

ESIP Education Committee Meeting Notes

Note: Google doc: for collaborative editing. ADD new notes above previous notes. Started May 2017 Grey highlight means the notes have been ported to the wiki

Telecon Info:

Third Thursday of every month @ 1 pm ET - 2 pm ET (can extend until 4pm)

Zoom Info - check the [ESIP events calendar](#)

The Shared Drive is called ESIP [Education Committee](#): If you want to add this shared drive to your own Google drive, click the link, sign in to Google, and request access. Or just email us!

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## **October 9, 2024**

Attendees: Luke, Carla, Bob Downs, Shelley Olds, Lisa Henderson, Joy Joyner, Alyssa Weisenstein, Kim Hula-Hetu

## **October 10, 2024**

Attendees: Kalo Haslem, Carla McAuliffe, Lisa Henderson, Becky Reid, Hannah Szvetcz

## **Agenda**

- Introductions and Intro to ESIP
- New to the Education Committee?....your email
  - Shelley Olds: [shelley.olds@earthscope.org](mailto:shelley.olds@earthscope.org)
  - Luke: [lboughf@yahoo.com](mailto:lboughf@yahoo.com), teacher - math - [AMS datastreme](#)
  - Lisa Henderson: teacher 9-12 - [hendo07@gmail.com](mailto:hendo07@gmail.com)
  - Bob Downs: [rdowns@ciesin.columbia.edu](mailto:rdowns@ciesin.columbia.edu)
  - Joy Joyner: [joseph.joyner.jr@verizon.net](mailto:joseph.joyner.jr@verizon.net)
  - Alyssa Weisenstein [teacheronatrip@gmail.com](mailto:teacheronatrip@gmail.com)
  - Kim Hula-Hetu - [kimhula-hetu@hotmail.com](mailto:kimhula-hetu@hotmail.com) - Retired high school science teacher, currently supply teaching/ creating curriculum/also taught post-secondary to train science teachers.Edmonton Alberta -
  - Carla McAuliffe: [carla\\_mcauliffe@strategies.org](mailto:carla_mcauliffe@strategies.org)
  - Kalo Haslem: [khaslem@harnett.k12.nc.us](mailto:khaslem@harnett.k12.nc.us) Tech facilitator @ middle school
  - Hannah Szvetcz: [hannahcrowe15@gmail.com](mailto:hannahcrowe15@gmail.com) Science teacher in GA
  - Becky Reid:
- What interests you about data and science
  - Real instruments - and be able to collect data - then being able to compare to a database

- Soil microbes - microbial activity
  - Soil types (soil society on america)
  - soil dissection
  - Citizen science type activities
  - Take real data to parse it to where high school students can understand it
    - As an out to lunch
    - How to take the data (one variable) and making a graph
  - Weather satellite - being able to interpret the images
  - [AMS DataStreme](#)
  - GeoEtc
  - Bring the “act of science” back into the classroom
  - AI? So many teachers are in “AI overload”
  - Back to the basics of science. How easy it is to do science in the classroom
  - Citizen Science - not seeing it as much anymore.
  - How to collect their own data
- Possibilities for a theme this year
    - AI was highly discussed
      - Benefits
      - Challenges
      - What is AI - vs Machine learning
      -
  - Out 2 Lunch recruitment - who can we get to present?
    -
  - Supporting classroom implementation
    - Stipend for small classroom implementation
      - Experimental, not much resources or time
      - Reward - an incentive
      - Paragraph summary / screen shot of data / student work
      - Helps pay for lab materials
      -
  - Website? Will ESIP Ed have our own page?
    - Google site was set up some years ago, it still exists
    - How can we share resources? Google may be the best way, as most teachers have access.
  - Budget areas
    - Classroom implementation stipend
    - AGI calendar activity
    - Summer Educator workshop held concurrently with ESIP Summer Meeting (10K budget, separate from ESIP -Ed budget)
  - Be on the lookout for a survey!

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Jun 19, 2024

Attendees:

Agenda

- Summer Workshop
 - [Planning document](#)
 - [Agenda](#)
 - Recruitment
 - Becky - sending email to participants what to expect, what to share,
 - Bring a laptop
 - Done - Shelley - to ask for full contact information
 - Becky will request participants about Sharing and that participants make a slide
 - 3 questions
 - Carla - will set up template
 - Team - add your slide
- Chair/ Vice Chair recruiting
- Query: What data resources are available for us to educate students on specific data skills? (Rusty Low)

May 16

Attendees: Shelley Olds, Becky Reid, Theresa Schwerin, Rusty Low, Carla McAuliffe, Nyssa Rayne, Desiray Wilson, Bob Downs, Rusty Low, Angie Rizzi, Daniel Segessnman

Workshop title: Exploring the Environment through Data

After the first break we will start:

3 x 90 min blocks

Block: Data literacy and My NASA Data

Block: Mosquitos & Land Cover

Block: Round Table + Bob Downs, Emily Sesno, Shelley Olds,

People presenting:

Maria Royle - NASA contractor - MyNASADData

~~Elizabeth Joyner - NASA contractor - support to Maria or/ & Nyssa~~

Nyssa Rayne - NASA contractor - STELLA-AQ

Emily Sesno - USGS - data access for Ed

Bob Downs - NASA SEDAC

Sheley Olds - EarthScope

Theresa Schwerin - IGES/GLOBE Observer

Who presented **NOAA CrowdMag** in the past? Do it again? (Presenter: Trinity Foreman, NOAA NCEI)

Organizers - Facilitators

Becky Reid

Carla McAuliffe

Shelley Olds

Margaret Mooney (not attending, will be retired)

Link to [Workshop Planning](#)

Please add workshop specific notes to the planning document - however if you don't have access, add your notes here.

- 1) Out 2 Lunch: Thursday, May 23, 2024

Utilizing Web Soil Survey in Earth Science Education

Start integrating soil data in your instruction using USDA NRCS's Web Soil Survey. Join in to learn more about available soil interpretations, new educator guides, and ways to use Web Soil Survey with students.

[Web Soil Survey - Home \(usda.gov\)](https://websoilsurvey.sc.egov.usda.gov/)

- 2) Earth Science Week Calendar Activity

AUGUST 2024



LEARNING ACTIVITY:

Monitoring Sustainability: Land Cover Data

GRADES 6–12

MATERIALS

- Computer with internet access
- Phone or tablet with internet access

Almost every aspect of life—our homes, food and water sources, and outdoor activities—is connected to the land on which we live. Landsat satellites collect images of Earth's surface but cannot zoom in enough to monitor small-scale changes. The Global Learning and Observations to Benefit the Environment (GLOBE) program has created an app so you can help fill in the gaps in the global dataset. This data can help countries and stakeholders ensure that intervention and mitigation efforts align with the achievement of the UN's Sustainable Development Goals' (SDGs). Monitoring land cover specifically helps address indicators under SDG 15: Life on Land. The Earth Observations for the Sustainable Development Goals (EO4SDG) Initiative highlights uses of satellite and geospatial data that help calculate SDG progress. SDG 15 has been a primary focus for EO4SDG because of the variety of existing data and tools which help monitor and protect land ecosystems.



Credit: The GLOBE Program



INSTITUTE
for
GLOBAL
ENVIRONMENTAL
STRATEGIES



EARTH OBSERVATIONS FOR THE
SUSTAINABLE DEVELOPMENT GOALS

Source: Earth Science Information Partners Education Committee based on material from the Institute for Global Environmental Strategies and Earth Observations for the Sustainable Development Goals. Developed by Carla McAuliffe, Institute for Global Environmental Strategies, and Lindsay Mossa, AGU.

PROCEDURE

- 1 Download the GLOBE Observer app and learn more about monitoring land cover at: <https://bit.ly/GLOBE-land-cover>.
 - a. Watch this video tutorial on the GLOBE Observer Land Cover tool: <https://bit.ly/GLOBE-land-tutorial>.
 - b. Locate an area to take land cover data and stand at the center of it.
 - c. Take a land cover observation by recording surface conditions and pictures in the GLOBE Observer app.
 - d. Collect land cover data at your site each season or more frequently depending upon changes that may be happening there.
- 2 To see how concerns related to land cover changes are monitored, visit the Sustainable Development Report at: <https://dashboards.sdgindex.org/map>.
 - a. Study the legend to see the overall progress toward all SDGs.
 - b. Click on the tile for SDG 15 at the bottom of the screen and notice how the map changes.
 - c. Study the legend and analyze the map to determine global progress toward achieving SDG 15.
 - d. On the left side of the screen, read the specific Indicators (sub-goals) for SDG 15.
 - e. Click on countries of interest for more information on their given ratings.
 - f. Click on each Indicator to see the level of performance toward it.

ANALYSIS

- 1 What other data might you collect or analyze to study factors that influence changes in land cover and/or how changes in land cover affect the environment or human life?
- 2 How does land cover data collected on the GLOBE Observer app relate to SDG 15's

- Indicators? What other data could be collected to monitor progress on SDG 15?
- 3 Explore the performance of other SDGs.
 - a. How does progress toward SDG 15 compare to the other SDG progress?
 - b. Choose a goal that interests you. What data could you collect or look for to help monitor progress toward this goal?

FURTHER STEPS

Explore national data at the USGS National Land Cover Database:
<https://www.usgs.gov/centers/eros/science/national-land-cover-database>.

NGSS CONNECTIONS

SEP: Analyzing and Interpreting Data
DCI: ESS3.C: Human Impacts on Earth Systems
CCC: Cause and Effect; Stability and Change

SDG CONNECTIONS

15: Life on Land
17: Partnerships for the Goals

April 18 2024

Participants: Shelley Olds, Carla McAuliffe, Rusty Low, Bob Downs,

Summer workshop planning

Teacher workshop agenda

Planning for Thursday Jul 25, 2024

Driving time to the workshop

After the first break we will start:

1030-12pm 90 minutes	Theresa Schwerin Mosquitos & Land Cover	
12-1pm	Lunch	

1pm - 230pm 90 minutes	(quick tool reviews) (approx 6 presenters x 15 min each—adjust as needed or round table on issues? (both?)) ● Bob Downs ● Shelley Olds - EarthScope Velocity Viewer and seismic to explore environment? ● No more than 2 virtual presenters	
230 break		
3—430	My NASA Data ?	
430-5pm	wrap up	
6pm	FUNding Friday Poster Making	

Meeting schedule on Sched: from <https://2024julyesipmeeting.sched.com/>

Thursday, July 25

7:30am EDT

8:30am EDT ESIP Lab Plenary

10:00am EDT Coffee Break Networking

10:30am EDT Breakout Sessions

12:00pm EDT Lunch (-130pm) - we'll start earlier

Breakouts (not listed yet)

2:30pm EDT Break

3:00pm EDT - session

6:00pm EDT FUNding Friday Poster Making

Topic ideas:

Round table - of local outreach programs / panel discussion local topics?

Land cover -- Carla

SEDAC activity -- Bob

Mosquito activity -- IGES / Rusty

Yuhun Douglas Rao -?

Emily Sesno - team

Local NOAA office - to present about tools - -- local educators

Tool summary time - add tools!:

NASA Eyes on the earth - <https://climate.nasa.gov/earth-now/>

Science on a Sphere

Promotion

Esprit list

Contacts through Elizabeth Joyner

Science coordinators

Globe?

Librarians

Theresa Schwerin - contacts

Local science/community/ school Newsletter -

Local connections

Yohun Douglas (NOAA) - to distribute to community

Goal to get a buzz multiple avenues

Ashville museum of science

[Buncombe County Schools](#)

ESPRIT: esprit@listserv.oneonta.edu

CSEN : csen-all@colorado.edu

Email promotions - 2 paths

Send just blurb

- Tools from NASA, NOAA, NWS, Concord, etc Climate office,
- How to not get caught by spam ... use the term 'no cost/ low cost (not free)
- Written to draw in middle school and high school teachers / environmental and earth, hazards,
- Use your home email address
-

Send with Blurb and 'flyer'
Shelley - advertisement Blurb
Becky - JPG - advertisement banner

Potential future projects

- Mail chimp - as a way to send hazard blasts
- Google groups - blasts on hot topic
- ESIP uses mailman - ESIP education committee
- ESIP4teachers -

Sharing an exciting project! From Sesno, Emily E <esesno@usgs.gov> wrote:
Aloha Shelley,

Thanks for the update - jealous of all who are at NSTA! I did want to touch base and planned to hop on today to let you know that **I submitted a proposal for this year's CDI RFP cycle with an amazing team and we were selected!**

The project will be taking a few USGS data sets and build interactive applications specifically for educators to use in their classroom to get students interacting with real data. With this, we will also build reproducible code templates (these will be RShiny apps) that anyone familiar with R could use to build their own lessons based on a different dataset (i.e. a researcher could turn their data into an activity). And lastly, **we plan to host a pilot workshop for educators in the Reston area (will host this at USGS headquarters there) to explore these products and have opportunity for collaboration.** We will also **provide science kits** that they can bring back to their classrooms. We hope this project is just the start to something that grows over time!

Ask for AGI earth science kits for the teachers (2023)

Feb 15

Participants: Shelley Olds, Becky Reid, Megan Carter, McAuliffe, Pat Reiff, Rusty Lowe, Bob Downs

Agenda

- Out2Lunch wiki- - a coming soon is being added .
<https://wiki.esipfed.org/Education/Out2Lunch>
 - Feb 29 at Noon central time - kick off!
 - Carla sending Allison's allisonmills@esipfed.org information

- Prepare for the Eclipse
- Spring virtual workshop - Mar 16, 2024 !
 - **See this folder for details:**
 - 📁 **2024 - Spring Eclipse Virtual Workshop**
 - 3 or 4 hours? Draft has 3hrs of content
 - Other sources for Eclipse viewing cards
 - No registration fee.
 - Hosts:
 - Pat and
 - Carla - 'policing host
 - Becky - Chat monitor
 - ESIP Fellow - potential?
 - Carla creating a registration Google form
 - Registration Page -
 - Confirmation page with zoom link
 - Link to AAS website for eclipse viewers / glasses: <https://eclipse.aas.org/eye-safety/viewers-filters>
 - Content
 - Also in the more info, add my website <https://space.rice.edu/eclipse>
 - Reminders
 - 2 days before send a reminder a few days before
 - Morning of
 -
 - ESIP Logos are at the bottom of this page <https://www.esipfed.org/about>
 -
- **Save the date for Summer Workshop**
- Summer workshop
 - Date?
 - Connections to local orgs - to advertise the workshop
 -

Jan 18, 2024

Participants: Pat Reiff, Carla McAuliffe, Shelley Olds, Becky Reid

Spring Virtual Workshop

- Saturday March 16, 2024 (**4 hours**)
 - 10 ET / 9 CT / 8am MT to 2pm ET / 1pm CT / 12 pm MT
 -
- Name of workshop: Eclipse 2024: The science, fun activities, and resources!
- Using Pat Reif's zoom (100- 300 person Zoom)
 - Choices of **full zoom** or webinar mode - using full zoom
- Update - no registration fee Registration fee? \$25
 - Square \$25 and free postcard kits

- Update - linking to Astronomy society's page - Eclipse Viewing cards
 - Purchase online?
 -
 - Shipping Eclipse devices
 - Postcard 3
 - One pager
 - \$10/shipping + (.5x30 = \$15)
- See agenda in more recent meeting Leads/Topics
 - 1 hr - The science of eclipse
 - Pat R:
 - 20 min Carla M – GLOBE Observer ECLIPSE App (Practice mode)
 - 10 Break
 - 1 hr Outside demonstration of equipment
 - (still zoom)
 - Pat
 -
 - 30 min: GOES launch and fair ...
 - Margaret M
- **Advertisement 'flyer'**
 - Becky will draft
- - NASA citizen science apps for the Eclipse:
 - <https://science.nasa.gov/eclipses/citizen-science/>
- Out2Lunch
 - "Prepare for the Eclipse!" Feb 29 - Eclipse and 'advert' for virtual workshop teaser
- NSTA
 - Planetarium
 - EarthScope

Dec 4, 2023

Participants: Shelley Olds, Margaret Mooney, Megan Orlando, Becky Reid, Howard Burrows, Elizabeth Joyner, Emily Sesno, Pat Reiff, Carla McAuliffe

Budget discussion for FY 2024

Draft:  ESIP_Education_Budget_FY24 - DRAFT.xlsx

The items on the budget agenda so far are (still totals attached at bottom of this email):

- Summer workshop
 - [potential] Recruitment budget, eg placing ads in regional teacher newsletters?

- [potential] Implementation grants: \$200 x 5 of the first who send in and meet the criteria
- Day 1 - Face to face
 - 20 teachers max w/ 1 day registration comped + increased stipend (~\$425)
 - 2 ESIP facilitators (registration comp'd; travel stipend) `
- ~~○ Day 2 - Virtual (separate from ESIP summer meeting week)~~
 - ~~■ more tool-oriented~~
 - ~~■ [potential] Facilitator contract (\$750 x 2)~~
- Activity in AGI calendar: \$1000 stipend total for developer(s) of activity
- Out2Lunch [no cost]

Note: We do not know what our budget max is yet.

ESIP Education Committee Budget Request through September 30, 2024					
Project	Budget Items/Community Need	Item cost	Items	Projected Costs	Deliverable
1) Share ESIP member learning resources					
1-A	Out to Lunch (OTL) webinars	\$ -	0	\$ -	10 minute demos (5 mons Q&A) of ESIP member Earth Science tools
1-C	AGI Earth Science Week Calendar Page Activity Development.	\$ 1,000	1	\$ 1,000.00	Activity in AGI Earth Science Week 2023 Calendar
	ESIP Education Committee Budget			\$1,000.00	
Summer educator workshops					2 one-day Educator Workshops
In Person one-day workshop held during ESIP Summer Meeting					
	Educator Participant Meeting Registration, F&B (Offset by 20 (\$20) teacher registrations)	\$ 415	20	\$ 7,900.00	
	Educator Participant Travel Support for	\$ 425	20	\$ 8,500.00	
	Facilitator Summer Meeting Registration	\$ 650	2	\$ 1,300.00	
	Partner: In person : \$625.00 x 2 Speakers (2x registration comp available)				
	Facilitator In-person Stipend	\$ 1,600	2	\$ 3,200.00	
Virtual one-day workshop					
	Virtual workshop Facilitator Stipend	\$ 750	2	\$ 1,500.00	
Additional items for spanning both workshops					
	Educator Implementation grants	\$ 200	3	\$ 600.00	
	Recruitment / advertising the workshops	\$ 100	1	\$ 100.00	
	Educator Workshop Total			\$ 22,400.00	
	Adjusted with \$5k NOAA support			\$ 17,400.00	ESIP cost

This is your opportunity to suggest an item to the plan and related budget; to offer to be a facilitator at the workshop; lead the development of the AGI calendar activity; and/or lead something new!

What's in it for you?

- * The satisfaction of contributing to Earth Science education in its many forms,
- * Share your program's cool science more broadly and...
- * You could receive ESIP Summer meeting registration and a travel stipend for being a facilitator of the one-day Summer Education workshop: The two facilitators lead the planning, coordinating, and preparing with the Committee and then lead the workshop. The two facilitators are provided The virtual workshop will be run in a separate week, or...
- * [to be discussed] Receive stipend for facilitating (see bullet above) the one day virtual workshop.... or...
- * Stipend for turning / creating an activity for the AGI calendar.

Notes and discussion

Possible workshop topic: introduce Harkness Method in Earth Science. The idea is to involve everyone in roundtable discussions around issues. This can lead to a tool for AGI (Artificial General Intelligence) using community input in dialogue form developing “propositional attitudes” and belief change and maintenance.

Virtual workshop around Eclipse in March

- timing could be before eclipse - [tricky area - heavier lift; other committees do not - have to use new people]
- GLOBE Eclipse? – Carla willing to connect with a facilitator
- Total number of people (300 Pat Reiff's Zoom limit)
- Before April 8 - eclipse
- March 11, 18, 25 - potential dates (not March 25 - NSTA); the sooner we nail down a date, the sooner we can start recruiting
- Record the session

North Carolina ESIP Summer In-Person Workshop -

General Ideas:

- **Budgeting for 15 participants**
- Could target informal (including museum and library science folks) as well as K-12 educators
- Facilitators: Emily Senso?, Beck Reid, Shelley Olds (chair) - travel stipend

Recruiting Thoughts:

- Has a strong NC environmental education association (they do certificate of completion that goes towards a teacher's certificate program - might)
- Smokey mountains STEM collaborative - Randi Neff
- NASA Space Grant - Jobi Cook
- NOAA Sea Grant program - both managed out of Raleigh, Jobi Cook
- NC Science teachers association (<https://www.ncsta.org/>)
- NC Libraries

AGI Earth Science Week Calendar Activity 2024-2025: Theme: Earth Science Everywhere; 9,000 produced and included in AGI's Annual Earth Science Week kit mailed to teachers and distributed at conferences.

- From AGI, “ Geoscience knowledge, products, and applications can be found in all parts of our lives. The buildings we live in, the products we use, the roads we drive on, the vehicles that get us from place to place, and much more all depend on geoscience in multiple ways. Geoscience helps us understand Earth’s materials and the rapid or long-term changes that can affect many aspects of our lives and communities. By encouraging recognition of the roles the geosciences play across these settings, the theme “**Earth Science Everywhere**” will highlight connections across disciplines in STEM subjects, the humanities, and others. These connections can be used to help all people understand how geoscience relates to their interests, their communities and their futures.”
- Rusty Low and Carla McAuliffe are interested in developing this activity. They are leaning toward a citizen science theme, such as an activity around the GLOBE Observer App.

November 16, 2023

Participants: Shelley Olds, Rusty Low, Megan Carter, Margaret Mooney, Elena Yulaeva, Becky Reid, Bob Downs

- Next meeting Dec 7
- We plan to talk about the items in the budget, we'd like your input before this date, or can come to ... opportunity to provide input
 - Budget
 - **Workshop**
 - 2 ESIP people for stipend
 - Recruitment cost - getting our workshop in front of NC and region ES teachers - corral groups of teachers
 - Can we offer CEU credits?
 - Day 1 - Face to face
 - 20 teachers ;
 - 1 day registration
 - ; ~~with participants watching/ participate through chat~~
 - Day 2 -Virtual Online with more tool oriented demos
 - No stipend but offer implementation
 - **Increasing teacher stipend** from \$300
 - (what does it cost to drive from Charlotte and stay one night?)
 - 1 night in hotel = \$135 + tax
 - 250 miles x 2 Raleigh, NC to Ashville, NC .655 *500 = \$328
 - 130 miles x 2 Charlotte to Ashville 260 x .655 = 170
 - - it has been the same for 15 years

- **Implementation grants**
 - First 5 educators who implement an item from either day and show evidence (~\$2-300) by this date
- **Out2Lunch**
- **Calendar activity in AGI - stipend**
- Let's use [this doc](#) from 2022 to draft budget
- Dec 7 to discuss these vs any new items
-
- Dec 7
 - ESIP zoom channel 4pm ET
 - 9- 10 am MT (only if necessary); 12 (1pm preferred) - 2pm MT
 - Pat, LuAnn, Carla
- Tanya Torrez - January meeting - teaching climate change

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**October 19, 2023**

**Participants:** Shelley Olds, Pat Reiff, Rusty Low, Carla McAuliffe, Megan Carter, Margaret Mooney, Becky Reid (late)

### **Results of survey for Focus of ESIP Education: *Clusters***

#### ***ESIP community members***

- community science opps
- support esip members
- resource repository
- involve more esip members

#### ***Educators***

- teacher pd
- educators
- instructional resources
- classroom tools
- monthly email activities
- out2lunch

#### ***Data science***

- data literacy tutorial
- data literacy
- data life cycle
- artificial intelligence

- use chatgpt intelligently

#### *Discussion:*

Making the data science learning resources available

- Connect to the Earth Science
- Teach the internship through a Data life cycle approach
  - Submitting to github and zenodo
- Reaching into ESIP members for resources
- Big data -

#### AI

- 25% of 50 person cohort (high school students) wanted to use AI research tools
  - Ex Google Earth engine, random forest
- Big data connections - automated systems
- Using it for good and for bad

#### *Our expertise*

- Educational wrapper
- Short set slides primer
- Tools available
  -
- Observing - how to

#### *More discussion*

- Reaching out to our community to find out data literacy resources they have
- Understanding data literacy
- Understanding open data ... sharing ... the metadata about the data (where did it come, describing the accuracy)
  - Avoiding disinformation / misinformation
- Pointing to datasets
- 
- Carla - GIS
- AI - weather camp - Margaret
  - Students using AI to deal with lots of data
  - Lightning cast by researchers (NOAA funded to issue warnings)
- *Winter session?*
  - *Discuss of using AI in earth science*
    - *Microsoft Azure AI*
    - *Google Tensor Flow*
- We are all learning
- High school - and data science
  - Still need math
- Helpful for teachers

- Recognizing spoofs - how to recognize bs science in earth science
- Megan -
  - likes the direction
  - Incorporate into multiple ways (in our meetings - mini lectures, out2lunch, july mtg)
  - Trust of data - and the tools
    - Topic: examining data and determining fitness for use
  - Think: grade band(s)
- Data science - what is it?
  - Use as bridge for non-math-loving students to earth science (and other sciences)
  - As a way to sneak in the algebra
- Elementary students
  - Observation of phenomena
  - The world is observable
- I agree, Pat. It just might be easier for the group to pursue a particular focus if they pick a certain grade range for the coming year (can always shift over time).
- Trying to think about how to scope in a manageable way.
- 
- Budget
  - On our Nov 16 call, we will be discussing these items that have a budget implication
    - Item 1)
    - Item 2)
  - 
  - Workshop
  - Increasing teacher stipend - its been the same for 15 years
  - Hybrid - implications
  - Implementation grants
  - Stipend for online teachers
  - Due End November (good to aim to submit right after Nov 16 EdComm meeting).
  - Earth science calendar - needs to be an open call to everyone - who wants to do?
  -

#### Other tasks

- Email - Invite teachers to AGU? Eclipse talks - let teachers know about

***Download of 1030am MT 2023-10-19***

What should be the focus for ESIP Education this year?

15 responses

A word cloud of responses for the question 'What should be the focus for ESIP Education this year?'. The words are arranged in a roughly circular shape. The most prominent words are 'involve more esip members' (blue), 'support esip members' (green), 'instructional resources' (pink), 'artificial intelligence' (green), 'data literacy tutorial' (red), 'educators' (orange), 'classroom tools' (blue), 'out2lunch' (blue), 'monthly email activities' (pink), 'data literacy' (yellow), 'use chatgpt intelligently' (red), 'teacher pd' (purple), 'data life cycle' (blue), 'community science opps' (yellow), and 'resource repository' (orange).

Sept 2023 - survey

To vote: <https://www.menti.com/alpwe7j6nutx/0>

Results:

<https://www.mentimeter.com/app/presentation/alsp3zpq4bgdcfzzo5yh6jssmm8amk8d/vj389kxg3frp>

August 17, 2023

**Participants:** Margaret Mooney, Becky ,  
Elena Yulaeva, Carla McAuliffe, Shelley Olds

**Agenda:**

**1) Debrief of ESIP educator workshop**

- a) One slide
- b) Follow on workshop on (Annular Solar Eclipse...**October 14, 2023** is the first one coming up) Pat sharing a tapestry that allows teachers and students to stay inside and view the eclipse;
  - i) [https://space.rice.edu/eclipse/safe\\_eclipse\\_observing.html](https://space.rice.edu/eclipse/safe_eclipse_observing.html)
  - ii) [https://space.rice.edu/eclipse/img/eclipse\\_prepare\\_poster.jpg](https://space.rice.edu/eclipse/img/eclipse_prepare_poster.jpg)
  - iii) National Parks Meeting
- c) Photos and presentations - could be pulled into Ed Committee Shared Drive
- d) Marget to send emails to Carla and Shelley - Unable to send past ESW kits, but happy to mail to interested teachers (Please make the interested, registered, and attendee emails available).

**2) Transitions...**

- a) **Recruitment:**

- i) Funding Friday winners (Vicky Gorman, Eric Walters)
- ii) Lisa
- iii) Meeting time is awkward
- iv)
- v) Agencies sending someone to the calls? Nina Jackson?
  - (1) NASA, NOAA, USGS - polling the agencies, who
  - (2) Draft email to ESIP ALL -
- vi) Why come to the meetings?
  - (1) Disseminate
  - (2) Share ideas
  - (3)

### 3) debrief:

- a) 15 years of workshops
- b) 40 expressed interest; 14 registered; 7 attended (Emails?)
- c) \$300 stipend has remained the same over time
- d) Presenters from ESP founders, NASA, NOAA

### 4) Charter - read on your own

- a) Standing Committee for Education. Its purpose is to make accessible to educators and learners at all levels in both formal and informal educational contexts the Earth science data, information, tools, and curricula available within ESIP [... more](#)

### 5) Budget Implications

### 6) Out 2 Lunch:

- a) Pat Reiff to give an ad for an online training that would occur before October 14, 2023; perhaps a tour of her website
- b) Carla – an Out 2 Lunch around the Hurricane Activity in the Earth Science Week kit
- c) Others from Gordon Research Conference on Visualization in Science Education
- d) Paleontological Research Institute
- e) Anyone on the committee have something?
- f) Elena - follow on when curriculum is ready

### 7) Ideas for next year - Do we want a project this year as in the past? (e.g. drones, coding)

- a) Wildfire - scaling up project (Elena) - combines AI, data, modeling
- b) Theme for summer / winter workshops
  - i) Given attendance this summer and that the main ESIP workshop was hybrid, Carla suggests we look at hybrid for next summer
  - ii) CLEAN folks??
  - iii) Hazards focus?
  - iv) Climate focus?
- c) ChatGPT - ethical uses; modeling;

- 8) **Earth Science Week Calendar Activity 2023-2024: October 8 to 14, 2023; Theme:**  
Geoscience - Innovating for Earth and People
- 9) **- social media of this activity!**

JULY 2024

LEARNING ACTIVITY:

## Simulating a Hurricane to Assess Hazard Risk

GRADES 6–12

### MATERIALS

- Computer with Internet access

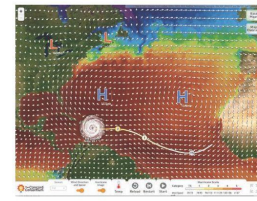


Source: Earth Science Information Partners.  
Based on materials from The Concord Consortium at <https://learn.concord.org/earth>.  
Supported by the National Science Foundation (NSF) under Grant No. DRL-1812362.  
Developed by the ESIP Education Committee which promotes the use of Earth science data in education and offers 15 minute "Out2Lunch" webinars (<https://wiki.esipfed.org/Education/Out2Lunch>) highlighting Earth Science tools and resources for educators.

Geoscientists use simulations based on computational models to help them predict the risks and impacts of natural hazards to people and infrastructure. Hurricanes are a major natural hazard and can have devastating effects. Simulations can help us better understand how hurricanes form and move. In this activity, you will change factors such as temperature and the position of high- and low-pressure systems to investigate their effects on hurricane trajectory and intensity.

### PROCEDURE

- 1 Read an article and watch a video about how hurricanes form at <https://scijinks.gov/hurricane/>.
- 2 Launch the Hurricane Explorer simulation at <https://hurricane.concord.org/>. Turn on the **Hurricane Image** and click **Start**. Take a screenshot after each time you change conditions and run the simulation. Paste these into a document to keep a record of your changes and their effects.
- 3 Observe the storm's path and how its category changes over time once it becomes a hurricane.
- 4 Switch the Base Map to a **Street Map**. Where does the hurricane make landfall? Zoom in on Jacksonville, Florida.
- 5 Turn the **Storm Surge Overlay** on and off to see what structures and roads are affected. What parts of Jacksonville experience the highest storm surge?
- 6 Sea surface temperature changes as seasons change. Click **Reload** and change the season to **Winter**. How does the path of the storm compare to its path to **Fall**? Investigate **Spring** and **Summer**. In which season did the storm fizzle out just after leaving Africa?
- 7 **Reload** the simulation then click and drag the low- and high- pressure systems (Ls and Hs) to new positions. Notice how wind direction (arrows) and speed change with different positions of the Ls and Hs. Run the simulation several times, moving the Ls and Hs to new locations to investigate how the path of the storm changes.
- 8 On August 25, 2017, Hurricane Harvey made landfall near Corpus Christi, Texas as a Category 4 hurricane. It caused approximately \$125 billion in damage, affecting over 200,000 homes. Learn more about this storm at [https://www.weather.gov/crp/hurricane\\_harvey](https://www.weather.gov/crp/hurricane_harvey).
- 9 **Reload** the simulation and set the Base Map to **Street** and the Overlay to **Storm Surge**. Change other factors until you simulate the conditions leading to a hurricane forming in the Gulf of Mexico and making landfall near Corpus Christi, Texas.
- 10 Switch to the **Precipitation Overlay** to examine changes in rainfall along the storm's path.



Screenshot from the Hurricane Explorer simulation. Credit: McAuliffe, creative commons

- 11 Consider storm surge effects. If a storm were to take the path you created, what cities and structures would be most at risk?

### ANALYSIS

- 1 Summarize what factors cause a hurricane to strengthen and use evidence from the simulation to support your summary.
- 2 Read the article, "A Force of Nature: Hurricanes in a Changing Climate," <https://go.nasa.gov/44RkAlz>. Simulations are innovative technologies that enable geoscientists to model current and future conditions affecting the trajectory and intensity of hurricanes. What do global climate models predict about hurricanes in the future?

### NGSS CONNECTIONS

**SEP:** Developing and Using Models  
**DCI:** ESS3.B: Natural Hazards; ESS3.D: Global Climate Change  
**CCC:** Patterns; Cause and Effect

### SDG CONNECTIONS

- 11: Sustainable Cities and Communities
- 13: Climate Action

a)

**May 18, 2023**

**PRESENT:** Margaret Mooney, Carla McAuliffe, Becky Reid, Megan Carter, Howard Burrows, Elena Yulaeva

### Agenda:

- 1) ESIP Teacher Workshop: Megan Carter and Margaret Mooney - Draft agenda below

**Wednesday July 19th** (afternoon and evening)

- 1:30pm Welcome, ESIP overview, and Ice Breaker activity: Margaret Mooney and Becky Reid
- 2:00pm Network for Earth-space Research, Education & Innovation w/ Data (NEREID): Becky Reid
- 2:30pm Upcoming Eclipses: Pat Reiff
- 3:30pm Break
- 4:00pm Eclipse viewing activities (outside): Pat Reiff
- 5:00pm Eclipses Around The World: Tamara Ledley
- 5:30pm ESIP-wide Research Showcase poster reception

**Thursday July 20th** (all day)

- 8:30am NOAA Satellites Virtual Science Fairs: Margaret Mooney & Vicky Gorman
- 9:15am NE Ecosystems DataJam: Stace Beaulieu

10:00am Break

10:30am EnRoads Climate Interactive: Tamara Ledley

Noon Lunch

1:00pm NASA Socioeconomic Data and Applications Center (SEDAC): Bob Downs

1:30pm

2:30pm Break

3:00 Teacher travel programs: Becky Reid

4:00 Break

*4:00pm FUNding Friday overview: Margaret Mooney*

*4:10pm Taking it back to the classroom discussion: Becky Reid*

*5:10pm Evaluations and workshop wrap-up: Margaret Mooney*

*Evening ESIP-wide FUNding Friday poster making session*

**NOTE:** *It would be great to have a USGS/geology activity which Shelley Olds was going to present but turns out she'll be defending her PhD that week! (Go Shelley go)*

**Anyone know someone from USGS attending the summer meeting that could share a teacher activity?**

- 2) The American Geoscience Institute (AGI) sponsors Earth Science Week (October 8 -14 2023). 9,000 Earth Science Week kits are produced and distributed to teachers via mail & professional conferences. They include the calendar and other educational materials.
  - a) 2023 Calendar Activity. The 2023 theme is: Geoscience Innovating for Earth and People

JULY 2024

LEARNING ACTIVITY:

Simulating a Hurricane to Assess Hazard Risk

GRADES 6–12

MATERIALS

- Computer with Internet access

Geoscientists use simulations based on computational models to help predict the risks and impacts of natural hazards to people and infrastructure. Hurricanes are a major natural hazard and can have devastating effects. Simulations can help us better understand how hurricanes form and move. In this activity, you will change factors such as temperature and the position of high- and low-pressure systems to investigate their effects on hurricane trajectory and intensity.

**PROCEDURE**

- Read an article and watch a video about how hurricanes form at <https://scijinks.gov/hurricane/>.
- Launch the Hurricane Explorer simulation at <https://hurricane.concord.org/>. Turn on the Hurricane Image and click **Start**. Take a screenshot after each time you change conditions and run the simulation. Paste these into a document to keep a record of your changes and their effects.
- Observe the storm's path and how its category changes over time once it becomes a hurricane.
- Switch the Base Map to a **Street Map**. Where does the hurricane make landfall? Zoom in on Jacksonville, Florida.
- Turn the **Storm Surge Overlay** on and off to see what structures and roads are affected. What parts of Jacksonville experience the highest storm surge?
- Sea surface temperature changes as seasons change. Click **Reload** and change the season to **Winter**. How does the path of the storm compare to its path to **Fall**? Investigate **Spring** and **Summer**. In which season did the storm fizzle out just after leaving Africa?
- Reload** the simulation then click and drag the low- and high- pressure systems (Ls and Hs) to new positions. Notice how wind direction (arrows) and speed change with different positions of the Ls and Hs. Run the simulation several times, moving the Ls and Hs to new locations to investigate how the path of the storm changes.
- On August 25, 2017, Hurricane Harvey made landfall near Corpus Christi, Texas as a Category 4 hurricane. It caused approximately \$125 billion in damage, affecting over 200,000 homes. Learn more about this storm at [https://www.weather.gov/crp/hurricane\\_harvey](https://www.weather.gov/crp/hurricane_harvey).
- Reload** the simulation and set the Base Map to **Street** and the Overlay to **Storm Surge**. Change other factors until you simulate the conditions leading to a hurricane forming in the Gulf of Mexico and making landfall near Corpus Christi, Texas.
- Switch to the **Precipitation Overlay** to examine changes in rainfall along the storm's path.

**ANALYSIS**

- Summarize what factors cause a hurricane to strengthen and use evidence from the simulation to support your summary.
- Read the article, "A Force of Nature: Hurricanes in a Changing Climate," <https://go.nasa.gov/4ARkAlz>. Simulations are innovative technologies that enable geoscientists to model current and future conditions affecting the trajectory and intensity of hurricanes. What do global climate models predict about hurricanes in the future?

**NGSS CONNECTIONS**

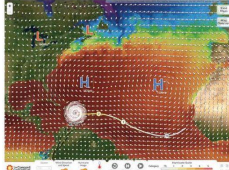
**SEP:** Developing and Using Models  
**DCI:** ESS3.B: Natural Hazards; ESS3.D: Global Climate Change  
**CCC:** Patterns; Cause and Effect

**SDG CONNECTIONS**

**11:** Sustainable Cities and Communities  
**13:** Climate Action

Source: Earth Science Information Partners. Based on materials from The Concord Consortium at <https://learn.concord.org/earth>. Supported by the National Science Foundation (NSF) under Grant No. DRL-1812362. Developed by the ESIP Education Committee which promotes the use of Earth science data in education and offers 15-minute "Out2Lunch" webinars (<https://wiki.esipfed.org/Education/Out2Lunch>) highlighting Earth Science tools and resources for educators.

**ESIP**



Screenshot from the Hurricane Explorer simulation. Credit: McAdams, creative commons

b)

c) Last Year's (July 2023 entry below). The entire Calendar is here:

[https://www.earthsciweek.org/sites/default/files/Calendar/ESWcalendar22-23\\_AD\\_A\\_221004.pdf](https://www.earthsciweek.org/sites/default/files/Calendar/ESWcalendar22-23_AD_A_221004.pdf)

JULY 2023

LEARNING ACTIVITY:

Climate Change and Resilience

GRADES 6–12

MATERIALS

- For each student or team of students:
- Computer with Internet access

The United Nations advocates for 17 Sustainable Development Goals (<https://sdgs.un.org/goals>), one of which includes taking urgent action to combat climate change and its impacts. *Climate resilience* is the capacity of a community, business, or natural environment to retain essential functions before, during, and after changes to climate occur.

Some ways to contribute to the resilience of your community include making choices that reduce greenhouse gas emissions and starting or getting involved in projects that prepare a population or habitat for impacts of climate change. The U.S. Climate Resilience Toolkit (<https://toolkit.climate.gov/>) is a government site created to help people understand potential climate hazards so they can protect what is important to them.

In this activity, you will consider actions to make your community more resilient. You will use guidance from the U.S. Climate Resilience Toolkit along with a data-based tool to tackle a specific project of interest to your class. Planning and carrying out this community project is one action that you can take to help people move toward a more sustainable world.

**PROCEDURE**

- Go online to <https://bit.ly/climate-toolkit-case-study> to read about how students in Mount Washington, Kentucky, designed a low-impact landscape to reduce stormwater runoff around a new county library. Summarize the students' plan.
- Go to <https://bit.ly/toolkit-resilience> to watch the "Steps to Resilience" video for an overview of an approach you can use to help address impacts of climate change.
- With your teacher's help, divide your class into teams of four to five students.
- Watch the "Step 1: Explore Hazards" video at <https://bit.ly/toolkit-hazards>. Identify what your community cares about. These include specific people, services, and places (such as neighborhoods, historic sites, schools, and tourist attractions) that make your community special or unique. These are called assets.
- Go to <https://bit.ly/NOAA-Climate-Explorer> to explore potential climate and extreme weather hazards using "The Climate Explorer" tutorial version.
  - Type in your city or county, then choose Climate Graphs. Explore the Observations, Modeled History, and projected scenario data for Lower Emissions and Higher Emissions.
  - Use the drop-down menu at the top that is defaulted to Average Daily Maximum Temperature (°F) to switch and explore other variables.
- Go to <https://bit.ly/neighborhoods-risk> to use "Neighborhoods at Risk" to explore your community and identify neighborhoods where people might experience unequal impacts from hurricanes, flooding, and extreme heat.
- Choose an asset that is being affected by a hazard that you can impact, such as a building, business, park, or road.
  - How is this asset being affected by a hazard?
  - Discuss with your team members how vulnerable and at risk your asset is. For example, is there a roadway near a hospital that often floods during extreme rainfall events?
- Come together as a class and select one team's asset-hazard pairing that will become the focus of your community project. Investigate options and consider potential solutions for your asset-hazard pairing. Develop a plan. Finally, if possible, implement that plan.

**NGSS CONNECTIONS**

**SEP:** Defining Problems, Analyzing and Interpreting Data, Designing Solutions  
**DCI:** ESS3.D: Global Climate Change; Human Impacts on Earth Systems  
**CCC:** Patterns; Cause and Effect

**SDG CONNECTIONS**

**11:** Sustainable Cities and Communities  
**13:** Climate Action

Source: Based on resources from <https://toolkit.climate.gov/>. Developed by the Earth Science Information Partners (ESIP) Education Committee which promotes the use of Earth science data in education and offers 15-minute "Out2Lunch" webinars (<https://wiki.esipfed.org/Education/Out2Lunch>) highlighting Earth Science tools and resources for educators.

**ESIP**



Screen shot from Headwaters Economics' "Neighborhoods at Risk" analysis tool (for step 6 of the learning activity). Credit: McAdams, creative commons

d)

e) Carla is willing to present either or both virtually this summer (She has some ESW kits from last year and previous years that could be mailed to Margaret for the summer workshop).

3) Shelley Olds nominated as next Education Chair!

### **April 20, 2023**

**PRESENT:** Margaret Mooney, Kalo Haslem, Ellen Dow, Howard Burrows, Bob Downs, Rusty Low, Carla McAuliffe, Megan Carter, Elisha Wood, Elena Yulaeva

#### **Agenda:**

- 1) KBase demo (<https://www.kbase.us/engage/educators/>): Ellen Dow
- 2) Vermont Library Conference Report: Howard Burrows
- 3) ESIP Teacher Workshop: Margaret Mooney
- 4) Succession Planning: ESIP is currently seeking nominations (including self nomination) for elected positions, which includes the chair of the [Education Committee](#). Could this be you???

### **March 16th, 2023**

**Present:** Margaret Mooney, Tamara Ledley, Bob Downs, Kalo Haslem, Rusty Low, Megan Carter, Becky Reid

#### **Agenda:**

- 1) Teacher Workshop in Burlington - any ideas for a catchy title?  
ESIP theme this year is "Opening Doors to Open Science" maybe we could use the 1st two words, for example, *Opening Doors to STEM engagement*, or *Opening Doors to Earth Science Data*, or ... *Opening Student Doors to Open Earth Science, inspiring the next generation*

### **February 16th, 2023**

Present: Margaret Mooney, Carla McAuliffe, Elena Yulaeva, Becky Reid, Megan Carter, Alison Mills, LuAnn Dahlman, Emily Sesno, Pat Reiff, Shelley Olds

## Agenda:

### 1) Meet/welcome USGS educators

### 2) Emily Sesno, PICASC

- a) Marine biologist and informal educator
- b) Pacific Island Climate Adaptation Science Center
- c) Climate adaptation research
- d) <https://picasc-education-usgs.hub.arcgis.com/>
  - i) Form for USGS to add datasets and how to get to, download, use,
    - (1) Form used to collect info about data
    - (2) <https://forms.office.com/pages/responsepage.aspx?id=urWTBhhLe02TQfMvQApUIMg6dCQ1gjZNq-08GqGE1mhURVINTIRPMFVIRFJVRFNZSEpQUzhPNkVINS4u>
  - ii) <https://picasc-education-usgs.hub.arcgis.com/>
  - iii) <https://www.usgs.gov/educational-resources/usgs-data-schools>
  - iv) <https://pi-casc.soest.hawaii.edu/>
  - v) <https://www.usgs.gov/programs/climate-adaptation-science-centers/pacific-islands-casc>
  - vi) Summer workshop (July 10-14): [EARTH 2023: Honolulu, Hawai'i • MBARI](#)
  - vii) <https://mynasadata.larc.nasa.gov/basic-page/earth-system-story-map-collections-lesson-plans>
- e) Help get the word out to your Hawaii teachers!
  - i) <https://www.mbari.org/workshop/earth-2023-honolulu-hawaii/>

### 3) Update on NEREID Summit - new dates, June 12 - 14

<https://www.earthspacenet.org/meeting-info>

### 4) Eclipse project - Cape - centerline telescopes

### 5) Out2Lunch - Seeking presenters from the ESIP community for March 2023 and beyond.

- a) February 22 — Brian Campbell, IGES **Title:** "Looking at Tree Height with GLOBE, ICESat-2 and Open Altimetry" **Description:** Tree Height is the number one indicator of how well an ecosystem can grow trees. Using online data tools, we can compare the GLOBE Program's ground-based tree height data to the space-based tree height data from NASA's Ice, Cloud, and land Elevation Satellite-2 (ICESat-2) Mission.
- b) March 1 — Cassie Soeffing, IGES
- c) March 8 — Pat Reiff, Eclipse
- d) Emily Sesno, PICASC/USGS?
- e)

### 6) Earth Science Week Calendar — Anyone interested in helping? Earth Science Week 2023 will explore established and emerging technologies and techniques used by geoscientists as they play a growing role in society through developing stable infrastructure; fostering sustainable water, mineral and energy resources; analyzing

and applying data about the Earth; and **keeping people safe from natural hazards**.  
Due **Monday, April 3**.

- 7) **Budget brief** — Funding is waiting on NOAA contract to be signed.
- 8) **Teacher Summer Workshop** — Hold the date!! July 18 & 19.

**Links shared today:**

- <https://www.communitycommons.org/>

**January 19, 2023**

Present: Margaret Mooney, Carla McAuliffe, Elena Yulaeva, Bob Downs, Becky Reid, Howard Burrows, Pat Reiff, Rusty Low, Megan Carter, Alison Mills

**Agenda:**

- 1) **ESIP Budget. (through September 30th 2023)**
- 2) **Feedback on [Education Committee Poster for Winter Meeting](#)**. The goal of this presentation is to encourage folks from the broader ESIP community to become involved with the ESIP education committee.
- 3) **Earth Science Week 2023**. Theme: Innovating Earth and People  
<https://www.americangeosciences.org/news/earth-science-week-2023-theme-announced-geoscience-innovating-earth-and-people> Earth Science Week 2023 will explore established and emerging technologies and techniques used by geoscientists as they play a growing role in society through developing stable infrastructure; fostering sustainable water, mineral and energy resources; analyzing and applying data about the Earth; and keeping people safe from natural hazards. The celebration also will highlight the wide range of fascinating and rewarding careers in the geosciences, and the ways that those careers are vital to understanding, monitoring, and living on the planet.

*Who would like to help develop an activity for the calendar?*

Carla has ideas around natural hazards, but perhaps there are other thoughts?

- 4) **Teacher Summer Workshop**. Margaret and Pat will be attending. There is an NSF proposal that has been submitted. The theme is the Eclipse. Workshop will take place in Vermont. Can start recruiting April 3 at VT library conference that Howard Burrs is co-organizing.
- 5) **Outstanding PD for ESIP/SGCI Virtual Training Series** - insights from those participating “live”? Becky offered to share in the December, now January meeting.

Materials from the ESIP/SGCI Virtual Training Series (see especially the slides):

[https://drive.google.com/drive/folders/1pQjbwi5FjPBfyPu\\_3boMDU3ZtpXF2s30](https://drive.google.com/drive/folders/1pQjbwi5FjPBfyPu_3boMDU3ZtpXF2s30)

- 6) **Out2Lunch** - Seeking presenters from the ESIP community for 2023.

GLOBE Eclipse App?? Do we have a contact? Rusty Low

Pat Reiff Out2Lunch

Thursday at 1 Eastern, possible

- 7) NEREID Earth Space Network (Becky) February 28 to March 2

<https://www.earthspacenet.org/meeting-info>

8)

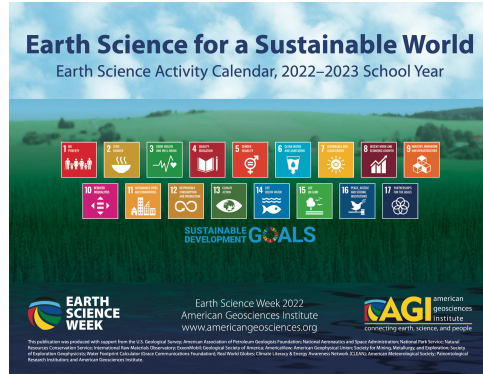
**We did not hold a December meeting as many of our members were at the AGU meeting.**

### **November 17, 2022**

Present: Carla McAuliffe, Rusty Low, Desiray Wilson, Elena Yulaeva, Kalo Haslem, Angie Rizzi, LuAnn Dahlman, Pat Reiff, Megan Carter, Shelley Olds, Becky Reid

Agenda:

- 9) **New Education Committee Chair!** Carla has stepped down and Margaret has volunteered to serve. This should be official pretty soon, by our December meeting, for sure.
- 10) **News from the Program Committee.** We discussed ways to build capacity to engage new leaders for ESIP committees and clusters. Two key strategies recommended for recruiting others include inviting them to “Join Us” and emphasizing that their voices are missing and their perspectives are valued.
- 11) **Earth Science Week** (sponsored by the American Geosciences Institute - AGI) was last month October 9 - 15, 2022. The theme was “Earth Science for a Sustainable World” and focused on the United Nations 17 Sustainable Development Goals. We created a calendar activity for a physical calendar that AGI produced/distributed to 9,000 K-12 educators. It is mailed to teachers and handed out at professional conferences, such as the National Science Teachers Association annual conference. Our activity is “Climate Change and Resilience”. The calendar activity also exists in PDF format with clickable links here. (We are in the month of July 2023 on page 26.)  
[https://www.earthsciweek.org/sites/default/files/Calendar/ESWcalendar22-23\\_ADA\\_221004.pdf](https://www.earthsciweek.org/sites/default/files/Calendar/ESWcalendar22-23_ADA_221004.pdf)



a)



b)

## 12) Eclipse Education NSF proposal: GP-IN: Teacher and Student STEM engagement around the Great American Solar Eclipses

- a) Margaret Mooney and Pat Reiff are submitting a response to a [Dear Colleague Letter](#) (via the [NSF GEOPATHs](#) program). Around the [Great American Eclipse](#).

This may have changed, but this is a summary as of a few weeks ago of the activities of the proposal:

- b) Working through the Earth Science Information Partners (ESIP) Education Committee, we will engage over 200 middle school, high school and community college educators nationwide and support over 100 teachers in total states to get their students outside to safely experience the April 2024 Solar Eclipse while collecting key data like changes in temperature and phenology. Five workshops are planned for this project; one in Vermont at the July 2023 ESIP summer meeting, one online, and three in south Texas Hispanic communities. Teachers who attend these workshops will receive eclipse kits for their classrooms and be invited to a Geoscience Learning Ecosystem (GLE) community that commences after the ESIP Teacher Workshop with monthly online meetings throughout the 2023-2024 school year. Educators participating in a GLE for the 2023-2024 school year will engage in data-based activities using public domain datasets and scientific analysis tools, interacting with their peers while receiving additional geoscience content from ESIP members during monthly webinar sessions. Educators will enact these activities with their students during the 2023-2024 school year. All activities will be freely available for other educators to use, hosted on the ESIP Education Committee's website. In addition, webinars will be

recorded and posted online, increasing the reach of the project after funding ends.

- 13) **Outstanding PD for ESIP/SGCI Virtual Training Series** - insights from those participating “live”? Becky will share next meeting.

Materials from the ESIP/SGCI Virtual Training Series (see especially the slides):

[https://drive.google.com/drive/folders/1pQjbwi5FjPBfyPu\\_3boMDU3ZtpXF2s30](https://drive.google.com/drive/folders/1pQjbwi5FjPBfyPu_3boMDU3ZtpXF2s30)

- 14) **Out2Lunch** - Seeking presenters from the ESIP community for January 2023 and beyond.

- a) Rusty will contact — an education resource that takes mosquito data to analysis  
Liz Burke upper elementary and middle school
- b) GLOBE Eclipse App
- c) Neighborhoods at Risk–Headwaters Patty Hernandez–LuAnn can contact
- d) Air Quality phenomenon from MyNASA data —Angie
- e) StoryMaps have seven, will have eight; What are StoryMaps? or a few quick ones on the different topics; Eclipse phenomenon (maybe by April 8) Current: 1) Air Quality, 2) Sea Ice Extent and the Earth System, 3) Phytoplankton Distribution, 4) Urban Heat Islands, 5) Hurricanes as Heat Engines, 6) Ocean Circulation Patterns, 7) Volcanic Eruptions
- f) Pat Reiff is willing to do one on the eclipse
- g) Becky willing to do an Out2Lunch
- h) Elena Wildfire tool perhaps later in the 2023
- i) Environmental Sustainability Index —Carla
- j) Leticia Perez, West Ed, Data work —(Shelley suggesting)
- k) Later in the spring; the seismic module with Concord

## **October 20, 2022**

Present: Margaret Mooney, Bob Downs, Eric Walters, Becky Reid, Pat Reiff, Megan Carter, Elena Yulaeva

### **Agenda:**

- 15) Potential proposal on Solar Eclipse (in response to Dear Colleague letter for high school and undergraduate students)
- a) 2017: workshop on solar eclipse, FUNding Friday Award for one of the teachers to take more students to see it.
  - b) Proposal should focus on underrepresented groups.
- 16) Margaret’s Vision
- a) Fund teachers to come for multiple nights
    - i) Could be 20 from out of state
    - ii) Or 15 from out of state and 5 local (some kind of division)

- b) 2 workshops - one in-person and one online (maybe a follow-up, but more likely a separate standalone)
  - c) Pat: often travels to do workshops for teachers
  - d) Becky: teach something specifically to deliver to the students regarding the ellipse. Margaret: take temperature measurements (temp drops during ellipse, can be several degrees up to 10 maybe). Pat: GLOBE app for this, could automatically become part of a global database. Also, could monitor animal behavior? Winds? Flowers? UV beads that turn colors in the daylight. Device for changing sunlight into sound so that vision impaired can hear the change. Ellipse viewers (or glasses), need to order now!
  - e) Margaret: keep brainstorming, have grants available to teachers to do what they want with their kids?
- 17) Eric: Would be great if a teacher could leave with a kit of what they need to teach their students. Marymount willing to try to figure something out related to translating sunlight into sound.
- 18) Pat: give map, pack of 25 eclipse glasses (updated to 40)
- 19) Megan: orient around data lifecycle somehow? More than just data collection, data analysis. Becky: have students plot, learn how to use Excel well.
- 20) Carla: How about creating/adapting some online data-based activities to use in the monthly webinar sessions?
- 21) For reference: previous NSF-funded projects (NSF likes it when you can leverage something they previous funded, even if it is just the data or products):
- i) [https://www.nsf.gov/awardsearch/showAward?AWD\\_ID=1564535](https://www.nsf.gov/awardsearch/showAward?AWD_ID=1564535)
  - ii) [https://www.nsf.gov/awardsearch/showAward?AWD\\_ID=1247226&HistoricalAwards=false](https://www.nsf.gov/awardsearch/showAward?AWD_ID=1247226&HistoricalAwards=false)
  - iii) [https://www.nsf.gov/awardsearch/showAward?AWD\\_ID=1638685&HistoricalAwards=false](https://www.nsf.gov/awardsearch/showAward?AWD_ID=1638685&HistoricalAwards=false)
- 22) GLOBE app: <https://observer.globe.gov/do-globe-observer/eclipse> Carla: Let's use this!!
- 23) Add into the budget an in-person workshop in Texas - April 8, 2024 lunch (Saturday before Easter) - 10-3??**
- 24) Maybe think about Chocktaw Nation in Oklahoma, possibly NASA will, where totality will also be.

**September 15, 2022**

**Present: Carla McAuliffe, Pat Reiff, Megan Carter, Becky Reid, Dave Jones**

#### **Agenda:**

- 1) Gateway PD
  - a) Add more details here
- 2) Session at Winter meeting
  - a) How about a listening session: what resources do you need; how can we help you?
- 3) Disaster Life Cycle Cluster - identifying data

- a) Want to engage communities when wildfires occur looking for ways to engage science communities with scientific data; want to put together an approach to make it inclusive;

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**August 18, 2022**

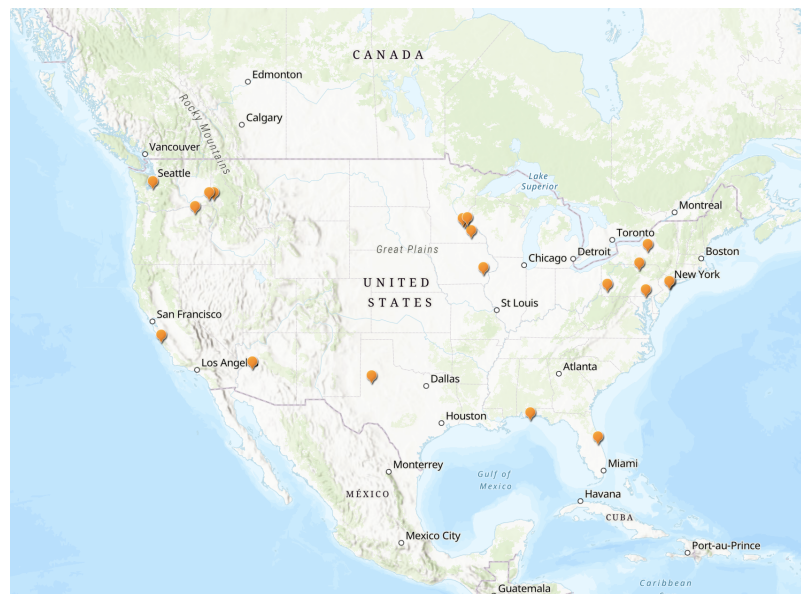
**Present: Carla McAuliffe, Margaret Mooney, Shelley Olds, Allison Mills, Megan Carter, Kalo Halsem, Bob Downs**

**Agenda:**

- 4) PD that we want to receive
  - a) Keep a front facing portal/website simple
  - b) Brief pitch of why joining the email is valuable and how to join the listserv
  - c) Could use the ESIP Ed 4 teachers as a way to survey teachers on what they want
- 5) Shall we meet 1 hour earlier or later for our meeting?
- 6) Discussing the Summer Workshop
  - Successful summer workshop for teachers!
  - 23 teachers confirmed participation; 4 were in-person (17%) and 19 online (83%); one teacher joined from Turkey and one from Egypt!
  - Check out these stellar teachers via their introductions:  
[https://docs.google.com/presentation/d/1y1Yv0WCr52Hyw5qD6wcVn\\_YHd6SB4hp9aBasJjbV1dM/edit?usp=sharing](https://docs.google.com/presentation/d/1y1Yv0WCr52Hyw5qD6wcVn_YHd6SB4hp9aBasJjbV1dM/edit?usp=sharing)
  - We reached teachers that we had not reached before via our Out2Lunch 15 minute webinars or other venues.
  - Looking at the data: Of the 4 in-person teachers, one was a previous FUNDing Friday teacher, one was from Pittsburgh School District (PSD), one was a kindergarten teacher accompany her data scientist husband to the meeting, and one was a teacher traveling across country on vacation and made this a stop on her vacation plans. While it is true that PSD does not formally offer Earth science in high school and only offers two units in middle school, who we reached in-person this year has implications for marketing next year.
  - For next year, we need to think about our marketing strategy. Promoting the use of Earth science data in classrooms is a K-12 science goal, not just limited to Earth science “certified” teachers.
  - Looking at the data: 4 in-person and 19 online. We surveyed teachers and the reasons they attended online included avoiding COVID-19 but more discussed the convenience of participating online (especially with family obligations during the summer) and the economics (for teachers) of not having to pay for travel to get somewhere.

- Looking at the data: Four facilitators is the right amount for a workshop of this type. We are committed to continuing with hybrid workshops in the future. Facilitators can choose to attend in-person and have their way paid or facilitate remotely and receive a stipend. In addition to our 23 teachers, We did have some other ESIP folks that showed up and participated in-person at the meeting.
- Map of our reach: Our reach was coast to coast from Salinas, California to Staten Island, New York and north to south from Plymouth, Minnesota to Pensacola Florida and further to Puerto Rico. One teacher from Egypt and one teacher from Turkey also participated.

○



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- Carla's non-profit (Teaching About Planet Earth) provided a meeting OWL 3 to help connect in-person and online participants.
- One of the in-person teachers was a previous FUNding Friday recipient. Of the other 3 in-person attendees, two received FUNding Friday awards. One did not.
- Online participants were not eligible for FUNding Friday, which would be great to revisit for next year.

**May 19, 2022**

**Present: Carla McAuliffe, Elena Yulaeva, Megan Carter, Margaret Mooney, Susan Shingledecker, Bob Downs**

**Agenda:**

1) Education Committee Budget – Carla provides a brief overview

- a) 2022 Budget Request – Total Request – \$19,000 (Could go down to \$13,000)  
<https://docs.google.com/spreadsheets/d/1sguysMHqnsDI4Ac2dYss0XcKp7JLhDJ0/edit#gid=1937972573>  
Teacher Workshop – \$17,000 (again including \$5,000 for teacher implementation stipends) (Could go down to \$11,000)
- b) 2021 Budget Request – Total Request – \$14,000  
[https://docs.google.com/spreadsheets/d/1jfnYIHHo3wSLKYYUEqNiuD\\_LE2NtZ83K/edit#gid=416328080](https://docs.google.com/spreadsheets/d/1jfnYIHHo3wSLKYYUEqNiuD_LE2NtZ83K/edit#gid=416328080)  
Teacher Workshop – \$10,000 (introduced \$5,000 for teacher stipends)
- c) 2020 Budget Request – Total Request – \$21,600  
<https://docs.google.com/spreadsheets/d/1ssT5aepUE4I5n78aTRA8aZ7943XUIN2e/edit#gid=416328080>  
Teacher Workshop – \$9,245
- d) 2019 Budget Request – Total Request – \$19,992.79  
<https://docs.google.com/spreadsheets/d/1BS8XnG8CSG1FdFm94ogElvay1vQwpKSV/edit#gid=1778813782>  
Teacher Workshop – \$8,159
- e) Transparency of Funding  
Everyone has the opportunity to participate in these endeavors. Those who are interested do so. We have not had the situation where more folks have wanted to do something than we have funding for.

2) Summer Workshop Planning

a) Tentative Schedule:

**Wed 1:30 to 5:00 PM Times Tentative**

Icebreaker

Shelley Olds (60 min) -- Deformation & Velocity vector

Carla McAuliffe (45 min) -- Flooding Hazards Module with Flood Explorer tool

LuAnn Dahlman (45 min) -- Climate Explorer

*Jonathan Griffin (45 min) -- CIRIES Wildfire module?? Has not been contacted yet*

Carla McAuliffe (15 min) -- Out2Lunch Resources & School Year Implementation Grants

Bob Downs (20 Min) --

b) **Thursday 1:30 to 5:00 PM Times Tentative**

Becky Reid (XX min) --

Tamara Ledley (60 min) -- EnRoads

Douglas Rao (45 min?) --

Margaret Mooney (45 min) --

*Break : 3:30 to 4 PM*

*Bruce Moravchik (XX min) -- NOAA Sea Rise Tool?? Has not been contacted yet*

Carla McAuliffe (15 min) -- Out2Lunch Resources & School Year Implementation Grants

FUNDing Friday teachers (10 min) ---

Closing Survey (15 min) --

**FUNDing Friday Poster creation (6:30 PM)**

Flyer/ Application Text

The content is Earth science spanning climate to environmental to earthquakes, tsunamis and early warning.

\* Food is provided for in-person participants.. Also they have the opportunity to apply and compete for a Funding Friday project (up to \$3000)

\* Online folks would participate without the hassle of travel.

Both have an opportunity to apply for implementation grants (up to \$500)

**April 21, 2022**

**Present: Carla McAuliffe, Elena Yulaeva, LuAnn Dahlman, Margaret Mooney, Trinity Foreman, Allison Mills, Megan Carter**

**Agenda:**

3) Out2Lunch: Please consider presenting or sending new contacts

- a) April 27 – USGS Water Science School: Educational resources about water for all ages, Charlotte Riggs, Physical Scientist, USGS

- b) May 4 – Elena? Title and 2 sentence description  
**WIFIRE or Why Fires? Hot New Fire Science Tools for Wildfire Prediction, Management & Prevention**  
**Yvonne Marie Andres ([GlobalSchoolNet.org](https://www.GLOBALSCHOOLNET.org)) and Elena Yulaeva (Community Commons)**  
**WIFIRE or Why Fires? Hot New Fire Science Tools for Wildfire Prediction, Management & Prevention**

Wildfires are a threat to lives,

homes, health, businesses, ecosystems, and climates. WIFIRE is a NSF-funded project that uses the power of data science and artificial intelligence to better monitor, understand and manage wildfires. We will introduce participants to the WIFIRE education program created for educators, youth, and their families to learn about the connection between wildfire patterns as impacted by climate factors (e.g. drought, wind, floods) and land management, actions that can be taken to incorporate resilient management strategies, and introduce related career paths. As a hands-on experience, we will introduce Firemap ( [firemap.sdsc.edu](https://firemap.sdsc.edu) ), one of the WIFIRE applications that enables students to explore wildfires in their local communities and analyze factors contributing to fire propagation such as winds, vegetation, humidity, and topography.

- c)  
d) May 18 – Trinity Foreman  
4) Final submitted budget: [2021FY ESIP Education budget proposal.xlsx](#)  
5) Earth Science Week Calendar Activity update  
6) Teacher Workshop proposal

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### **March 17, 2002**

**Present: Carla McAuliffe, Becky Reid, Megan Carter, Trinity Foreman, Susan Shingledecker, Rusty Low, Elena Yulaeva, Bob Downs,**

### **Agenda:**

- 1) Out2Lunch: Please consider presenting or sending new contacts
  - a) February 23 – ESIP Education Implementation Grants and Resources, Carla McAuliffe, TERC, ESIP Education Committee Chair
  - b) March 2: - The MEL Project: Promoting Students’ Scientific Thinking When Confronted with Controversial Topics in Earth Science, Carla McAuliffe, TERC, ESIP Education Committee Chair
  - c) March 9: – Getting a feel for your climate future, LuAnn Dahlman, NOAA Climate Program Office
  - d) March 16: Took a break

- e) April 6: Cassie tentative; Tiire challenge looking for Mosquitoes
- f) April 13th: Flooding Module, Chris Lore, Concord Consortium
- g) April 20th: Trinity Confirmed
- h) Holding April 27 for USGS Water School
- i) May 4 - Elena
- j) Bruce Moravchik NOAA will present the Sea Level rise tool in May or summer
- k) Allison Mills, ESIP's communications manager is now helping to promote.

2) Budget considerations

- a) We spent all of last year's budget (have 3 remaining teacher implementation stipends) Info will be coming from Traci
- b) We have the Earth Science Week American Geosciences Institute (AGI) calendar page and the summer [Call for Sessions JUL22](#) Teacher Workshop that will take place before the new fiscal year starts (fiscal year ends September 30th) Request a new budget

3) Teacher Summer Workshop - July 18-22 in Pittsburgh, PA (Overall Theme: **Data for All People: From Data Generation to Data Use and Understanding**)

- a) If in person, ask them to bring laptops or a device; what is the Internet capability of the hotel?
- b) [Call for sessions](#) - due April 29th.
- c) Who from this group is planning to attend in person? Becky Reid; Margaret Mooney, not in person, Carla McAuliffe willing to facilitate virtual components, including Zoom recording (some ability to connect remotely) We have provided a stipend to help facilitate in the past and to offset travel costs (We could do this as part of PD for us (last year we allocated \$1000 for PD for us)
- d) Do we want to put out a call to ESIP-all and then reach out to individuals? Rusty and team (IGES tentative); did not charge teachers in past; Get two free registration comps for first time presenters; Elena's team; dashboard for simulating wildfire data/risks....may be able to present this summer; Climate resilience Toolkit presenter...maybe LuAnn; Bob Downs willing to present but not sure if he would be virtual or in person.
- e) What do you think of "Data for Use and Sustainability" as the theme (e.g. tools, data, and resources for water availability, water quality, air quality,

climate change, land/ food availability, Earth observing satellite data and tools to support sustaining Earth resources)?

f) Thoughts from Megan on other ESIP Partners to possibly engage - American Geosciences Institute + CLEAN Network

4) Can we launch our new Education Website this spring. Let's aim for May. Check to find what Megan set up for us.

a) All program committees are on one page.

b) Allison will make an intermediate page that will bridge to our google site/wiki pages

5) Carla needs to send, Doodle poll to PD participants.

**February 17, 2002**

**Present: Carla McAuliffe, Elena Yulaeva**

**Agenda:**

Congratulations to Bob Downs! - **President's Award Honors Service**

2) Out2Lunch has restarted! Please consider presenting. New ideas for tools came from the summer workshop.

a) Margaret Mooney presented on February 2.



b) Trinity Foreman presented February 9.



- c) Peder Nelson presented yesterday.
- d) February 23 – ESIP Education Implementation Grants and Resources, Carla McAuliffe, TERC, ESIP Education Committee Chair
- e) March 2: Carla McAuliffe
- f) March 9: LuAnn
- g) March 16: Took a break
- h) April tentative for Elena
- i) Holding April 27 for USGS Water School
- j) Allison Mills, ESIP's communications manager is now helping to promote.

Teacher Summer Workshop (Overall Theme: Data for all people from generation to use and understanding (If in person, ask them to bring laptops or a device) Internet capability of hotel?

Call for sessions mid to late March.

Do we want to put out a call to ESIP-all and then reach out to individuals (

- k) What do you think of “Data for Use and Sustainability” as the theme (e.g. tools, data, and resources for water availability, water quality, air quality, climate change, land/ food availability, Earth observing satellite data and tools to support sustaining Earth resources)?

Can we launch our new Education Website this spring. Let's aim for May. Check to find what Megan set up for us.

All program committees are on one page. Allison will make an intermediate page.

Carla needs to send, Doodle poll PD.

Earth Science Week Calendar Page — one activity. Do want to put a flyer or something into the kit? 9,000 Is there a way to do a virtual flyer? Is this counter to sustainability?

Budget???? Not sure when yet.

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### **January 13, 2022**

**Present: Carla McAuliffe, Elena Yulaeva, Margaret Mooney, Megan Carter, Patricia Reiff, LuAnn Dahlman**

#### **Agenda:**

- 7) Implementation grants: We have three left. Let's open a "new" opportunity to implement by May 13.
- 8) Out to Lunch: Four lined up so far and saving an April date for USGS
  - a) February 2: Margaret Mooney: Countdown to Launch of GOES-T
  - b) February 9: Trinity Foreman
  - c) February 16: Peder Nelson
  - d) February 23: Carla McAuliffe
  - e) March 2: Elena (still tentative)
  - f) March 9: LuAnn
  - g) March 16: ?????
  - h) Holding April 27 for USGS Water School
  - i) Margaret in the fall of 2022 Virtual Science Fair
  - j) Suggestion: GLOBE project for Eclipse sunlight and temperature levels
- 9) Possible future Teacher workshop: Summer of 2023: theme of an Eclipse
- 10) Giving a PD presentation and invite the Program Committee (February meeting with goal of May presentation) Carla to send Doodle Poll
- 11) Call for Summer Sessions begins in March and due May sometime
- 12) Call for Winter Sessions begins in October sometime
- 13) Website: Goal for development is this spring

### **December 16, 2021 Meeting**

**Present: Carla McAuliffe, Megan Carter, Trinity Foreman, LuAnn Dahlman, Margaret Mooney**

- 14) Implementation grants: We are awarding seven implementation grants.. We can also open a "new" opportunity to implement by another deadline.
- 15) Insights thought from PD

### **November 18, 2021 Meeting**

**Present: Carla McAuliffe, Becky Reid, Megan Carter,**

**Shelley Olds, Margaret Mooney, Elena Yulaeva, and LuAnn Dahlman were unable to attend.**

### **Agenda**

16) Implementation grants: Thanksgiving deadline is to keep people focused. If they truly need more time, we don't have any reason to deny it. We can also open a "new" opportunity to implement by another deadline.

17) Insights thought from PD

18) Other visualization resources from LuAnn:

- a) On the visualizations front, however, I do have an excellent resource to suggest. I recently tuned in to a really inspiring data viz webinar from the folks at Alda - Kavli Science Communication. The first speaker, Heather Lynch, talked about how scientists could improve their figures. The second speaker, Daisy Chung, shared a bunch of inspiration. Lots of fun ideas and tips.
- b) The session is available at <https://www.youtube.com/watch?v=Gn6ElfiQQug>
- c) Starting at 8:50 will get you to Heather's section.
- d) Daisy starts at about 26 minutes in.
- e) A great list of resources is available below the video in the description:
- f) [https://docs.google.com/document/d/1dneLTgp75WnVmU4VkaOArnfJakn1n2\\_X4Xzpey-VO-w/edit#](https://docs.google.com/document/d/1dneLTgp75WnVmU4VkaOArnfJakn1n2_X4Xzpey-VO-w/edit#)

19) Restarting Out2Lunch

- a) LuAnn Dahlman ---Climate Explorer
- b) Elena has a speaker

### **August 19, 2021 Meeting**

**Present: Carla McAuliffe, LuAnn Dahlman, Rusty Low, Elena Yulaeva, Howard Burrows, Shelley Olds**

### **Agenda**

20) Teacher Workshop:

[https://docs.google.com/document/d/1FGACsWSHPTXS8nEAXaTjpHB\\_-201xkfYsJDuoKAY9Rc/edit](https://docs.google.com/document/d/1FGACsWSHPTXS8nEAXaTjpHB_-201xkfYsJDuoKAY9Rc/edit)

21)

22) Budget is Approved!!!. Final submitted budget: [2021FY ESIP Education budget proposal.xlsx](#)

Professional development funds need to be spent by the end of the fiscal year:

September(?) Tentative Theme: Big Data

We selected training from this source:

<https://informationisbeautiful.net/workshops/>

We're looking specifically at the October 21 event. For \$75 per person. We need to get a cohort of folks who can commit to attending the 6.5 hour live event. We may also be able to afford some books. By next Thursday, Carla will compile a list of folks who can commit to participating and selecting books and such.

23) Out to Lunch: 15-minute demos recorded. Tools or datasets. Can include links to curriculum or worksheets. Focus is getting teachers to use data.

- a) Ed Robuck, AGI, Earth Science Week 2021 theme is Water
- b) Dorian Jamey (sp?) may update her demo
- c) Peder Nelson is doing some GLOBE Observer landcover and water work (suggested by Rusty)
- d) Ocean related data from NCEI? Trinity will check.

24) Implementation grants: Thanksgiving deadline is to keep people focused. If they truly need more time, we don't have any reason to deny it. We can also open a "new" opportunity to implement by another deadline.

25) Planning for Summer Workshop

## **July 15, 2021 Meeting**

**Present: Carla McAuliffe, Shelley Olds, Tamara Ledley, Elena Yulaeva**

### **Agenda**

- 26) Budget is Approved!!!. Final submitted budget: [2021FY ESIP Education budget proposal.xlsx](#) Professional development funds need to be spent by the end of the fiscal year: September(?) Tentative Theme: Big Data
- 27) Planning for Summer Workshop

## **June 17, 2021 Meeting**

**Present: Carla McAuliffe, Margaret Mooney, Megan Carter, Bob Downs**

### **Agenda**

- 28) Budget is Approved!!!. Final submitted budget: [2021FY ESIP Education budget proposal.xlsx](#) Professional development funds need to be spent by the end of the fiscal year: September(?) Tentative Theme: Big Data
- 29) Update from Program Committee meeting: They are promoting our summer workshop.

30) Advertising Summer Teacher Workshop -

<https://docs.google.com/document/d/1Q0b8q0UZJksGn2RrwqlbtKWrEhm4bdsuldUEotoWwHuc/edit?usp=sharing> Thanks Margaret!!

31) Megan also tweeted Margaret's flyer.

- a) #STEM Educators: join the ESIP Education community "Exploring Earth Wind and Fire via Earth Science Data" on Zoom July 20 & 21. Registration is free, but limited to 50 max. Gain skills via real-time data exploration of critical weather & climate phenomena. <https://2021esipsummermeeting.sched.com/event/jMNS>

TAG: @NOAAANCElclimate, @climateinteract, @UWCIMSS, @NASAEarth, @UNAVCO, @USGS, @NOAAeducation

Shall we tweet again?

32) Summer Workshop Planning

- a) Margaret, Becky, Carla will facilitate....Elena?  
b) Do you mind if ESIP members (beyond our 50) drop into sessions?  
c) Complimentary speaker registrations  
d) Dry run with presenters?  
e) Google Doc with links to materials?

33) ESIP is now a Liaison Organization of AGI (there is an opportunity to support Earth Science Week) Will ESIP contribute? Question Carla asked of Susan.

34) Final Earth Science Week Calendar activity - going out to 9,000 teachers

**JULY 2022**

LEARNING ACTIVITY:

## Make a Watershed Model

GRADES 6–12

**MATERIALS**  
Per group

- Large aluminum roasting pan
- 6–10 pages of newspaper
- Masking tape
- A sheet cut from white plastic trash bag slightly larger than the pan
- Spray bottle
- Blue food coloring
- Paper towels
- 2 colors of permanent markers
- Blocks or a notebook to lift one end of the tray
- Computer with internet access

**PROCEDURE**

- 1 Crumple several pieces of newspaper into balls and rolls of different sizes and shapes. Place them into your roasting pan. Use tape to keep them in place.
- 2 Smooth out any wrinkles in your plastic sheet.
- 3 Raise one end of the pan on blocks or a notebook, then cover the entire pan and its contents with the plastic. Gently press the plastic down around the crumpled paper balls. Leave the excess plastic around the outside of the box.
- 4 The plastic cover represents Earth's surface. The lumps represent mountains and hills, and the areas between them represent valleys. Use your imagination to visualize your model as a portion of Earth's surface.
- 5 Fill your spray bottle with water and add a few drops of blue food coloring for visibility. Spray just enough rain to see how the water interacts with your model landscape.
- 6 Look for these features in your model:
  - Streams or rivers—linear flows of water running downhill.
  - Ponds or lakes—areas where water pools in low areas.
  - Drainage divides—imaginary lines where the "rain" goes to one side or another.
- 7 When you think you can predict the locations of streams and drainage divides on a model landscape, wipe your plastic dry and set up the model again. Draw your predictions for the locations of streams and divides directly on the plastic.
- 8 Pair up with another lab group and test each groups' predictions about the location of their streams and divides.
- 9 Discuss the results and your ideas for improving the model.
- 10 Examine the pattern of the flow of water in your watershed using a map ([https://water.usgs.gov/wsc/map\\_index.html](https://water.usgs.gov/wsc/map_index.html)). Discuss how well the model represents reality for the concept of watersheds and drainage divides.

**NGSS CONNECTIONS**

- Science and Engineering Practices—Developing and Using Models
- Disciplinary Core Ideas—Earth's Systems
- Cross Cutting Concepts—Cause and Effect

**Source:** TERC.  
Adapted with permission by Earth Science Information Partners.

**TERC**  
**ESIP**

**Materials for the learning activity.**

**Step 1 and step 5 of the activity.**  
Photos courtesy of TERC. Map: USGS.

This lab is adapted from a larger collection provided by EarthLabs. View a teacher guide and access to other labs and modules (<https://serc.carleton.edu/earthlabs/drought/2.html>). The activity comes from TERC, an Earth Science Information Partners (ESIP) Type III partner, and was adapted by the ESIP Education Committee which promotes the use of Earth science data in education and offers "Out2Lunch" webinars (<https://wiki.esipfed.org/Education/Out2Lunch>) highlighting Earth science tools and resources for educators.

35) Out to Lunch Webinar Series: <https://wiki.esipfed.org/Education/Out2Lunch>

- a) Rusty Low, Wednesday, June 23
  - b) Carla McAuliffe, Wednesday, June 30
- 36) Inviting folks to present at Out2Lunch [https://bit.ly/Present\\_ESIP\\_Out2Lunch\\_Webinar](https://bit.ly/Present_ESIP_Out2Lunch_Webinar)
- 37) Other????

## May 20, 2021 Meeting

**Present: Becky Reid, Rusty Low, Elena Yulaeva, LuAnn Dahlman, Carla McAuliffe, Megan Carter Robert Downs**

## Agenda

- 38) Budget Update: Still not finalized. We have been assured that funding is available for the summer workshop. Final submitted budget: [2021FY ESIP Education budget proposal.xlsx](#)

No update on approval, but no obvious hang-ups either. Megan estimates we could hear something by next week. Professional development funds need to be spent by September(?)

- 39) Update from Program Committee meeting

Meeting last week. Main takeaways: We're looking at marketing strategies for ESIP. Program committee is gearing up for the summer workshop. Contracted with a consultant to better understand ESIP's needs. What tools do folks like? Need? Etc. May lead to hiring someone to promote collaboration tools.

Carla contributed the comment that the Education group is looking for a friendlier public-facing website for educators. (Recalled Becky's Wordpress sites) We currently have several useful resources to share, but they are not well represented for educators.

Megan mentioned that folks expressed some hate (yes, hate!) for the wiki. It started as an internal platform, but hasn't evolved sufficiently.

- 40) Advertising the summer workshop

### ***Exploring Earth, Wind, & Fire via Earth Science Data***

**Tuesday, July 20 & Wednesday, July 21, 1 PM to 5 PM Eastern**

- a) Do we post a draft agenda?
- b) We need to point teachers to the ESIP registration site
- c) Key points: First 50 teachers receive free registration to ESIP summer meeting; 10 teachers who successfully document implementing something from the workshop can earn \$500 stipends

Sample email from last year: "The Earth Science Information Partners (ESIP) summer meeting is virtual. It includes a Teachers Workshop (afternoons of July 14th and 15th) featuring tools and data from NOAA, NASA, a Climate Solutions Simulator, and other climate and energy educational resources. Registration is free and gives the participants access to the entire ESIP meeting.

Please forward the attached flyer to your networks of STEM Educators in grades 6-14. Let me know if you have any questions."

Carla would like to post a single page with a link to register and the draft agenda. Scheduled description will serve as the place. Becky will add a button to this section with a Registration button.

Speakers can be added.

Carla is looking for an example email from last year. Carla will invite Margaret to update last year's flyer.

Elena encouraged us to consider how we might reach out to lower-SEC schools.

Carla described some of the networks she's been posting to.

41) Out2Lunch survey update

[https://docs.google.com/forms/d/e/1FAIpQLSfJMspeZ\\_8UphRwMt--l\\_K\\_YjGw9sQsr5ZAszmMfyLogKpBTg/viewform](https://docs.google.com/forms/d/e/1FAIpQLSfJMspeZ_8UphRwMt--l_K_YjGw9sQsr5ZAszmMfyLogKpBTg/viewform)

Carla McAuliffe will monitor input and send certificates.

42) Please continue to invite people to present at Out2Lunch (Joseph Kerski, Mark Francek, Rusty Low?)

[https://bit.ly/Present\\_ESIP\\_Out2Lunch\\_Webinar](https://bit.ly/Present_ESIP_Out2Lunch_Webinar)

Still time for people to present in May and June. Then we can use these for the summer workshop. During one of the sessions, they'll get the opportunity to implement something from one of the speakers or from the Out 2 Lunch series.

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**April 15, 2021 Meeting**

**Present: Carla, Megan, Becky, LuAnn**

**Absent: Margaret (having a birthday party!)**

## Agenda

- 43) Teacher Workshop proposal for the summer meeting was submitted by Margaret!!!  
[TeacherWorkshopSessionProposal-2021](#)
- 44) AGI Earth Science Week Calendar Activity submitted! [Make a Watershed Model ESIP Calendar Activity.docx](#)
- 45) Budget Update: Still not finalized. We have been assured that funding is available for the summer workshop. Final submitted budget: [2021FY ESIP Education budget proposal.xlsx](#)
- 46) Out2Lunch Certificates: From Shelley, "Hey - While getting ready to do a webinar on the GeoCode seismic hazards module, the question of clock hours came up ... I think this would be easy to implement (and model off of NAGT). If a participant completes the survey and requests it, they can be mailed a certificate of completion - I can send on the survey and the certificate once our webinar is done. For the Out to Lunch - we ask them to list which 4 (assuming 15 min per) they watched/ attended -Apparently in some states, even a certificate, even without the CEU official component, is usable for their clock hour requirements." Survey Question Suggestions?  
Put a link to the two? forms on the Out2Lunch page.
  - a) First Name
  - b) Last Name
  - c) Email
  - d) Which webinar did you attend? (drop down menu of topics)
  - e) What would it take to implement this in your classroom?
  - f) Do you think you'll use it?
  - g) Zip code
  - h) Second form: Letting us know they attended at least four? (drop down menu of topics)
- 47) Website MockUp: [ESIP-ED-mockup web page.pptx](#) Main ESIP website uses WordPress. What are the website features we want? Becky showed some of her WordPress pages. Can we set up a page with "posts" of standing pages?

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## March 18, 2021 Meeting

**Present: Becky Reid, Catherine Cramer, Shelley Olds, LuAnn Dahlman, Carla, Margaret Mooney, Becky Reid, Rusty Low, Megan Carter**

## Agenda

- 1) Budget has been returned and needs to be finalized by **March 23**. Here is what we submitted:

[https://docs.google.com/spreadsheets/d/1jfnYIHHo3wSLKYYUEqNiuD\\_LE2NtZ83K/edit#gid=2038231347](https://docs.google.com/spreadsheets/d/1jfnYIHHo3wSLKYYUEqNiuD_LE2NtZ83K/edit#gid=2038231347)

Carla: We've been invited to participate in Earth Science Week. Mid October, send out kits to 9K folks. Paper-based packet with a calendar, posters, bookmarks, etc. We can participate in the calendar for free.

We could also produce 9000 one-pagers or postcards, but we'd need to have them shipped to AGI by June 1.

Budget issues: Timing is very difficult to get planning done and projects funded and money spent by Sept 30. Potential for a gap: leaders are elected at Winter meetings and budgets are due in Fall.

Megan reports that the finance committee is considering solutions.

Currently, whatever we put in for right now must still be spent by September 2021.

- 2) Earth Science Week: theme, "**Water Today and for the Future.**" An opportunity to be in the Earth Science Week kits from AGI (American Geosciences Institute) -- one that involves the budget and one that does not involve the budget-- (e.g. Flyers/one pagers or postcards (9,000 needed/cost) plus activity calendar page opportunity/no charge)
  - a) Last year's activity calendar (**due by the end of the month**)
    - i) [https://www.earthsciweek.org/sites/default/files/Calendar/ESW\\_calendar\\_20-21\\_MedRes\\_070220.pdf](https://www.earthsciweek.org/sites/default/files/Calendar/ESW_calendar_20-21_MedRes_070220.pdf)
    - ii) Ideas:
      - (1) Dataset activity;  
<https://www.epa.gov/waterdata/how-s-my-waterway>
      - (2)
      - (3) Partner Activity?
      - (4) Water Cycle game (like the carbon cycle)
  - b) Flyer Shelley put together for AGU or could be postcard advertising Out2Lunch (**ship 9,000 copies by June 1**)
    - i) <https://drive.google.com/drive/folders/1FyTGYdvm8HR43rWPoPHLV22t8gcihPnt>

3) Thinking "out-of-the-box" budget requests (e.g. training for a new education initiative) Is there a new project for which we could use some training? Keep in mind that all funds must be spent by September 30, 2021.

Discussion: Paper products seem likely to stay within the packet. The calendar seems like a good opportunity. We don't have a ready-to-go activity on water. We could do a postcard on the Out-to-lunch series.

LuAnn suggests considering this as an activity:

<https://serc.carleton.edu/earthlabs/drought/2.html>

Build a physical model of a watershed. Simple, but at least some fun.

4) Mocking up website interface....thanks! Should we take off budget?

a) Mock-up from Margaret:

<https://docs.google.com/presentation/d/1CKJqo8hBOmAQ2Z9AfmhAGx8vMBZZWTPZ/edit#slide=id.p1>

b) An example from Becky: <https://anzaguides.org/>

c) Others?

5) Recommending Speakers for Leading Innovation in Earth Science Data Frontiers Webinar Series

6) Out2Lunch,: We have our listserv! Will restart for Spring in 2 weeks. Current messaging is to invite folks to revisit past presentations. Please continue to invite people to present at Out2Lunch

[https://bit.ly/Present\\_ESIP\\_Out2Lunch\\_Webinar](https://bit.ly/Present_ESIP_Out2Lunch_Webinar)

7) Planning for the summer workshop (We should put funds for stipends in the current budget but list with a separate budget source as in 2020). Margaret suggested we meet again on April 8 to move this forward.

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## February 18, 2021 Meeting

**Present:** Margaret Mooney, Becky Reid, Shelley Olds, LuAnn Dahlman, Elena Yulaeva, Megan Carter, Carla McAuliffe

## Agenda

Virtual Summer workshop for Teachers? Let's start planning this! Devote time at next meeting.

Any action items pending on proposed ESIP strategic themes 2021-2026?

(<https://drive.google.com/file/d/1Wna7LztHWdrgiAFA9QTjVot1HaRt7duk/view?usp=sharing>) No action needed. Themes have been approved.

Budget is coming back to us.....do we want to make changes?

**Action Item:** Find out if we need to ask for funds for summer workshop in this education budget. Ask Susan. It was a regular line item of ESIP budget that we did not have to ask for in our education budget. Becky to work with Margaret and Ed committee to send email to Susan.

### *Past Budget Folder*

<https://drive.google.com/drive/u/0/folders/1nvVimqSqZ7OX0KqQjyLmui12jZpKuijG>

### 2020 BUDGET

<https://docs.google.com/spreadsheets/d/1ssT5aepUE4I5n78aTRA8aZ7943XUIN2e/edit#gid=416328080>

Budget is in alignment with my proposed goals, but do we want to have a pet project, like with drones or coding?

Possible goals for the ESIP Education Committee (Additions or Deletions?)

- Increasing the visibility and accessibility of products of past ESIP Education Committee efforts, making them widely available through a more user-friendly website (that is editable? accessible for team; impression of a more-permanent presence than the Wiki) Word press or Google suite) Example
- <https://sites.google.com/tothecloudedu.com/earthscienceallaround/home>
- Promoting high-quality, rigorous and responsive Earth science instructional materials (from ESIP partners and non-profits) that can be employed in virtual learning settings
- Continuing to promote the use of Earth science data in K-12 teaching and learning through our “Out-to-Lunch” webinar series and other professional development offerings

Inviting folks to present at Out2Lunch

[https://bit.ly/Present\\_ESIP\\_Out2Lunch\\_Webinar](https://bit.ly/Present_ESIP_Out2Lunch_Webinar)

Out2Lunch

<https://wiki.esipfed.org/Education/Out2Lunch>

Setting Up a Listserv for advertising?

Possible Names:

- ESIP-ED4Teachers
- ESIP-ED-resources-opportunities
- ESIP-ED-webinars-workshops
- ESIP-ED-resources

Data

- 156 registrants across 6 webinars (includes us)
- 105 Unique registrants since November (excluding us)
- Are there any metrics for the Out2Lunch page itself?
- YouTube hits range from 50 on average to 200 to a high of 6,752 views

To get a certificate, would we like to see evidence of implementing from one of the four webinars attended (e.g. proof of attendance 4 by completing 4 super short post webinar surveys, and implementing at least one?)

How many teachers received stipends from the summer workshop? 6

Do we want to record meetings?

Other?

---

## **December 17, 2020 Meeting**

### **Agenda**

Review of proposed ESIP strategic themes 2021-2026

We have stipends to award to teachers! - Becky wrote to them with paperwork on getting their stipends

How can we share what they have done?

Invite to present at an OTL

Include contributions in an ESIP website blog post - who will write?

Should we award a certificate of participation to OTL attendees? Sure!

A certificate after 4 participations seems reasonable. Will Carla track attendance, or will attendees be asked to apply and show proof of attendance?

Whatever procedure works best for Carla

---

## **November 19, 2020 Meeting**

### **Agenda**

#### **Notes from the Program Committee:**

The budget approval process is still on pause.

Program committee (President, Vice-President, and Committee Chairs) will be more active in budget review and approval.

Asking Committees (4) and Clusters (affiliated with partners for specific goals - about 30) to participate in Renewal Process

"Affiliation" of ESIP members needs to be better defined

Two year term for ESIP Leadership (Committees, Clusters) is being considered

## Out2Lunch

Created a folder in

36 registered; 24 participated

<https://wiki.esipfed.org/Education/Out2Lunch>

O2L Registration Form Template:

[https://docs.google.com/forms/d/e/1FAIpQLSciYKS86ceP67XxXqxFG1aqd\\_yj\\_FtVpLCN9j8bNPQ6HivwKg/viewform](https://docs.google.com/forms/d/e/1FAIpQLSciYKS86ceP67XxXqxFG1aqd_yj_FtVpLCN9j8bNPQ6HivwKg/viewform)

## Summer Teacher Workshop Followup

- Encourage folks submit their use of ESIP Education Resources (implementation stipend):

[https://docs.google.com/forms/d/1qj\\_N1dV8zd2KWukByLTRfYVbxtQmgkr3Oy-8cVCH3AY/edit#responses](https://docs.google.com/forms/d/1qj_N1dV8zd2KWukByLTRfYVbxtQmgkr3Oy-8cVCH3AY/edit#responses)

~~~~

We are no longer using QiCoChat.

Please join the GoToMeeting conference from your computer, tablet or smartphone.

<https://global.gotomeeting.com/join/819936645>

You can also dial in using your phone.

United States: [+1 \(571\) 317-3122](tel:+15713173122)

Access Code: 819-936-645

First time w/ GoToMeeting? Let's do a quick system check::

<https://link.gotomeeting.com/system-check>

ESIP Education Wiki: <http://wiki.esipfed.org/index.php/Education>

The Shared Drive is called ESIP [Education Committee](#): If you want to add this shared drive to your own Google drive, click the link, sign in to Google, and request access. Or just email us!

October 15, 2020 Meeting

Agenda

- **Notes from the Program Committee**

- New ESIP Staff, Patty Allen
- Budget proposals and approvals are on hold
- Budget proposal deadlines may be changed to coincide with new chairs' terms
- FiCom wants committees to collaborate more, especially on strategic goals and budgets
 - Example: Did the Education committee ask staff and other committees/clusters if website design could be accomplished with existing staff?
- Discussion on the purpose of the Program Committee. Communication or collaboration?
- Request from Susan Shingledecker to submit WM Keynote speaker possibilities: Leading innovation in Earth Science Data Frontier
 - <https://2021esipwintermeeting.sched.com/> information about the meeting
 - Astronauts? Pioneers in a field?
- Summer Teacher projects:
 - Shelley: Send a nudge
 - Due Nov 15
 - \$500! Do something achievable
- Fellows - we didn't apply for one but if someone is interested in Ed
- Full list of all teachers who have interacted with ESIP Education (I am leary of posting a link to these lists on our meeting notes page [which has a public link] due to the slight chance that someone nefarious scrapes and follows links to the lists)
 - Summer Meeting list (Megan sent to Margaret)
 - Winter Meeting 2019
 - Out to Lunch participants
 - Summer Ed Workshop spreadsheet
 - Where should we post this ever growing list? ESIP ED's Google drive?

September 17, 2020 Meeting

Agenda

- **Budget! (It's already late)**
 - What do we want to accomplish in 2021?
 - Establish a Professional Learning Community?
 - Support Science on a Sphere Mobile in libraries?
 - Produce YouTube Videos of ESIP Resources?
 - Working Session @ Winter Meeting?
 - Support Libraries? <https://www.climatecrew.org/>
 - **Out To Lunch? Carla willing to lead and organize**
 - Hurricane Explorer
<http://hurricane.concord.org/branch/master/index.html>

- Wildfire Explorer <https://wildfire.concord.org/>
 - Helping teachers find & use data on maps
 - Earth exploration toolbox follow on
 - School boards?
 - **“Repackaging stuff that’s been wonderful” - Website - Carla**
 - Here’s the form responses where we can see when folks submit their use of ESIP Education Resources:
https://docs.google.com/forms/d/1qj_N1dV8zd2KWukByLTRfYVbxtQmgkr3Oy-8cVCH3AY/edit#responses
 -
 - What is our focus?
 - Data Science Education?
 - Climate Education?
 - Earth Science Education?
 - **Enabling teachers to use online tools in virtual and hybrid teaching**
- **2021 Education Committee Chair**
 - Susan Shingledecker (incoming E.D.) is asking for our best leaders to step forward and serve as committee chairs. She is not afraid to admit that she will need help.
 - Erin (outgoing E.D.) says that the Summer Meeting may still be held in person, remember that travel to summer and winter meetings are provided if the meeting is held in person.
 - Nominating Carla McAuliffe
- ESIP is recruiting Fellows for 2021
 - Encourage grad. students/post docs. you may know to [apply by Oct 9.](#)
 - If we apply for a fellow to serve on the Education Committee, we should emphasize:
 - Scientific communication skills (Public education)
 - Art skills (e.g. Make a Story Map, Create a zine, <https://scied.ucar.edu/zikazine>)
 - Story map featuring Earth Science Data Science careers
 - Someone who wants to develop GIS skills
- Virtual Winter Meeting *official* dates: January 26-28 (*Updated*)
 - Theme: Leading Innovation in Earth Science Data Frontiers

August 20, 2020 Meeting

Agenda

- **Summer Meeting Review**

- Submit resources to FigShare?
- Margaret will send an email to the teachers about implementation grant

- **Brainstorming for ESIP-ed projects**

- *Past themes: Drones, Coding, Using Data with a Climate change emphasis*
- *Data literacy - inspire, data sources, meta-data; data behind project Draw Down; Enroads*
- *Data science - introductory - analytics, visualization, big data?*
- *Collaborative tools - that supports Earth Science*
- *Libraries - Science on a Sphere App may be useful*
- *Fees for Regional/State science teacher conferences - presenting on behalf of the ESIP education committee*
 - *Name of event, Registration fee,*
- *Climate teacher professional learning community*

-

- **2021 Budget**

- Annual budget: 8 to 12 K rough estimate; may be smaller this year
 - We don't need to add ESIP fees and travel expenses
- See [Budget 2019-2020](#): Please do not edit this document!
 - https://docs.google.com/spreadsheets/d/1DCZbr3ynYpsDqmXLeTJxTgfjb_xw6IBZtz010765GrT8/edit?usp=sharing
- A message from the Finance committee:

ESIP annually solicits budget requests from its committees to support community activities. The current request for budgets is for Fiscal Year 2021. You can find a budget template, a budget justification template, and an overview at the following link >

https://wiki.esipfed.org/Federation_Documents#Budget_Requests

*Note that "[Committee and Working Group Budget Policy](#)," is [here](#). All budget requests should be clearly linked to ESIP's [Mission and Vision](#) and the *draft* 2021-2026 strategic themes found [here](#). If you have feedback about the draft strategic themes, you may provide your input through [this brief \(<10 min\) survey](#).*

Some things to consider:

- **Budget requests can be for project deliverables, based on an approved fee for services and not on an hourly rate.**
- Budget discussions within committees and working groups should be clearly announced before the relevant meetings, through committee/working group listservs, and to esip-all.
- Process for selections of any sub-awards should be described (e.g., competed within the group).

- *Due to the uncertainty concerning the pandemic, please do not include any travel in your budget. After we know more, we can deal with this.*

*If you have any questions about the budget request process, please feel free to ask me, Rebecca, at (treasurer@esipfed.org). Budget requests should be submitted to Ficom directly via email cc'd here by **September 11th, 2020**.*

- **How to meet going forward?**
 - **Use quicochat in the future**
-

June 18 meeting

For emails to the registrants, please cbcc: all leaders

(resent this to ESIPED) For interactive one pager: Attached is an example from Margaret Mooney. Please include this information:

- Name of the resource/tool
- Catchy lead-in + a photo/image (suggested)
- Describe of the tool - use brief phrases and bullets
- Describe a brief activity (5 - 10 min) for what you want the teachers to do. For example, from Margaret's one-pager:
 - Visit <http://cimss.ssec.wisc.edu/education/goesr/vsf.html>, review the guidelines and requirements, and come up with TWO IDEAS that your students might pursue to participate in the 2021 VSF.
 - Look at xyz dataset - find data near your school/home/museum; what could your students investigate with this data?

Directions to get into QiQoChat room

Once you click first link... then click on the June 18 meeting
Now you are in the Qiqo chat space.

- Before you get the zoom - you get a page with “green button” sign in RSV or Participate” or Participate as Guest”
- Then click on the green Participate Now button
- Then click on “Join Video for Lecture Hall
-

Done - Elena Yulaeva is not getting emails , please bcc her eyulaeva@gmail.com on all communications with teachers and other emails

June 15, 2020

Description of how we will run the workshop and in what platform(s)

- Teachers need to be able to watch presenters
- Teachers need to be able to do things on their own computers
- Teachers need to be able to interact with each other

Need to schedule a workshop walk through for 4 presenters

Done - Email sent to Megan A. & current wording has been placed on Sched

Roadmap document - clickable agenda:

ESIP Education Summer 2020 Workshop Roadmap

Tuesday July 7/14 (Times are in Eastern Time)

[Link to our workshop Zoom room](#)

1:00 Introduction & ESIP Overview - Becky Reid

-- Give your name and describe your teaching situation in the Zoom chat

-- Answer the mentimeter question

1:20 **Using Climate Explorer to Envision Future Conditions**

LuAnn Dahlman

[Climate Explorer Tool](#)

2:20 Twenty-minute BioBreak

2:40 [En-ROADs Climate Interactive](#) - Tamara Ledley

4:15 Day 1 Homework: Exploration of ESIP Community tools & resources

- [Slide deck of resource descriptions and challenges](#)
- [Resource Exploration Form](#) (for submitting homework)

4:45-ish 'close-out' the day, homework help?

[Day 1 - July 14 - Feedback Form](#)

Wednesday 7/15

1:00 Welcome back, recap and discussion

1:30 [My NASA Data](#) - Elizabeth Joyner

2:30 Break

3:00 [SOS Mobile Explorer](#) (Science on a Sphere) - Patrick Rowley

4:00 Break-out room discussions

4:30 Report back and next steps

- Discussion: an implementation stipend is available.
- [Document your Implementation](#) Use this form to document how you used an ESIP activity in your teaching/educational setting. The first 15 qualified responses will receive \$500.

[Day 2 Feedback Form](#)

Need the one-page (8.5 x 11) from each ESIP Community Member : Exploration of ESIP Community tools & resources - send it to LuAnn

Exploration of ESIP Community tools & resources: If you are interested in sharing an online resource/tool, please create a one-page (8.5 x 11) document (PDF preferred) and send to LuAnn Dahlman by **Monday, June 22**. Attached is one example from Margaret Mooney . Please include this information:

- **Name of the resource/tool**
- **Catchy lead-in** + a photo/image (suggested)
- **Describe of the tool** - use brief phrases and bullets
- **Describe a brief activity (5 - 10 min) for what you want the teachers to do**, Examples::
 - Visit <http://cimss.ssec.wisc.edu/education/goesr/vsf.html>, review the guidelines and requirements, and come up with TWO IDEAS that your students might pursue to participate in the 2021 VSF.

- Look at **xyz** dataset - find data near your school/home/museum; what could your students investigate with this data?
- **Explain ESIP Resources Activity**
 - **How to submit a highlights slide**
 - **What Educators will do with the resource highlights (assignment)**
 - Global Forest Link : <http://globalforestlink.com/>
 - NASA SEDAC (we highlight specific datasets)
 - GOES 16/17 Satellite Data
 - UNAVCO Velocity Viewer
 - Earth Labs?
 - Haz Pop or SEDAC
 - Global Systems Science - www.globalsystemsscience.org
 - CLEAN - be specific
 - Professional Learning Group - Tamara

One slide from each participating ESIP stakeholder with instructions on how to explore.

Running the Resources slide deck session

- Each slide has a 'hook' and simple task
 - before workshop, we have google docs set up, one for each room with thumbnail of each tool (w/ links to the tools) (two columns in a table?)
- Logistics of running this session:
 - Randomly place group into breakout rooms (one for each resource) explorations of one of the resources or individually as "homework"
 - round robin 15 minutes , each 'room' has 2 'slides'/tools, discuss ideas then choose another room for another room
 - Participants post through implementation ideas about 2 or 3 through Google Form at end/that evening
 - v. brief explanation of the idea; of those choose 1 to describe a bit more (sequence?)

May 21, 2020,
1pm PT / 1pm AZ / 2pm MT / 3pm CT / 4pm ET

Participants:

Becky Reid
Tamara Ledley
Shelley Olds
Alan Gould
Carla McAuliffe
James Acker
Patricia Reiff
Ruth Duerr
Kalo Haslem
Erin Robinson
Megan Carter
Elena Yulaeva
Bob Downs
Ben C

Agenda

Explore qigochat: Link to ESIP-Ed Meeting Test run:

<https://qigochat.com/breakout/0/avEVvrEjMuTltEdqOzqzLIOWD>

Reviewing/ updating workshop Agenda

--- example of another education qigochat:

<https://qigochat.com/e/MsWEtzDWpfdlaQCLFTjZvdzeu/ziZSCCPBmuXyfZLLRMsrlhVC>

Planetarium shows! Weds 6 pm CT. Join us! <http://space.rice.edu/nssec/shows.html>

Posted online in sched:

[Day 1: Tuesday July 14 1:00pm - 5:00pm](#)

[Day 2: Wednesday July 15: 1:00pm - 5:00pm](#)

The Earth Science Information Partners (ESIP) Education Committee will be conducting a virtual workshop on the afternoons of July 14th and 15th featuring sessions: NOAA Climate Explorer, En-ROADS Climate Interactive, My NASA Data, and NOAA's SOS Explorer Mobile plus additional resources from other ESIP Community members: NASA SEDAC, Haz Pop, GOES 16/17 Satellite Data, UNAVCO Velocity Viewer, Global Forest Link, Global Systems Science, CLEAN, Professional Learning Group.

Registration is FREE and includes: Access to the entire ESIP Summer meeting (July 14-24); and Access to \$500 Implementation Grants (Fifteen available for Fall 2020)

[Flyer that has been sent out:](#)

Calling all STEM Educators Grades 6-14! The Earth Science Information Partners (ESIP) Education Committee will be conducting a virtual workshop on the afternoons of July 14th and 15th

featuring tools from NOAA and NASA, a Climate Change Solutions Simulator plus additional resources from other ESIP members.

Registration is FREE and includes:

- Access to the entire ESIP Summer meeting (July 14-24)
- Access to \$500 Implementation Grants (Fifteen available for Fall 2020)

TOPICS

Tuesday July 14 – 1pm to 5pm EDT

NOAA Climate Explorer & En-ROADS Climate Interactive

Wednesday July 15 – 1pm to 5pm EDT

My NASA Data & NOAA's SOS Explorer Mobile

SPACE IS LIMITED to the FIRST 50 APPLICANTS!

More information and registration link at

<https://2020esipsummermeeting.sched.com/info>

Review Virtual Summer Workshop Schedule=

DRAFT Agenda, Virtual Teacher Workshop as of May 21, 2020 revisions made in Ed-Comm mtng

Tuesday July 7/14 (Times are in Eastern Time)

1:00 Introduction & ESIP Overview

1:20 [Climate Explorer](#) - LuAnn Dahlman

2:30 Break

3:00 [En-ROADs Climate Interactive](#) - Tamara Ledley

4:15 Exploration of ESIP Community tools & resources -

- Global Forest Link : <http://globalforestlink.com/>
- NASA SEDAC (we highlight specific datasets)
- GOES 16/17 Satellite Data
- UNAVCO Velocity Viewer
- Earth Labs?
- Haz Pop or SEDAC
- Global Systems Science - www.globalsystemsscience.org
- CLEAN - be specific
- Professional Learning Group - Tamara

4:45-ish 'close-out' the day, homework help?

Wednesday 7/15

1:00 Welcome back, recap and discussion

1:30 [My NASA Data](#) - Elizabeth Joyner

2:30 Break

3:00 [SOS Mobile Explorer](#) (Science on a Sphere) - Patrick Rowley

- 4:00 Break-out room discussions
 - 4:30 Report back and next steps
 - discussion about classroom implementation stipend
 - w/ evidence
-

May 12 Planning Meeting

DRAFT Agenda, Virtual Teacher Workshop:

Tuesday July 7/14 (Times are in Eastern Time)

- 1:00 Introduction & ESIP Overview
- 1:20 [Climate Explorer](#) - LuAnn Dahlman
- 2:30 Break
- 3:00 [En-ROADs Climate Interactive](#) - Tamara Ledley
- 4:00 Exploration of ESIP resources - One slide from each participating ESIP stakeholder with instructions on how to explore. Explorations will take place in breakout rooms or individually as "homework"
 - Global Forest Link : <http://globalforestlink.com/>
 - NASA SEDAC (we highlight specific datasets)
 - GOES 16/17 Satellite Data
 - UNAVCO Velocity Viewer
 - Earth Labs?
 - Haz Pop or SEDAC
 - Global Systems Science
 - CLEAN - be specific
 - Professional Learning Group - Tamara

Wednesday 7/15

- 1:00 Welcome back, recap and discussion
- 1:30 [My NASA Data](#) - Elizabeth Joyner
- 2:30 Break
- 3:00 [SOS Mobile Explorer](#) (Science on a Sphere) - Patrick Rowley
- 4:00 Break-out room discussions
- 4:30 Report back and next steps

To dos:

Shelley: One - Slide

LuAnn: make the feedback forms

Margaret: Write Patrick

Becky: Write Elizabeth, Tamara ; write Erin about reimbursement for NESTA memberships, Write Erin about budget rearrangement request

Access to \$500 Implementation Grants (Fifteen available for Fall 2020) = $15 * 500 = \$7500$

~~Workshop stipends to participants (Gift card) $100 * \$50 = \5000~~

~~Implementation grants = $25 * \$200 = \5000~~

Ideas, to receive the stipend

- **Is it possible to take 'attendance' for each session? To verify that they attended**
- **Complete the daily survey - rate / comments**
- **Complete summer 2020 summer esip workshop - summer homework - pre-implementation**
- **Tweet out ... ?**

Ideas: To receive implementation grant

- Evidence of implementation and feedback (use guide created for K. Haslem's work)

EER agenda / program for EER:

https://serc.carleton.edu/earth_rendezvous/2020/program/index.html

Wednesday SHARE-A-THON (1:30-2:45 PT / 4:30 pm ET)

May 4, 2020,

Stipends

Pulling from NOAA funds, travel funds,

Define: attending full workshop (two days , 4 hrs each)

DRAFT: Tuesday July 7/14 Times are in Eastern Time

1:00 intro & ESIP overview

1:20 Climate Explorer - LuAnn

2:30 Break

3:00 En-ROADs Climate Interactive - Tamara

4:00 Exploration of resources - 10 slide deck, one slide from ESIP stakeholder. (Getting started... instructions... cool links to explore the data (or data sets))
(exploration to take place in breakout rooms or individually)

- Global Forest Link : <http://globalforestlink.com/>
- NASA SEDAC (we highlight specific datasets)
- GOES 16/17 Satellite Data
- UNAVCO Velocity Viewer
- Earth Labs?
- Haz Pop or SEDAC
- Global Systems Science
- CLEAN - be specific
- Professional Learning Group - Tamara
-

5:00 pm Wrap-up

Wednesday 7/15

1:00 recap and discussion

1:30 My NASA Data - Elizabeth

2:30 Break

3:00

3:30 SOS Explorer - Patrick

4:00 Break-out room discussions

Advertise for the implementation grant - deadline by midnight your timezone - Nov 15

4:30 Report back and next steps (? will we be able to offer implementation stipends?)

Promote awareness of ESIP educational products

Flash talks - 3 min ad - one slide that can you learn from this...

Explore 2 - 3 resources

Comment: what you like about it ; suggestions for improvement

Breakouts

Why they would use it

April 23, 2020 - One week later than usual

Becky Reid, Tamara Ledley, Shelley Olds, Elena Yulaeva, Agbeli Ameko Keith Maull, Margaret Mooney, Carla McAuliffe, Bob Downs, Catherine Cramer

Summer Workshop Prep:

Theme: Putting Data to Work for Earth Science Education – a virtual workshop for educators

DRAFT description for the Flyer:

"The ESIP Education Committee is inviting remote participation in an on-line workshop featuring Earth Science tools and activities from NOAA, NASA and the USGS on the afternoons of Wednesday July 15th and Thursday July 16th. Educators will learn about and engage with: NOAA Climate Explorer, USGS Shake Alert, NOAA SOS Explorer, NASA SEDAC, My NASA DATA, GOES 16/17 Weather Satellites, and a Climate Solutions session featuring the En-ROADS simulator.

ESIP is offering two-part stipends for participation – every teacher who completes both of the sessions will receive a \$100 check. Educators who employ and document one of the tools in their classrooms in the fall of 2020 are eligible for a 2nd \$100 check. This feedback will be used to improve the resource. Thanks to NOAA we can support 30 educators with these stipends. "

Zoom - break out rooms - small groups

-- thoughts on improving, using, obstacles

-- ed person in each breakout room

-- assign the first person / someone steps up leader, time keeper, note taking (google docs that mirror the agenda - bookmarks to each breakout room at top)

- establish norms

Draft for an online synchronized workshop... AGENDA & available presenters & time:

"Putting Data to Work for Earth Science Education" 1pm to 5pm EDT

Best Practices for virtual meetings

Facilitators watching the chat for interlopers

Password protect Zoom sessions

Interacting with EER

How to work with the EER schedule? Carla can help

Stipends?

Expecting a large group of teachers to register, based on Carla's experience

How to offer stipends?

50 \$100 stipends?

Stipends only for use and documentation?

Proposed Schedule (updating 4/23)

Wednesday: 1pm - 5pm EDT Climate Theme

Opening - 15 min

NOAA Climate Explorer: LuAnn Dahlman (75 minutes)

En-Roads: Tamara Ledley: (75 min)

Wrap Up - Sharing how to implement- 15 minutes

Potential: NOAA SOS Explorer: Patrick Rowley (30 minutes)

Day 2: 1pm - 5pm EDT

Opening: 15 min

Teacher sharing of assignment

NASA

My NASA DATA: Elizabeth Joyner (60 minutes remote only)

NASA SEDAC: Bob Downs (30 Minutes)

<break and share your resources> 30 min

USGS ShakeAlert, Shelley Olds (45 minutes)(could do a joint seismo-GPS session that is tool oriented - takes 30 - 45 min)

GOES 16/17 Weather Satellites: Margaret Mooney (45 minutes)

ArcGIS Online: Carla?/ Willing to facilitate other sessions

NOAA SOS Explorer: Patrick Rowley (30 minutes)

Sharing how to implement

Wrap up: 15 min

Consider attending Meetings committee meeting next Monday, 1:00 EDT

To do:

Summer flyer

Second check: form for teachers to 'complete'

Coaching for teaching through zoom - interactive - inclusive -

Shelley & Bob - co-create SEDAC scavenger hunt - specific data sets - look at their regions in breakout rooms - come back and discuss

March 19, 2020

Participants: Becky Reid, Keith Maull, Elena Yulaeva, Shelley, Ruth Duerr, Alan Gould, Agbeli Ameko, Bob Downs, Margaret Mooney

Theme: Putting Data to Work: Building Public-Private Partnerships to Increase Resilience & Enhance the Socioeconomic Value of Data

Teacher workshop July 16, 2020 - planning for virtual/remote event, with a possible in-person component

DRAFT AGENDA & available presenters & time:

"Putting Data to Work for Earth Science Education"

NOAA Climate Explorer: LuAnn Dahlman (45 or 90 minutes)

USGS Shake Alert, Shelley Olds (45 or 90 minutes)

NOAA SOS Explorer: Patrick Rowley (45 or 90 minutes)

NASA SEDAC: Bob Downs (45 Minutes)

My NASA DATA: Elizabeth Joyner (45 minutes remote only)

GOES 16/17 Weather Satellites: Margaret Mooney (45 minutes)

Other potential presenters include Ruth Duerr, Keith Maull & Agbeli Ameko

Interest survey (wordsmith) -

- Google form
- With stipend for online and f2f
- Agenda - like previous year's flyers

-

If travel - in-person:

If no travel - online

Ruth Duerr: Data conservation workshop:

- Thinking about different models for running this ~½ day workshop
- https://docs.google.com/document/d/1ZFyL_hE_UqtMOTuzo_hxhf7mKJ95ET_XQW_nhW0ZrSI/edit
- Probably wise to plan for on-line with the possibility that there may be an in person component
- Tie to Agbeli Ameko's instrumentation session
- Megan would like it modularized if possible

February 20, 2020

Participants: Carla McAuliffe, Elena Yulaeva, Shelley Olds, Becky Reid, Bob Downs, Kalo Haslem

Agenda

Winter meeting recap

Two teacher workshops, about 6 teachers; range of technology issues in the schools of the teachers; want to create a guide based on these constraints for anyone creating tools for educators (submitted to ESIP lab proposal)

Update on Jupyter Notebook from Shelley

Preview: Ben Galewsky is helping Shelley modernize our Jupyter Notebook activity so it can run on publicly available Jupyter platform called Binder.

Nothing to report... ok, I've noodled a little to set some boundaries.

Update on Kalo's PocketLab project: we are doing this lab experiment this week..

- Measuring humidity in air
<https://app.thepocketlab.com/lab-report/9abdf582-cdfe-43f3-a8f1-f46cd589f4c7?ro=1>
- and next week we are doing the collecting data outside and the ArcGIS story maps
- <https://storymaps.arcgis.com/stories/74cfe4d2b7a94611bc4b372fc6aca1b1>

The goal is to produce lesson plans for upper elementary through middle school. Lessons may also be appropriate for high school.

NSTA Conferences

National NSTA Boston April 2-5, 2020 (Three NESTA Share-a-Thons)

Area Conferences: (There are NESTA Share-a-Thons at each one)

Pittsburgh, Pennsylvania: October 29–31, 2020
New Orleans, Louisiana: November 19–21, 2020
Phoenix, Arizona: December 10–12, 2020

Chicago *National Conference*: April 8–11, 2021 (*Proposals due April 15, 2020*)

Area Conferences: (Proposals due January 15, 2021)

Portland, Oregon: October 28–30, 2021
National Harbor, Maryland: November 11–13, 2021
Los Angeles, California: December 9–11, 2021

Big data skillz

- Place the list of MOOC on GitHub? Link from ESIP education
- List of actual skills - is this being produced by NEREID?
- Teacher skillz?

Resources to consider

- Citizen science projects <http://studentsdiscover.org/>
- <http://globalforestlink.com>

Summer meeting teacher workshop ideas Vermont (July 13 to July 17 Vermont)

- Set up - bite size chunks from ESIP community members - resources available to teachers
- Possible Facilitators: Yes: Margaret, Shelley - possibly, (not Becky, Carla)
- 45 min - 50 min chunks?
- Recruitment - Becky to send email to Howard Burrows
- Date of the workshop: Thursday July 16 potentially? *Update from Becky: Megan thinks Thursday should be fine. We should mention Thursday when we submit to the Call for Sessions (coming out in the next few weeks)*
- MyNASADData (reach out to Elizabeth Joyner, Desiray Wilson)
- Global Forest Link
- Ag session w/ GIS ESRI ? - Shelley (Joseph Kerski)
- Bob Downs NASA SEDAC tools

January 16, 2020 - Meeting Cancelled

December 19, 2019

Participants:

Becky Reid

Catherine Cramer

Elena Yulaeva

Desiray Wilson
Samantha Sands
Megan Carter

Shelley (on a plane, so sorry)
LuAnn (in another meeting, not able to join the call)
Margaret Mooney (presenting at another meeting)
Kalo Haslem (teaching his middle schools class)

Agenda

ESIP Winter meeting

[Click here for list of teachers.](#)

Please have a look and edit as needed.

Can Megan check to see if they are registered?

What do teachers need to know? (Becky will send info and schedule for the day)

- Meeting Location & Directions-
- Parking (are we paying for parking if they drive in? How?)- Samantha investigating and will get back to Becky
- When should they arrive? - Becky, Margaret & Shelley
- Where to meet when they arrive - Becky, Margaret & Shelley
- Map with workshop locations - Samantha sent. Waiting for room location confirmation
- Eating lunch as a group - Becky, Margaret & Shelley
- Meeting afterwards for needs and next steps discussion - Becky, Margaret & Shelley
- How will stipend be paid? - Megan can check on that
- Do they need to prepare? Anything to read beforehand? - Catherine & Steve
- Encouraged to attend poster session - Becky, Margaret & Shelley
- Maybe share <https://www.esipfed.org/onepager> as general info about ESIP

What do we want to know about the teachers and/or their learners? (Becky sending a survey)
Background with data and earth science

This is the session happening in the Workshop room post workshop: <https://sched.co/Xrhf>

Pocketlab Air update from Kalo

- December 2019: The teacher who was going to use the Airs in a project this fall but Middle School teacher moved to Maine; they have onboarded a new teacher and Kalo will be working with her in January to spin up their project. (Collect air

quality data where students are dropped off/picked up in the morning as well as other locations)

- September 2019: Kalo tested the Airstream and "am in the process of working on using them and putting together some ideas." This map has a few interactive points with data and link to a google sheets data sheet
https://www.google.com/maps/d/u/2/edit?mid=1I9pGYH_WLeNdAD7a3TclYw7YR6eR8_wl&ll=35.09111749579688%2C-78.87423975000002&z=13
- story map draft:
<https://storymaps.arcgis.com/stories/74cfe4d2b7a94611bc4b372fc6aca1b1>

Introducing Elena Yulaeva

November 14, 2019

Participants:

Becky Reid
Margaret Mooney
James Acker
Keith Maull
LuAnn Dahlman
Samantha Sands
Desiray Wilson - MyNASADData
Katy Rico
Megan Carter
Shelley Olds
Agbeli Ameko
Catherine Cramer

Agenda

- From the Program Committee - Becky
 - Welcome to ESIP Meeting Director Samantha Sands. (She will be at AGU. If you are going, look for her and say hello.
 - Winter Meeting Schedule is online with new graphic:
<https://2020esipwintermeeting.sched.com/>
 - Breakout Schedule to be posted next week
 - Community Fellows have been chosen, appointments will be announced soon.
- Report from Planet Stewards Workshop at CIMSS - LuAnn and/or Margaret
- AGU on the horizon.

- Shelley to represent ESIPed-Committee - GIFT Share-a-thon & Poster - Data help desk
 - ESIP Ed Poster: Friday, 13 December 2019; 13:40 - 18:00 PM [ED53F-0903 - Fostering Computational Skills in Secondary Education Earth Sciences through Jupyter Notebooks](#)
 - (my research) Wednesday, 11 December 2019 13:40 - 18:00 PM Poster - [PA33F-1150 - How are They Getting Ready? Resident Experiences in Earthquake and Tsunami Preparedness along Coastal Oregon](#)
 -
- Megan Carter - Data Help Desk (Exhibit Hall Booth #1329)
- Catherin Cramer - has poster & talk (outcomes of NEREID workshop)
 - Tuesday, 10 December 2019 AM Poster - [ED21D-1063 Network for Earth-space Research, Education and Innovation with Data \(NEREID\): Collaboration for Earth-Space Data Science Education and Practice](#)
 - Wednesday, 11 December 2019; 11:35 - 11:50; Talk - [IN32A-06 - Network for Earth-space Research, Education and Innovation with Data \(NEREID\): Building Convergence and Capacity Across Earth, Space, and Data Sciences](#)
- Margaret Mooney - 2 posters & a lightning talk
 - Tuesday, 10 December 2019:12:00 - 12:08 Lightning Talk! [Mindful climate action \(Invited\)](#)
 - Wednesday, 11 December 2019 08:00 - 12:20 AM Poster: [ED31C-0976 - Results from the Inaugural SSEC Equity Tech Camp: engaging underrepresented High School students in technology and computer programming](#)
 - Wednesday, 11 December 2019; 13:40 - 18:00 [Poster: GC33F-1441 - Mindful Climate Action: Weaving climate change education into mindfulness meditation for personal and planetary health](#)
- Shelley - Ping ESIP-ALL ; send the handout to ESIP-Ed
- Winter Meeting Plans - All
 - Educator recruitment...
 - Wednesday breakout sessions are 90 minutes starting at 11:00, 2:00 and 4:00 (we don't know our specific allotted times yet)
 - Jim Acker recommends Trena Ferrell at Goddard (Jim will share contact info)
 - trena.m.ferrell@nasa.gov, 301-286-7114.
 - **Could also contact Eric Brown de Colstoun, eric.c.browndecolsto@nasa.gov, does GLOBE-related work.**
 - **Though a bit distant, I'd also recommend <https://www.globe.gov/web/marile.colonrobles> (met her at the NASA Citizen Science workshop this summer). marile.colonrobles@nasa.gov.**
 -

- Next meeting Thursday, December 19 (returning to third Thursday)

October 17, 2019

Participants:

Megan Carter
Becky Reid
James Acker
Elizabeth Joyner
Nancy Hoelbelheinrich
Robert Downs
Shelley Olds
Becky Reid
Erin Robinson
Margaret Mooney
Agbeli Ameko
Catherine Cramer

LuAnn sends her regrets. She'll be at a NOAA event in Silver Spring during the call.

Agenda

- News from Program Committee
 - Budget has been approved! See link below.
 - Budget update—Approved! [Click here to view](#)
 - Summer Meeting in Burlington, VT
 - Have contact in Burlington--- may be able to help us with contacts for the summer workshop
- AGU
 - GIFT workshop?
 - Are sessions chosen? Contact Carla?
 - Share-a-thon - share our coding project; advertising the summer workshop; Advertise out to lunches;
 - ESIP will have a Data fair and data help desk - share our resources; volunteer booth time ; has 'workshop' space in booth area
 - AGU Poster update
 - **Abstract ID:** 631602
 - **Abstract Title:** Fostering Computational Skills in Secondary Education Earth Sciences through Jupyter Notebooks
 - **Final Paper Number*: ED53F-0903**

- **Presentation Type:** Poster
 - **Session Date and Time:** Friday, 13 December 2019; 13:40 - 18:00
 - **Session Number and Title:** ED53F: Linking Education and Research with Jupyter II Posters
 - **Location:** Moscone South, Poster Hall
 - Folder for AGU abstract and poster
<https://drive.google.com/drive/folders/1daWEVc2qWhKq29xwvgHiKkk-P-xdRxe0>
- ESIP Winter sessions due Oct 18
 - Accelerating convergence of earth and space data in teaching and learning through participatory design. [Link to session proposal](#) from NEREID - Catherine Cramer
 - Tools: online; software;
 - Making connection with local educators and getting input
 - Note: could someone move this folder on the drive be moved under the Workshops, sessions, meetings folder?
 - Teachers to contact
 - John Leck
 - Donnette Dais - ERJ to reach out after receives the flyer from Margaret
 - Patrick Rowley- James Richmond Center
<https://www.ccboe.com/sciencecenter/staff/>
 - E. Joyner's contribution, per Trena Ferrell's (GSFC) recommendation:
 - Reid Temple Christian Academy ..Dr. Donnette Dais.
<https://www.reidtempleacademy.com/>
 - Dr. Donnette Dais <ddais@reidtempleacademy.com>
 - 1-2 teachers to attend one day of the ESIP meeting
 - Supported to pay substituted for \$150
 - Long term relationship at the schools (adopt a school)
 - Support the same school
 - Margaret to write up a blurb for teachers and for them to their administrators
 - Attend Catherine's working session to develop tools for teachers
 - Teachers provide input
- NEREID workshop - Nov 21 - 22; Greenbanks Observatory
 - Catherine Cramer will send more info
- (potential) Collaboration with ESIP Lab project :
 - Weather station development & deployment as a data science & earth science learning tool, Jupyter notebook - how the data we collect can help decision making, engineering design.
 - Project summary - [Community Open Data and Experimental Mesonet \(CODE-M\)](#) | Agbeli Ameko, NCAR

- Interest in becoming directly involved in committee: Keith Maull & Catherine Cramer
- Session collaboration with Catherine Cramer. [Accelerating convergence of earth and space data in teaching and learning through participatory design.](#) [Click Here](#)
- Looking ahead ..



Presentation by Agbeli Ameko:

CONCLUSIONS

- **Hardware**

- Undergraduates (and graduates) can jump in and start building new sensors and experimenting with novel ways to re-purpose sensors for new and interesting measurements.
- Work with UCAR SciEd to create Teaching Box and classroom activities that meet **Next Generation Science Standards (NGSS)**

- **Software**

- We are already making strides towards fully available open source software on Github
- New code to talk to CHORDS using the lighter weight non-HTTP protocol commonly used in IoT called MQTT
- there are so many software innovations yet to be created - we just need to get the community involved!

- **Data**

- NCAR DASH repository and create, Jupyter notebooks for analysis tools DOI (<https://doi.org/10.6084/m9.figshare.7707518.v2>)
- Engage community on data literacy and other computational thinking and learning materials

NCAR
UCAR

Computational Information Systems Laboratory

They want help with user testing of the stations, building NGSS lesson plans and activities, distribution to educators.

September 19, 2019

Participants:

Becky Reid
Elizabeth Joyner
Margaret Mooney
LuAnn Dahlman
Megan Carter
Katy Rico

News from the Program Committee:

Meetings committee is spinning up - first meeting 9/30

Still no definite Summer Meeting location - but will be somewhere in the Northeast

Asheville, NC? Week of July 6th or 27th?

Ed Committee is hoping for the week of the 27th

AGU

Call out for [Ignite@AGU talks](#) Hosted at Planet Labs Headquarters

Present at GIFT Workshop? Shelley as the Scientist? Becky with block coding? Becky will talk to Shelley about this

Climate Explorer for GIFT - LuAnn may find a scientist partner and present

Call for Community Fellows - due 10/7

What can we ask of a fellow? What can we do to enhance their growth?

Inventory & document education offerings throughout ESIP

NGSS - Phenomenon

Preservice Teacher? Elizabeth may have some contacts. Can we bring in a different type of fellow? Current teacher?

Margaret will begin our application, Becky will submit

VSTA Meeting in Vermont—Not attending

Winter Meeting - Planning 2 working sessions

- January 7th-9th in Bethesda, MD (Bethesda North Marriott). More info to be shared at <https://2020esipwintermeeting.sched.com/>.

Identifying a school in D.C. area (or learning organization!)

Elizabeth knows the Science Supervisor for Prince George County School Division in DC area. She will continue to try to make contact

Put out word to ESIP-All that we are looking for a school in DC

Ask Jim Acker at Goddard for possible contacts

Two sessions @ Winter Meeting

1. Work with teachers to determine needs, what we can offer as support, and next steps

2. Big Data - role of BD, Careers, why students should be data literate - lead to white paper for ourselves - strategic planning for ESIP Ed & data.

Cluster Plan Template (Could be useful for us as well)

http://wiki.esipfed.org/index.php/Cluster_Plan_Template

Sept 2019 Haslem... Got Pocket Lab Airs attempting to get momentum going with one of our Middle School science classes to create some lesson plans. I am working to create an interactive google map that we will put data on and possibly create ArcGIS story maps about the data points and a spreadsheet.... Link below: Please explore and let me know what you think

https://drive.google.com/open?id=1I9pGYH_WLeNdAD7a3TclYw7YR6eR8_wl&usp=sharing

August 15, 2019

Participants:

Becky Reid
Shelley Olds
Elizabeth Joyner
Patricia Reiff
Megan Carter

Budget Day!

- 1) Data tool - Out to Lunch -
 - a) Margaret not leading
 - b) Fall: Pat - Transit of Mercury... early November ... Before Nov 11 ;
 - i) Hold it Wed 6th
 - ii) Live webcam
 - iii) Crosses the middle of the Sun
 - iv) Next is 2032
 - c) Kalo - Spring - 20 minute
 - d) Becky to enlist
 - e) Rotate the moderating
 - f) We'll talk more next meeting
- 2) Learn to code initiative -
 - a) Continuing? Yes. to be planned in detail.
 - b) Goal for attending Vermont meeting is to give folks a taste of what they could do at the upcoming summer meeting
 - c) ESIH Hub is no longer available. We could use Google Collaboratory?
 - d) LuAnn has an idea for showing how to use coding to request info from ACIS (applied climate information service) to produce climate graphs. Environment may be less constrained.
 - e) Another idea: Take Jupyter code (python) and turn it into block coding. (Jupyter environment is pretty complex and has LOTS of dependencies.
 - f) We also have Scratch / Blockly examples from Becky. Coding to explore Earth / Data Science.
 - g) Shelley is working on a tephra/volcanic example through Concord Consortium.
 - h) Here's another tool that we could use: <https://codap.concord.org>
 - i) Budget:
 - i) Winter meeting working session (2 + chair) [2 sessions same \$\$]
 - ii) Instructional / curriculum to build the in-between steps to get teachers from scratch to Jupyter
 - (1) How this relates to ESS
 - (2) Pull in myNASAdata?

- (3) Use images (from GOES / myNASAdata) to linking to make these happen
 - iii) Make contact with a local science teacher (coordinator/supervisor) / after school leader to bring to the Winter Meeting (Substitute teacher funding + local travel)
 - j) Summer teacher workshop
 - i) This is part of the main ESIP budget - remind Erin that it goes into the main budget.
- 3) Share ESIP learning resources via workshops/ conferences
 - a) Adopt a school in DC area - underserved
 - i) Boy's & Girl's club, Girl's Inc;
 - ii) We bring geoscience data science and Jupyter notebook - to understand the world works ;
 - iii) Girl (/Boy) Scouts - STEM badges & journeys (longer more involved);
 - iv) How to get a contact in the DC - GIFT workshop teacher list from AGU 2018? ... Elizabeth has a contact - - Dr. Gofrey Rangasammy - science supervisor K-12 for Prince George's County School.
 - (1) Dr. Godfrey Rangasammy
 - (2) Science Supervisor, K-12
 - (3) godfreyr@pgcps.org
 - v) Goals / objectives before reaching out...
 - vi) **Budget: [stipend that covers substitutes] Or bring in a few teachers for observation and feedback for winter meeting**
 - b) Fall conferences - with focus on local conference will be close to next ESIP Summer Meeting
 - i) Budget: travel for 4
 - c) Present @ AGU - Budget: for 1 for 2 nights
 - d)
- 4) ESIP Ed PocketLab - we don't need to put it in the 2020 budget since its already allocated.

June 26, 2019 (Rescheduled from June 19)

3:00 pm Eastern
 2:00 pm Central
 1:00 pm Mountain

12:00 pm Pacific

Participants:

Becky Reid
Margaret Mooney
Megan Carter
Shelley Olds
Nancy Hoebelheinrich
Katy Rico
LuAnn Dahlman
James Acker

Agenda:

1. Nancy J. Hoebelheinrich - ESIP-hosted Data Management Training Clearinghouse (DMTC) (<http://dmtclearinghouse.esipfed.org>)
 - a. Wants to enhance the Clearinghouse by coming up with an assessment framework for the content in the clearinghouse
 - b. DMTC contains metadata for resources on research data management, tasks associated with the research and data life cycle, etc.
 - c. Includes videos, MOOCs, only metadata NOT resources themselves
 - d. In terms of assessment framework, interested in getting educators to join discussions of what kinds of assessments are feasible
 - i. Traditional learning objectives & outcome or something else??
 - ii. ESIP Summer Meeting Session: Assessment Frameworks and Dimensions for Educational & Training Resources, Wednesday July 17th at 10:30 am: See more info at <https://sched.co/PtPh>.
 - e. Budget Talk
2. Review 2019 budget (in Education Committee Team Drive)
 - a. Dream a bit about 2020: Brainstorm ideas, no decisions yet
 - i. Is NSTA regional worth the monetary investment?-- low numbers
 - ii. Thinking about summer meeting content/how to advertise to regional teachers
 1. Survey/solicit feedback from teachers that we reached out to this year to see why they did not sign up?
 - a. Was it the content? Registration? The announcement?
 2. Next meeting in Vermont
 3. Identify regional meeting where ESIP will be, advertise summer meeting to teachers there
 - a. October 24th meeting in Vermont; see below
 - iii. October 24th meeting in Vermont; applications due in July
 1. Margaret to take the lead
 2. Redirect other (NSTA regional) funds?

- iv. Adopt a school in the DC area to revisit each Winter Meeting?
 - 1. Tailored to teacher's needs
 - 2. Use as a testing ground for ESIP Ed content/materials
 - 3. Potential schools?
 - 4. Fund teachers to go to Goddard to work with Jim Acker/Giovanni?
 - 3. Teacher Workshop Update
 - a. 12 registrants currently
 - b. Spinning up Jupyter
 - c. Need questions from LuAnn/Shelley to put on the feedback forms/surveys
 - i. Do pre- and post-
 - 4. Next Meeting - Scheduled for July 18th - Skip or reschedule?
 - a. Skip but email about budget
-

May 16, 2019

Participants:

Becky Reid
Katy Rico
Margaret Mooney
Elizabeth Joyner
James Acker
LuAnn Dahlman
Robert Downs
Shelley Olds

Agenda:

- 1. New ESIP Ed Team Drive - usage, sharing, and ownership
 - a. Please read the "Read Me" file about sharing
 - b. How are "anonymous" comments possible?
 - c. Need to add more members to the Team Drive (only drive owner can add members)
- 2. Summer meeting Update
 - a. Participants
 - i. Continued efforts to disseminate info via various teacher networks
 - ii. NSTA - local?
 - iii. Computer teachers u
 - b. Hurricane Activity
 - i. Adding a few more examples in Jupyter
 - ii. Post in GitHub (from XX modified by LuAnn Dahlman for ESIP Education)
 - c. Speakers: See schedule and speakers here: <https://sched.co/O40g>

3. Gregory G. Leptoukh Online Giovanni Workshop (Jim Acker)
 - a. Series of four thematic webinars this summer
 - i. June 26, July 10, 17, 24th
 - b. Working with Giovanni
 - c. Jim will be speaking about visualizations with Giovanni
 - d. Will disseminate to ESIP Ed, teachers @ Summer Workshop
 - e. Webinars will also be recorded and available!
 4. Time to start thinking about FY2020 budget
 - a. Can add comments on FY2019 on Team Drive now
- Agenda item for next meeting-- discuss budget

April 18, 2019 @ 2pm ET

Participants:

Carla McAuliffe
LuAnn Dahlman
Becky Reid
Margaret Mooney
Shelley Olds
Patricia Reiff
Megan Carter

Agenda:

1. Summer Meeting Updates
 - a. Registration - Megan can update us as requested.
 - b. Outreach / Publicity
 - i. Reach out to area contacts - all
 - ii. Talk to Patrick Chandler about reaching out to his network
 - iii. Carla can send out "blurb" and small photo. Carla send flyer to Anne Egger. Shelley to post in NESTA Facebook group. Margaret will send to her.
 - iv. Pat Reiff will also send something out
 - c. Schedule
 - d. Leaders / Speakers
 - e. Activities - LuAnn, Keith & Sean have hurricane activity ready. Data "cleaned up"
 - i. Walk through with instructors soon (next couple of weeks) LuAnn will set date and set up meeting. May 2nd, 2pm Eastern

- f. The workshop is posted to Sched:
<https://2019esipsummermeeting.sched.com/event/O40g>
- 2. Update from NSTA - Shelley & Carla
 - a. St. Louis - Handed out flyers - one pager & Summer workshop flyer
 - b. St. Louis - NESTA Share-a-Thon (109 participants) & UNAVCO sessions (2)
 - c. NSTA 2019 regionals -- Becky
 - d. Boston 2020 - Coding session
 - e. Cost benefit - exposure is great! We have limited personnel capacity.
 - f. Shared booth for NSTA Boston: ESIP, NESTA, AGI, UCAR, CLEAN, (Rice U) Pat...
 - i. Luggage tags / neck wallet
 - ii.
- 3. Postcards - promotional
 - a. ESIP Collection? Web collection on NESTA
(https://serc.carleton.edu/nesta/resources/terc_es.html)
 - b. (https://serc.carleton.edu/nesta/resources/earth_science_week_2018.html)
 - c. Out to Lunch?
 - d. Earth Science Week Kit??? (June 1 deadline)
 - i. Place into budget 2020?
 - ii. Partner with CLEAN? Do they have a budget
- 4. Ad/Article for The Earth Scientist?
 - a. Out To Lunch promotional Ad/Article - Margaret will draft and send to Carla.

March 21, 2019 @ 2pm ET

Participants:

Becky Reid
Katy Rico
James Acker
Elizabeth Joyner
Kalo Haslem
LuAnn Dahlman
Megan Carter
Shelley Olds
Katie Boyd
Margaret Mooney
Patrick Chandler

Agenda:

NSTA 2020-Boston Deadline for session proposal submissions is April 15, 2019; would put ESIP-NESTA in the title; Kalo interested in leading workshop (Kalo, Shelley, LuAnn) - Shelley will put an abstracts (2) - Jupyter Notebooks + PocketLabs

Summer Meeting - Teacher Workshop is Wednesday July 17

TITLE? *Data in Action with Jupyter Notebooks and other Earth Science Tools*

****need to tell Teachers to bring a laptop or tablet to the session****

- + **Will include 2 plenary talks (9:30-10:30)**
 - + **Judy Tweed- Climate change through sound**
 - + **Jennifer Hennessey--Ocean health policy**
- + **Jupyter Notebooks**
 - **"Hurricane Activity"**
 - **Logistics will be set-up beforehand for teachers to be able to jump right into the activity**
 - **SuAVE**
- + **Potential ESIP Member presentations/activities**
 - CIESIN - Bob Downs (needs a hands-on component) Shelley to work w/ Bob
 - GOES 16/17 data activities - Margaret Mooney
 - Elizabeth's NASA Data available (can anyone else use this data to present?)
 - Climate Literacy in the Classroom - Patrick Chandler (90 minutes; 20-30 min intro then teachers get an opportunity to lead activities)
 - Suave - Ilya? (test out on a tablet) (needs a hands-on component) (go to his blog and see what peaks our interest then teacher-ize it)
 - NASA- Giovanni presentations with Jim Acker
 - Pocketlab Voyager demo

- Schedule
 - 8:30-9:30 Intro: one hour + one activity?
 - 9:30-10:30 Plenaries (1 or 2 hrs; outside of 6 hr time)
 - 10:30-11:00 Break
 - 11:00-12:30 Jupyter (1.5 hrs)
 - 12:30-2:00 Lunch
 - 2:00-3:30 Member demos/activities (30 -45 min) x 2
 - 3:30-4:00 Break
 - 4:00-5:30 Member demos/activities (30 -45 min) x 1-2 + PocketLab Voyage/Air demo and recruitment
 - 5:30-8:00 Research Showcase (would teachers want to contribute/share?)
- Advertising & registration fee (and get back)
- Session proposal - Margaret & Shelley

ESIP Collaboration Area Highlights Webinar - 3-minute 1-slide lightning talk (4/19)

- Bullet points from implementation plan for the year; with more time on summer workshop
- Include how individuals can be virtually involved (see our wiki area!)
- Margaret doing first draft ; Becky to present

Future Summer Meetings & EER - still trying to co-locate or schedule back to back weeks. New contact person, Caroline Smith (EER), may be interested in working with us. There's approx 6 ESIP'rs that would go to EER if the right configuration. Next ESIP is in Burlington, VT 2020.

Pocket Lab Update- Shelley to contact Erin & Dan K to have the Voyagers purchased and sent to Kalo... waiting to summer to purchase the Airs and yearly teacher selection (from pool of teachers @ Summer session)

NSTA 2019 - Participating in Share-a-thon; No workshop session, approved to request funding change

EER - CLEAN - Katie - Table @ share-a-thon + teaching demonstration - Handout the ESIP one pager?

Feb 21, 2019 @ 2pm ET

Participants:

Becky Reid
LuAnn Dahlman
Megan Carter
Robert Downs
Carla McAuliffe
Elizabeth Joyner
Katy Rico
James Acker
Shelley Olds
Margaret Mooney

Agenda:

- Winter Meeting - Ed Working Session Recap
 - Helped to generate interest, established connections
 - Need to seek out the right notebooks to have them prepared for teacher learning
- What's Next? Plans for Summer Meeting
 - LuAnn-- modifying the hurricane activity, adding in the pedagogy aspect
 - ~90 minute activity
 - Need people to try it out and provide feedback
 - Other potential content:
<https://www.popsci.com/scripts-macros-in-google-docs-sheets#page-2>
 - Fee? \$50 held until they show up.
 - \$50 registration fee, \$250 stipend for showing up
 - A series of skills-building activities building up to LuAnn's hurricane activity
 - Elizabeth - can send NASA materials to hand out
 - Do we want more than one
 - Day: Wednesday
- ESIP Education Committee Technology Permanent Loan & Lending Library
 - PocketLabs: Lending and Curriculum
 - Pocketlab air in production, not available yet (maybe end of March)
 - Waiting to hear back from Kalo about what he needs curriculum-wise - Check back with Kalo
 - Need to get a teacher (maybe summer program-oriented) lined up for borrowing the Pocketlabs; 1 year loan
 - Use summer meeting to recruit (teachers from previous years?)
- Jupyter Notebooks: Summer Meeting session, Notebooks for Educators
- Out2Lunch: schedule update, recruitment, ideas:
<http://wiki.esipfed.org/index.php/Education/Out2Lunch>
 - [2.1 March 13 - SuAVE - Ilya Zaslavsky, Spatial Information Systems Lab, UC San Diego](#)
 - [2.2 March 20 - Science Pickle - John Pickle, Retired science & math teacher, Founder: Science Pickle](#)

- [2.3 March 27 - Weather and Climate Web Apps - Tom Whittaker, Researcher-Emeritus, CIMSS, SSEC](#)
 - Shelley - to reach out to Concord Consortium for April 3 Out to Lunch
 - NESTA Share-a-Thons at NSTA National in St. Louis - Please sign up!! How about a flier to recruit for the summer workshop?
 - Sign up link: <https://www.surveymonkey.com/r/NESTAshareathon>
 - Let's make a flier for the summer workshop & PocketLab lending library!
 - Recruiting from people near-by (Washington, Oregon)
 - Reminder-- NESTA abstract deadline April 15th
 - Conference in Boston this year
 - Think about this for our March meeting.
 - Earth Educators' Rendezvous - conflicts with Summer Meeting
 - Rendezvous date is standing, maybe in the future consider shifting ESIP or making them back-to-back in the same place?
 - Also a Gordon Research Conference at the same time
 - Wiki updates-- any updates to goals/implementation plan?
 - Katy is going to do updates to the wiki page
 - Shelley will send the 3 documents (summer workshop, Project work, Special Project)
 - Share your resources with NESTA ! Send Carla a blurb.
 - March 21 - Next meeting
 - Need to put in the application for the summer workshop to ESIP - we can review/revise
-

Dec 20, 2018 @ 2pm ET

Participants:

Katy Rico
 Shelley Olds
 Carla McAuliffe
 Becky Reid
 Megan Carter
 Margaret Mooney

Agenda

- Jupyter notebook/ESIPhub - meeting organization
- Slide for ESIP Winter meeting
- Hand off to Becky
- Update our wiki area: <http://wiki.esipfed.org/index.php/Education>
- **2019 Area Conferences -- Due January 15, 2019**

- Salt Lake City, Utah: October 24–26 (Possibly Shelley)
- Cincinnati, Ohio: November 14–16 (Possibly Margaret)
- Seattle, Washington: December 12–14 (Possibly Becky)
- **National Conferences -- Due April 15, 2019**
- Boston, Massachusetts: April 2–5, 2020

Notes:

- Jupyter notebook/ESIPhub - meeting organization
 - Dan will have a Goto Meeting set up - it will be posted in the Sched.
 - Full schedule: <https://2019esipwintermeeting.sched.com/>
 - **2-3:30 Tuesday ET January 15, 2019**
 - Goal(s) of winter session:
 - Outline of summer workshop
 - Learning objectives of interacting with Jupyter:
 - **We want teachers to have a positive experience slightly modifying code (within a Jupyter) notebook to see that it's not magic ... that they could do some simple code hacking to be able to show .. maps/ remote sensed images / layering on data/ make a graph (animate the graph).**
 - Give them something to do with their classrooms
 - Datasets? I know we've started this discussion
 - Look at GOES 16 example: https://github.com/blaylockbk/pyBKB_v2/blob/master/BB_goes16/mapping_GOES16_data.ipynb
 - What do we want teachers to be able do?
 - Displaying visualizations?
 - Make plots?
 - Animate the plots?
 - change/ filter / cluster? predictions?
 - Look at NASA example
 - Carla - will share a snippet from GIFT presentation
 - To do: collect simple examples together - or items that could be modified to be simplified & streamlined
 - (could I (Shelley) grab the Python code from Chuck on volcanic ash 'bombs')
- Slide for ESIP Winter meeting... Due: Jan 4
- Hand off to Becky as incoming Chair
 - Use of drive to house projects-- talk to Dan to find the proper avenue/folder
- Update our wiki area: <http://wiki.esipfed.org/index.php/Education>
 - Katy- Email Dan and CC Megan to facilitate this

-
- Summer Meeting: July 16 - 19, 2019 in Tacoma, WA
 - Educator workshop date is not set
 - Overlaps with the EER
- Upcoming conferences:
 - Note: we canceled the 2019 NSTA March conference session
 - Note: GSA is 22–25 September, 2019 in Phoenix
 - **2019 Area Conferences -- Due January 15, 2019 -- let Carla know**
 - We could recycle our proposed abstract - adding in Jupyter
 - -- the 25 word description is what shown on NSTA's website
 - Use the name: **NESTA & ESIP: title**
 - Remember to session abstract number to Carla
 - Salt Lake City, Utah: October 24–26
 - Shelley?
 - Cincinnati, Ohio: November 14–16
 - Skip? Margaret? Shelley?
 - There is Ohio Earth science state teachers association - expectation of many session (OESTA)
 - Seattle, Washington: December 12–14 (this overlaps w/ AGU)
 - Becky?
 - **National Conferences -- Due April 15, 2019**
 - **Boston, Massachusetts: April 2–5, 2020**
-

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**November 14 @2:30 EST, 2018**

### **Participants**

Katy Rico  
 Margaret Mooney  
 Megan Carter  
 Shelley Olds  
 Alan Gould  
 Kalo Haslem  
 LuAnn Dahlman  
 Robert Downs

## Agenda

0. Introducing our ESIP Fellow: Kathryn Rico from University of Michigan!

1. Sean Gordon will provide an introduction about Jupyter Notebooks. Then discussion about the Learn to code initiative for teachers

**- The Winter Meeting session proposals are due COB Friday, November 16, 2018. - this has been submitted**

LuAnn submitted a draft proposal on 11/13 for a working session at the Winter Meeting. View or edit the proposal [here](#).

**Sign up for the quick-start session w/ Sean: <https://goo.gl/nvTjTg>**

Let's get started:

- Sign up to get an ESIPhub account
- Brainstorm topics and activities to guide curation
- QuickStart session availability: November 26, 27, 28. 10 or 11 am
- **Google Doc for sign up and brainstorming: <https://goo.gl/nvTjTg>**
- Sean Gordon - Jupyter workshop consultant:
  - Curate a collection of potential notebook examples
  - Prepare ESIPhub environment for curated collection
  - Set up user accounts on ESIPhub
  - Guide exploration through selected examples
  - help develop a "storyboard" to illustrate the power and value of exploring and manipulating notebooks
  - Provide guidance to build pedagogical supports into one or more existing examples for use at the workshop

2. Out2Lunch webinars - spring talk recruitment

Concord Consortium - Amy Pallent

Randy Russel -

John Pickel

Jupyter Notebooks -

3. Handout - draft



## Education resources of the ESIP Community

  ← Earth Science Information Partners Education Committee Lipsom donum.   Search: ESIP education	→ Connect with us   Follow the latest news about our shifting planet.   Search: ESIP on Facebook, Instagram, Youtube, Twitter, Pinterest  
  ← My NASA Data Earth Systems Data Explorer Check out this tool to access an ever-expanding set of NASA (and other) data to help your students visualize Earth Systems phenomena.   Search: My NASA Data	→ UNAVCO Education &amp; Community Engagement   Find our full suite of education resources on the science of measuring the Earth.   Search: UNAVCO Education  
  ← Climate.gov Data Snapshots Find a range of easy-to-interpret climate maps that are ready for reuse in presentations and reports.   Search: climate.gov data snapshots <a href="https://www.climate.gov/maps-data/data-snapshots:start">https://www.climate.gov/maps-data/data-snapshots:start</a>	→ U.S. Climate Resilience Toolkit's Climate Explorer   Check projected climate conditions for any county in the contiguous United States   Search: NOAA Climate Explorer <a href="https://crt-climate-explorer.nemac.org/">https://crt-climate-explorer.nemac.org/</a>  
  ← Global Systems Science High school integrated science course focused on societal issues   Search: <a href="http://www.globalsystemsscience.org/">http://www.globalsystemsscience.org/</a>	→ GOES-16/17 2019 Virtual Science Fair   Search: CIMMS Education <a href="http://cimss.ssec.wisc.edu/education/goesr/vsf">http://cimss.ssec.wisc.edu/education/goesr/vsf</a>  



Feedback by Nov 20 -  
Place CLEAN on here

Suggestions on image: remove pinterest, instagram, consider removing image at the top, add how to get involved (Education listserv), etc.

Put up the Out2 lunch link - as the header

Social media -  
link to email list serve

3. NSTA Charlotte regional conference Nov 2018 - Kalo Haslem. What do you need from the Committee?

Share-a - thon Thursday -  
environmental on Saturday

Out 2 lunch  
Hand out  
Drone - hand out  
Leaving Tuesday

#### 4. Logistics of purchasing and recruiting: ESIP Education PocketLab Technology Permanent Loan & Lending Library

- Will be able to build on the ipad library that Margaret Mooney had done - checked out to teachers
- Ping Margaret for lessons learned - comprehensive sign out procedure
- Kalo is looking to partner w/ university near by for lesson planning w/ the Pocket Labs, science ed grad students

#### 5. *Your items?*

- Hour of Code is nigh and everyone is welcome: December 3-9, 2018:  
<https://hourofcode.com/us>
  - Novice: try one out!
  - Parent: Work with your child(ren) to do a coding activity
  - Expert: try one out! See where our next generation is starting... what can you contribute?
  - Lots of topics from arts to science, lots of languages, lots of technologies

Facebook group on scratch - with good ideas - Teaching Scratch / Scratch for Educators  
Scratch has a Makey Makey add on for using it as a sensor

Plug for the Quick start session on Jupyter that will occur - week after Thanksgiving!  
LuAnn will send Megan a Monday Update - to send by Tuesday / Wednesday

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Oct 18 @ 2pm, 2018

Participants:

Becky Reid
Margaret Mooney
Jim Acker
LuAnn Dahlman
Megan Carter
Bob Downs
Patricia Reiff

Agenda:

1. Introducing: Megan Carter, ESIP's New Community Director
2. Budget update
3. Call for Sessions | 2019 ESIP Winter Meeting, January 15 - 17, Bethesda, MD:
<https://docs.google.com/document/d/17sj7TJ7J3AEwgc66LteWNSokGevxDKuKap7LBalwYNQ/edit?usp=sharing>
 - a. Scicom session - might have a session that LuAnn would participate in if going.
4. Handout of ESIP member ed pages/tools
 - a. Pull from Out2Lunch pages as well
 - b. One Page - double sided ?
5. Call for Socioeconomic Value of Earth Science Data, Information, and Applications: the important role education plays in enhancing/contributing to the socioeconomic value of Earth Science data.
 - a. Who is the audience
 - b. 20 -25 minute
 - c. Bob Downs had given a talk on the Geovalue book - Bob's one of the authors. Methodological approaches to assessing value of data (economic, bibliometric, qualitative methods).
 - d. We can say no.
6. Upcoming education events:
 - a. NSTA regional Charlotte
 - b. Out to Lunch
7. Highlights from the ESIP program committee meeting budget info.
 - a. 20th Anniversary [Time Capsule](#) reminder and invitation for input
 - b. Ignite@AGU - Wednesday, December 12 at Poets and Busboys; Call for talks will be out next week.
 - c. 2019 ESIP Winter Meeting - Jan 15-17, 2019
 - d. 2019 ESIP Summer Meeting - July 16-19, Tacoma, WA (Tentative)
 - e. Anyone that is interested in becoming ESIP EdComm chair should email the team at nominations@esipfed.org.
 - f. Endorsement and ESIP logo - ongoing discussions
 - g. ESIP award culture: [Award Calendar](#)
 - i. Draft about Award Culture:
 - ii. *ESIP as a Community with an Award Culture*, written by Christine White
 - iii. An award culture is a community that notices and promotes the good work of others. Because promoting the good work of others takes time and practice, becoming an award culture is a process and not a destination. Sending a letter of introduction, filling out an award application, or even writing an authentic "Thank you" letter can be inconvenient. Yet doing so builds up the positive mindset and reputation

of our colleagues and our field, adding to the strength required to work on the challenges of our day.

- iv. [ESIP's values](#) – openness, participation, inclusiveness, and innovation - are about supporting one another and growing together. Experienced professionals are often good at calling attention to their own contributions. Early and mid-career professionals sometimes need encouragement to do this. Being an award culture means holding up contributions from all types of professionals, giving them place and permission to offer their whole multi-faceted selves and even self-nominate to share their achievements.
- v. And finally, award culture can include helping others – or oneself – attain actual awards. As you know, ESIP's Program Committee has an [Award Calendar](#) for ESIP members to access and add award opportunities as we all become aware of them.

8.

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August 8, 2018

Participants:

Shelley

Kalo

Becky

LuAnn

Patrick

Carla McAuliffe

Agenda:

1. Fiscal year 2019 budget items to discuss

- Due Date... end of August. Continue discussions online too.
- What project(s) do we want to consider?
  - A return to broader Earth Science? Continue w/ coding, with support from Jupyter gurus? Supporting other Edu/training components w/in ESIP?
  - ESIP Theme 2019 is ... "Looking Forward" proposed
  -
- Yes move ahead - Coding in classroom: taking it into orbit w/ Jupyter

- Is this a Special Project? Special project max = \$7k
- 
- Funding for Jupyter & curriculum experts to put a learning module together in Jupyter?
- Should this be an ESIP special funded project too?
- Purpose: How to use coding as a tool to promote Earth Science learning/ ESIP content to school
- Using ESIP Hub: Sean Gordon, Ben, Keith Maul, Ben G, others - modify some project that already exist
- Frank G has good examples
- ProjectGUTS - <http://159.65.232.49/https://teacherswithguts.org/welcome>
- Way to connect - earth science, citizen science, data
- Yes - move ahead - Sponsoring students
- Yes - move ahead- SACNAS student - Earth Science focus (\$1000) (<http://sacnas.org/>)
  - Attach some strings - report back
  - Need to hear who is the recipient?
  - What is this money used for? Any obligation?
  - Where is the money sent?
  - Is the presented by Erin Robinson
  - Ask Erin to share her experience
  - Other/More options - to teacher, Friends of Earth Science NESTA reception @ NSTA national; (NAGT, NOAA) - certificate
- No - Student @ EER ? ... ESIP summer workshop location (under discussion) ...
- Yes - move ahead - Teacher Workshop @ ESIP Summer Meeting
  - One day workshop
  - Partial funding (registration) comes from NOAA
  - ESIP funds stipends, instructors, materials
- Yes - move head - Presenting @ NSTA national 2019 (have an abstract in for 1 or 2 hour session)
  - St. Louis (National): April. 11–14, 2019
  - (still waiting to hear on session proposal)
  - Share a thon(s)
  - 2 people
- Yes for 2 regional 2019 + Share-a-thon Charlotte-- Present @ Regional NSTA Share-a-thon @ Charlotte (Charlotte: Nov. 29–Dec. 1, 2018)
  - Share a thon is Friday, November 30 11AM to 12PM
  - What would we share? Drones, coding..
  - Registration for day & fuel & one night stay to help
  - Kalo could possibly go
  - FYI - Reno: Oct. 11–13, 2018

- Registration for day - & fuel & one night stay
- Registration dates
  - Reno, NV: Early bird: Aug. 31, 2018 Advanced: Reno: Sept. 21, 2018
  - Charlotte, NC: Early bird: Oct. 19, 2018 Advanced: Nov. 9, 2018
  - FYI - National Harbor (MD): Nov. 15–17, 2018
  - Early bird 190 full/170 one day; **advanced 200/180 one day**
  - Dates due:
- Yes - 2+1 Abstracts for Regional NSTAs + National for 2020?
  - Abstract funds
  - Typically deadline for Regional proposals is around January 15 each year
  - Deadline for National is approximately April 15
  - Locations have not been determined yet.
  - If 1-2 are within driving distance - do we want to present? what to present? + do the shareathon
- yes 2018 AGU + No to - GIFT 2018
  - Hint: topic well aligned w/ NGSS and teachers can see themselves using it in the classroom, (Google Glass - cardboard - took people to Earth science sites; Climate change sessions w/ database & activities)
  - Not doing - GIFT Proposal due August 31, 2018
    - Requires: hands on component
    - Science scientist / communicator
    - deadline Aug 31
    - Location: in DC
    - support for 2 instructors
  - Dates: December 10-11, 2018 (full conference: Dec 10 - 14, 2018) - maybe can help w/ ESIP booth for other days?
  - Application: <https://serc.carleton.edu/nesta/gift.html>
  - Let's plan on 2019 GIFT @ AGU - in San Fran
  - (Ask Erin about professional meetings and presentations)
- Yes - 2019 AMS
  - Margaret, / Carla, / Shelley(?)
- no-2018 GSA conference - ?
  - present & great for recruitment for next summer workshop (message to participants: You can do even more if you come to the summer workshop)
  - Deadline **14 August, 11:59 p.m. PDT**
  - Nov 4 - 7 in Indianapolis
  - Carla will be at GSA
- ?? 2019 GSA conference - in Phoenix in September 2019
  - Carla is the K-12 Program Committee Chair; Is there any way that ESIP would like to be involved? Eg short course?
- Special project: PocketLab project in the classroom from Kalo Haslem
  - Had been a FUNding Friday submission
  - Details: see below

- ESIP Finance Committee Special Projects Request for Proposals:

[https://docs.google.com/document/d/1b3ZZ7pvDHsx9Qf8wv-9VXi8IEdm7MLSmBNGQ\\_Elk1b0/edit#heading=h.ydm2yiyco2](https://docs.google.com/document/d/1b3ZZ7pvDHsx9Qf8wv-9VXi8IEdm7MLSmBNGQ_Elk1b0/edit#heading=h.ydm2yiyco2)

- Out 2 Lunch
  - 4 sessions in the fall; 4 in the spring
  - Margaret sending invites
- Your ideas!!

## 2. Please do your summer meeting expenses!

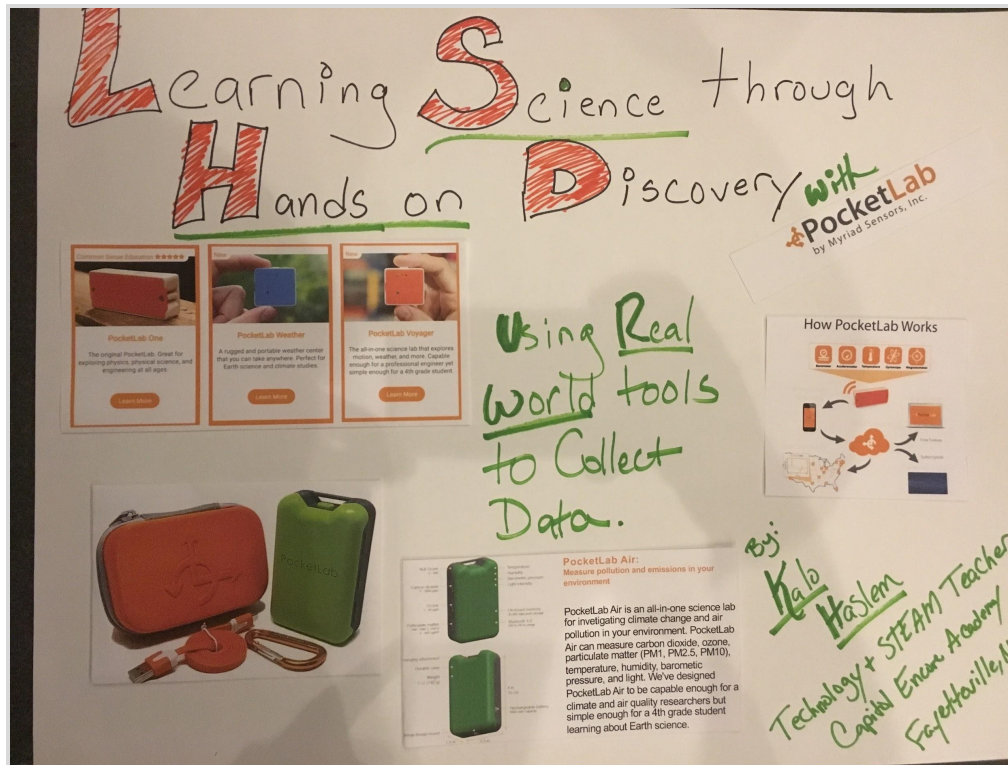
- Send to Shelley & [staff@esip.org](mailto:staff@esip.org)
- Slides & Pics - if you need the link, I will send it (its a public link so I don't want to post it here, a public viewable doc)

## 3. Summer workshop recap - lessons learned? Reflections?

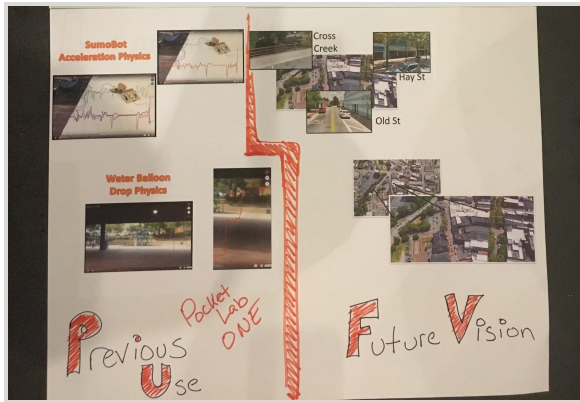
Expenses

## 4. Details - Special project: PocketLab project in the classroom from Kalo Haslem

PocketLab Project Presentation



Initial lesson Ideas:



Activities would be published multiple places: ESIP, sensor website (w/ attribution to ESIP), etc  
 Future activities could tie data collected w/ remote sensed data  
 Possible citizen science focus  
 Use with past focuses such as drones and coding  
 Lending library & permanent 'donation'?

#### Projects from 2017-2018

|                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------|
| 1) Data tool videos, "Out to Lunch" – Supported by ESIP GoToMeeting                                                                 |
| 2) Learn to code initiative for teachers                                                                                            |
| 3) ESIP Summer Meeting Educator Workshop                                                                                            |
| 4) Imagery Education Community and Summit (travel support for one)                                                                  |
| 5) Final Drone workshop: Drones in STEM at NSTA Milwaukee (Travel support for one)                                                  |
| 6) Travel support to present at the Earth Educator's Rendezvous on Science Education (travel & registration support x 2 presenters) |
| 7) Development of listing of ESIP member Education programs & products                                                              |

Extra notes: Encourage to make dates for summer meeting soon

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July 11, 2018 - no call

June 13, 2018 Monthly meeting

**Agenda -** [Find our running notes Google Doc here.](#)

At this point we have these agenda items:

**Attendees:**

Patrick Chandler  
Shelley Olds  
LuAnn Dahlman  
Elizabeth Joyner  
Becky Reid  
Kalo Haslem  
Carla McAuliffe  
Margaret Mooney  
Erin Robinson

## Agenda

Team To do: Connect to your teacher networks in Arizona (and region)

- Excom updates
  - Slack as communication tool
  - lab@esipfed.org to send the slides
- Workshop updates?
  - Combo of Scratch and Ozobot
  - Group fun activity Thinkfun Rover:  
<https://www.thinkfun.com/products/rover-control/>
  - Evening Zoom w/ Carla & Elizabeth (Central time)
- Teacher recruitment: Individual calls to recruit teachers (went out to ASTA teachers, June 1) - cap of 15 (... 20 officially)
  - Sent to AZ Association of Science Teachers - emailed and Facebook
  - Sent cold emails to AZ science teachers
  - Sent to AZ A ST - it was in newsletter on page 24 (Under computing)
  - Sent to local teacher who posted to local list
  - Will NESTA Facebook post again
  - Patrick: sending to CLEAN network again
- To send the workshop teachers:
  - Teachers to bring: computers & iPads/tablet: there are apps for Ozobots , (scratch on laptops / Google chromebooks)
  - watch the May Out2Lunch
  - Bring your own dongles for USB plugs)
- Start of discussion of 2019 budget items...
  - Teacher Workshop
  - Presenting @ NSTA (have an abstract in) - St. Louis (National): April. 11–14, 2019 (

- Budget to help w/ regional shareathon
  - Charlotte!!! There will be a share a thon -- Kalo?... Regional NSTA - Charlotte - put in budget to help offset costs for Kalo as ESIP person
  - Reno: Oct. 11–13, 2018
  - National Harbor (MD): Nov. 15–17, 2018
  - Charlotte: Nov. 29–Dec. 1, 2018
  - Consider a regional for 2019
  - GSA conference - present & great for recruitment for next summer workshop (too late for 2018)
  - You can do even more if you come to the summer workshop
- Sponsoring SACNAS student - Earth Science focus (\$1000) (<http://sacnas.org/>)
- ? Budget to present @ GIFT workshop - in DC, deadline Aug 31
  - Application: <https://serc.carleton.edu/nesta/gift.html>
- ? Budget to support student @ EER ? ... ESIP summer workshop location (under discussion) ... could it be with EER?
- To continue this in our Fall discussion - more Earth Science,
  - Consider: classic tools of NOAA (Climate portal) and NASA (90 World View)
  - My NASA Data - redesigned! - rolling out
  - Giovanni - restructured! - more engaging for non-scientists - more data layers
  - Remember that NESTA will sponsor, support, and promote
  - Kalo haslem (to All): <https://youtu.be/GYwoy8D9cSY>
- ESIP in Australia -- might be a connection with scientists in the classroom in Australia
  - Contact: Vicki Stavropoulos, CSIRO Education & Outreach  
[vick.stavropoulos@csiro.au](mailto:vick.stavropoulos@csiro.au) (<https://www.csiro.au/en/Education>)
  - Scientist - Teacher partnerships @ AGU (w/ NESTA, NAGT sponsorship) - maybe the Australia ESIP would be interested in being involved.
- No Call in July
- Yes to call in August

May 9, 2018 Monthly meeting

**Agenda** - [Find our running notes Google Doc here.](#)

At this point we have these agenda items:

Attendees:

Shelley Olds

LuAnn Dahlman

Carla McAuliffe

Becky Reid

Elizabeth Joyner

Margaret Mooney

Bob Downs

Kalo Haslem

**Agenda**

Team To do: Connect to your teacher networks in Arizona (and region) - plug the May 23 Out 2

Lunch with the teaser of choosing with programmable object ahead of time (Ozobot bit or Makey-Makey)

- ESIP slides for summer meeting - review (Due: early-June)
- Excom (Program committee) updates (if any)
  - Travel - everyone is sending their travel plans/invoice (Becky, Margaret, Kalo, LuAnn)
- Out2Lunch update
  - Today was SIFT
  - 2 weeks from now is sneak preview of summer workshop
    - Preview of Scratch - and what to look at before you come
    - Preview Ozobots and Makey-Makey - getting into coding/ pairing with Scratch and other programs. Parallax (Block and C coding) to jump into more complex, real world collecting data... then
    - May 23: 1pm EDT, 12 pm CDT, 11am MDT, 10 PDT + Arizona
- Summer workshop
  - 'Auction' to the teachers : 15 teachers; Out2Lunch teachers get first bid
  - Ozobot: evo (newer, UV sensors, sensor, more) vs bit (older)
  - Instructor Material: Becky (Ozobot + Makey-Makey); (copper ink, copper foil, conductive ink)

- Links of materials through TERC
  - <https://external-wiki.terc.edu/display/SCRATCH/>
  - <https://external-wiki.terc.edu/display/SCRATCH/Curriculum+and+Support+Materials>
- Materials
  - Crayola markers
  - Posterboard paper roll
- Teachers to bring: computers / iPads: there are apps for Ozobots

Useful links:

Building Systems from Scratch

<https://www.terc.edu/display/Projects/Building+Systems+from+Scratch>

<https://external-wiki.terc.edu/display/SCRATCH/>

<https://external-wiki.terc.edu/display/SCRATCH/Curriculum+and+Support+Materials>

April 11: Monthly call

Attendees:

Shelley Olds

LuAnn Dahlman

Margaret Mooney

Carla McAuliffe

Kalo Haslem

Elizabeth Joyner

Agenda

- ESIP slides for summer meeting (Due: mid-May)
- Excom (Program committee) updates (if any)
- Summer workshop

**Discussion - Take notes here:**

Slides for Summer meeting:

- Becky might have some slides

- Margaret has slides - Taking lead!

-

Purpose:

- \* Attract people to your committee/cluster work

- \* Help ESIP understand what you are doing, coordinating synergistic activities

Preferred Format: 4:3 1024x768 (Standard for PPT and Keynote)

Content suggestions for slides:

- \* Leadership and mission/goals of committee/cluster

- \* 1-2 KEY Questions that your work seeks to answer (This is really good discussion to have!)

- \* Connect to the strategic plan, if it does, or how the strategic plan might need to change in the future

- \* Activities you've accomplished in the past year

- \* Activities you have planned for the coming year

- \* Good graphics are a PLUS

- \* Connections you have with other clusters/committees/ organizations

- \* Or connections/wants that you might have

Excom (Program committee) updates (if any)

- Tracking of our goals/ tasks throughout the year

Done -- Implementation plan - Shelley to post

Summer Meeting update:

July 18, Wednesday

11:30 - Welcome and ESIP overview

11:45 - Coding (Becky)

1:00 - LUNCH (at educator tables)

2:00 - Coding Gadgets (Kalo) - each teacher will receive a 'gadget' (tbd) to take back to their classroom.

Show/tell gadgets - ozobot: how it works, video of it, show a project from class ; makey-makey; parallax robot (has sensors) (uses block coding & c coding) (to show how it works)

Setting up stations - that teachers can work at

[a few minutes]

3:30 - Break

3:45 - Mini-ignite STEM Treasure-trove - 10-minute data resource talks

UNAVCO Velocity Viewer

CIMSS GOES-16/17 Virtual Science Fair

NOAA Climate Explorer and Data Snapshots

SEDAC Map Viewer

ESIP/UCAR Drone Resources

4:45 - Brainstorm & Collaborate session. Work together to integrate tools into classroom teaching. [teachers talk about they learn and how to integrate] - Shelley lead

5:15 - Drone raffle (2 teachers will take home a recreational drone!)  
5:20 - Evaluation and wrap-up - Margaret lead  
5:30 - Adjourn

Adding in App inventor - from MIT / android and IOS - there's weather stations that students can pull data into the app ; pull in eq data; Cody Short developed some of this - worked with Space Grant program - now working with DOD to work w/ kids ;

Registration - will open

-- Advertising the workshop

Carla - AZ state teachers association ; don't plug into the NESTA facebook group.

LuAnn

Shelley

Also advertise the out2lunch the local teachers

Kalo - will be advertise to the North Carolina - SE region

NESTA - is doing a share-a-thon at each region if ESIP - Charlotte, NC (November 29 - Dec 1); Reno, NV (October); National Harbor, MD (mid-Nov)

- Kalo will try to go to the Charlotte regional NSTA (NC leadership association) (November 29 - Dec 1) - could share coding gadgets
- National conference (St. Louis, MO) - session due April 16 - Shelley to lead (Kalo interested )

Other gadgets - went with something that could be digital and nondigital; Sphero - didn't go with. Pocketlab - scratch pairing - next year!

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Notes, March 22 : Summer Workshop Planning

Computing in the Classroom - coding, gadgets, and STEM

Wednesday July 20th



Tuesday, is off the table. Wednesday is the new option.
Plenary? Extended workshop: From Plenary to "Research as Art"
Wednesday, all day

ESIP Education is proud to offer a 1-day workshop focusing on computer tools that facilitate data exploration. Most of these tools function on a level above just computer programming yet employ similar critical thinking skills and enable digital data manipulation to achieve specific results.

Description for teachers:

Fun & play

To participate fully, bring your laptop (tablets won't work). You won't need to install any software: we'll be working in a browser.

hands-on workshop combines some simple computer coding (no experience necessary)

Examples from NSTA: <http://www.nsta.org/conferences/schedule2.aspx?id=2018atl>

Morning - Plenary

Decide if any portion of the plenary may be of interest to educators.

11:30 - Welcome and setting the stage

11:45 - Coding – Becky Reid (Will integrate some mixer activities to foster introductions)

1:00 - LUNCH w/ the teachers Introductions @ lunch

2:00 – Coding up Gizmos - Kalo Haslem

3:30 – Break

4:00 – Mini-ignite Smorgasbord - Shelley (Velocity Viewer), Margaret (GOES-16 Virtual Science Fair), LuAnn (Climate Explorer and Data Snapshots), Bob Downs (SEDAC Map Viewer)
Shelley & LuAnn - UCAR drone materials [we will invite esip-all to share their tools]

5:00 – Integrate into your teaching (working together) + Drone raffle

5:20 - Evaluation and wrap-up

5:30 - Adjourn

March 2018

Attendees:

Becky Reid

Kalo Haslem
LuAnn Dahlman
Carla McAuliffe
Shelley Olds
Alan Gould
Robert Downs

Agenda

1. Housekeeping / news from Program committee
 - Summer 2018 Meeting Call for Sessions is OPEN ([USE THIS LINK](#) to start your submission. By April 30)
 - trip reports (enter tool: <http://www.esipfed.org/category/collaboration-updates/travel-reports> ; reports posted here: <http://www.esipfed.org/category/collaboration-updates/travel-reports>)
 - budget / request for funds
 - 3-5 slide summary of Ed Comm (due end May)
 - 20th Anniversary Planning Visioneers Call will be March 28th - they want input!
2. Summer workshop planning
 - Budget aspects
 - Presenters
3. Reminder to advertise the Out To Lunch Webinars - When, the day before? A few days before?
 - Schedule: video and info posted here:
[http://wiki.esipfed.org/index.php/Education/Out2Lunch#Out_2_Lunch_webinar_series - 10 minute demos of Earth Science data tools 26 resources](http://wiki.esipfed.org/index.php/Education/Out2Lunch#Out_2_Lunch_webinar_series_-_10_minute_demos_of_Earth_Science_data_tools_26_resources)
4. Splitting FUNding Friday for Teachers as separate category

Discussion: Take notes here:

Action items (eg to do)

- Save to next month: 4. Splitting FUNding Friday for Teachers as separate category
- Shelley or Margaret- to send Carla the Out to Lunch announcement to post to NESTA eNews
- Carla - to place Out to Lunch announcement into NESTA eNews
- Margaret - sending Doodle- pole for summer workshop planning ; reapply EER funds to ESIP Ed workshop instructor travel;
- Shelley/LuAnn/Becky/Margaret/Bob - to watch video from Kalo on cool programmable objects
- Margaret - to work on summer workshop submission to ESIP + a catchier title

Discussion:

1. Housekeeping / news from Program committee
 - Summer 2018 Meeting Call for Sessions is OPEN ([USE THIS LINK](#) to start your submission. By April 30)

-- Trip reports (enter tool: <http://www.surveygizmo.com/s3/4023612/ESIP-Travel-Report> (this is being updated slightly - reports will be posted online; reports posted here: <http://www.esipfed.org/category/collaboration-updates/travel-reports>)

-- budget / request for funds

-- 3-5 slide summary of Ed Comm (due end May)

-- 20th Anniversary Planning Visioneers Call will be March 28th - they want input!

2. Summer workshop planning

Budget aspects

Presenters

Follow up webinars?

Post workshop - NESTA webinar on Summer workshop

Resources:

Carla recommends this version of ImageJ:

<https://imagej.nih.gov/ij/>

https://serc.carleton.edu/earth_analysis/image_analysis/intro_imageJ.html

https://serc.carleton.edu/teachearth/search.html?search_text=imageJ

[Week 2 is an introduction to ImageJ.](#)

<https://serc.carleton.edu/eyesinthesky2/week2/index.html>

Theme: Computing in the classroom (needs a catchier title)

Presenters: data, tools, and

Bob - theme this year?

Shelley - Computing in the classroom is the theme

Kalo - started with simple (drones) ; maybe bring a device they could code; big picture current projects in the real world ;

Alan - coding/creating a macro - software is a tool ; start w/ basics (pre-macro); basics on how to use ImageJ applied to ES; then create (show then create?) a macro - (v. brief primer on how to use ImageJ as a basic image processor for an Earth Science application before launching into the macro creation function.)

Carla - IMAGEJ course - from TERC - show one or two exciting things - then show how macro make things more efficient -- don't need to have complete tool skills

Becky - agree - give a teaser on the cool thing you can do - then example

Carla - give them a reason to get into the macro - to make quickly (not doing xyz multiple times)

Kalo - then turn it into something practical - students collect data to run the macro on (like take some photos) - simplistic - becomes worth my time (teacher's time) to use this in many different ways... and students can do this (fly the drone/ balloon) - project based learning

Shelley - seeing a sequence

Bob - good if could see different applications - could do something similar with a different tool --

Shelley - SIFT?

Storymaps?

LuAnn - showing how to do Web Map services ; coding light

Becky - use for project maps for students

Carla - two tools sound good to me - no more -

Shelley - Does this show - What is data and where does it come from

Carla - or could this be after - to show how to put into a story map? Ex change over time ... then graphically display that?

Kalo - they (imagej and storymaps) are two separate things - that can support each other - they don't have to be together.

Carla - don't need to go into the uber technical - vector vs raster -

Becky - something they can do themselves

Kalo - How it works, what it can do, then break out approach? Enough to do something with it...

LuAnn - Arduino? Tools? Oz bot?

Kalo - Robot PD - Parallax in April - Block coding oriented...

Carla - if we go that route - for everyone - basic notion of coding -

Shelley -

Kalo - have oz bots x 18 ; makey makey x 5 - students made games + programs

Becky - is this too much?

LuAnn - in the past we presented 6 more tools - with 3 I think we could manage...

Becky - we want them to walk away with something they can use

Carla - goal : raise the awareness and passion about coding ; not necessary about the specific tool - to inspire to learn more and share more with their kids

LuAnn - introduction to all three things - broadening the ones they go to...

Becky - present three things - then they choose gets hands on on one or two

Carla - inspiring

Carla - internet connection?

Becky - usually very good

Carla - what if - Zoom session - recording the session - and they can recorded - as separate pieces

Shelley - student fellow - could

Kalo - video how to that Kalo made: <https://youtu.be/KA4z0s6OHZA>

3. Reminder to advertise the Out To Lunch Webinars - When, the day before? A few days before?

-- Schedule: video and info posted here:

http://wiki.esipfed.org/index.php/Education/Out2Lunch#Out_2_Lunch_webinar_series_-_10_minute_demos_of_Earth_Science_data_tools_26_resources

April 11 - Story Maps - LuAnn Dahlman

April 25 - ImageJ - Carla McAuliffe

May 9 - SIFT - Scott Lindstrom

May 23 - ESIP Education Summer Workshop

- NESTA on Facebook - **now is good** (Shelley: send to Carla - NESTA enews for tomorrow)
- SCICO (Science teachers listserv in Colorado)
- ESPRIT (NY Earth Science teachers)
- Earth to Class (Bob Downs - Michael Passow - can tell someone there to post)

4. Splitting FUNding Friday for Teachers as separate category

/end March

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February 2018

#### Agenda:

- Leveraging winter session for Coding in the classroom -
  - Notes from the session are at the end of the PDF Coding in the Classroom on Figshare:
  - [https://figshare.com/articles/Computing\\_in\\_the\\_Classroom\\_Coding\\_for\\_Kids\\_Working\\_Session\\_ESIP\\_2018\\_Winter\\_Meeting\\_Tuesday\\_January\\_9\\_2\\_00pm\\_-\\_3\\_30pm/5811048](https://figshare.com/articles/Computing_in_the_Classroom_Coding_for_Kids_Working_Session_ESIP_2018_Winter_Meeting_Tuesday_January_9_2_00pm_-_3_30pm/5811048)
- Discussion: Moving forward the Survey of ESIP members on education materials
- Sharing from Winter Session on Capstone projects
- Out2Lunch

#### Capstone:

LuAnn - action item - will look at the Capstone project content and report back

#### Coding in the classroom -

- Jupyter notebook component [LD]
- Block Coding component [BR]
- How to do include the data aspect
- How to apply the block coding to Earth science? [KH]
  - Arduino kit? Has programming code as components already; there are equivalents
  - Do cost money

- Project Guts (<http://www.projectguts.org/>) - has science integration
- Coding through applications
  - ImageJ -
    - GOES-R
  - StoryMap
  - 2x 2hr sessions
  - Post-workshop -- code club to continue the discussion
  - These can be recorded and shared

#### Goals:

Understand where the data is coming from

How to get to get something done

#### Out to Lunch Webinars

- April 11 - StoryMaps ... web mapping services, to pull in data
- April 25 - Image J ... xy data onto a map
- May 9 - Sift
- May 23 - ?? ESRI? MyNASADData?
- [focus on one thing...

Moving forward w/ exploration of the programmable devices

- Kalo - lead a demonstration of the devices and how its used in a classroom
- Makey makey
- Arduino w/ a sensor & data logger
- 3-d printing?

#### Links from today:

<http://Code.org> that integrates science concepts. <https://code.org/curriculum/science>

Project Guts: <http://www.projectguts.org/>

Sift: <http://sift.ssec.wisc.edu/>

Starter kit:

[https://www.amazon.com/gp/product/B01D8KOZF4/ref=oh\\_aui\\_detailpage\\_o01\\_s00?ie=UTF8&psc=1](https://www.amazon.com/gp/product/B01D8KOZF4/ref=oh_aui_detailpage_o01_s00?ie=UTF8&psc=1)

sensors:

[https://www.amazon.com/gp/product/B01MG49ZQ5/ref=oh\\_aui\\_detailpage\\_o01\\_s00?ie=UTF8&psc=1](https://www.amazon.com/gp/product/B01MG49ZQ5/ref=oh_aui_detailpage_o01_s00?ie=UTF8&psc=1)



## Supplemental notes:

### Capstone projects - Lewis McGibbney - JPL:

Our ESIP session titled "Capstone Projects: The Who, What, When, Where and How" [0], although sparsely attended, went very well. The slides are on Figshare at [1]

There were a number of notes taken which I think could be of interest to the Education Committee.

1. As far as session attendees understood, currently the entire Capstone program does not feature on the Education Committee scope of interest.
2. There is therefore the possibility for ESIP to engage with the Capstone program with one or a small number of universities with the focus being on students already internal to ESIP e.g. Student Fellows.
3. Prominent quote of the day, came from session attendee Peter Fox "Capstone is why our kids get jobs" (referring to the Capstone program being extremely influential in students from his institution obtaining employments).
4. Comments were made that engagement with Capstone could possibly broaden the Education Committee's scope and purpose.
5. It could also be used as a mechanism to select high quality student fellows moving forward E.g. the mechanism to connect high quality students with career scientists...

That's about as far as we got. I hope you all had a successful meeting. Please feel free to follow up with any questions.

[0] <http://sched.co/D6Di>

[1]

[https://figshare.com/articles/Capstone\\_Projects\\_The\\_Who\\_What\\_When\\_Where\\_and\\_How/5782128](https://figshare.com/articles/Capstone_Projects_The_Who_What_When_Where_and_How/5782128)

/end Feb

## November 2017 meeting notes:

### Agenda:

1. Exploring Coding Book Club
2. ESRI Imagery Education Summit
3. Update on Survey of ESIP member & Education materials
4. Milwaukee NSTA
5. Transition of Fellows

1. Update/summary of Exploring Coding "book club" Nov 1 session (session and summary are here: [http://wiki.esipfed.org/index.php/ESIP\\_Exploration\\_of\\_Coding](http://wiki.esipfed.org/index.php/ESIP_Exploration_of_Coding)), discussion, and 'assignment' for next session.

- Exciting and fun to do something new!
- Carol Engelmann (sp?) - STEM w/ teachers program, working on a visual coding language that is Python. Shelley seeing if she can find more on this.
- Book club meeting coming up: Next Wednesday (Nov 15th) after Out2Lunch

2. Esri Imagery Education Summit discussion: ESIP Education is sending Becky Reid to this meeting as our ESIP Ed rep. Her tasks so far:

- Look for examples of coding opportunities,
- Provide expertise as a teacher in the discussion about ESRI user interface development
- Provide a v. brief shout out of ESIP Education and what we do, if the opportunity arises and
- Low priority- Seeing if ESRI is interested in data from ESIP members, (eg if an ESRI speaker mentions, 'oh I wish we had data on [some Earth science field]') - the purpose is to help ESIP members disseminate their data more widely. (for example, interest in plate motion velocity data)

3. Update on Survey of ESIP members on educational materials - add your info!

FYI - link to the survey is: <https://goo.gl/forms/tRucUIYUyUQLaCqY2>

Question 1: What is your institution and the title of your education program / project / office / group?

Question 2: Please provide the url to the top level education page that you would like listed on ESIP:

Question 3: What are the main topics and purpose of this area?

Question 3.5: Your organization's education contact information:

Name:

Email:

Phone number:

Please DO NOT post contact information online (if the box is checked, we will not post your contact information online)

- In the next, will include a deadline (have 3 responses to date)
- Subject: Do you have an Education program? Here's your chance to Promote your Education Content! Through ESIP's website - give 2 week deadline - we're trying to identify the members who have education program
- Shelley : to send to ESIP Education list serv
- Should be focused on the members of ESIP
- Send to ESP-all; ESIP-education first as the only item
- Results compilation: list of different programs and projects within this realm
- Discussion:
  - What advice would we give programs that do not have ed programs?
  - How to share the tools further ...
  - Proposal: "Do you have a tool that would be useful in k-12 setting? Would you be willing to present on an Out2Lunch presentation?"
  - Want to ensure that people don't feel burdened to put every education initiative
- Where to post: List on the wiki with additional listings - maybe on the ESIP website?
  - Need to think about where we want the list and how we want to connect that list
- Margaret: follow up with those after the Out2Lunch to do the survey
- Proposal: pull together some advice for PIs about how to help with education
- Add to the larger survey from Partnership - Likert scale - importance/concern of K-12 science education (involvement)
- AGI: policy document on earth sciences - is there a way to provide input into this document?

4. Milwaukee NSTA

- Won't be able to use the drone, but will be doing a drawing for drones
- Kalo, would appreciate sending any good resources

## 5. Transition of Fellows

- New fellow coming in January - Patrick!

## October meeting notes:

### Previous action items:

#### Out To Lunch:

Action: Carla to connect with Margaret if there is one that might work

Completed - do we want both of these talks - ESRI and Drought monitor (drought mitigation center)

[<http://droughtmonitor.unl.edu/>] Action: Shelley to talk with National Drought Monitor HQ to see if they could give a talk (in light of recent disasters)

#### Coding in the Classroom

Action Item: Take a look at EET and other initiatives to see if there is a way for us to incorporate them. Explore what we want to be the learning outcomes. Report back next month.

Action: Shelley to write up a quick draft to send around for input - have a 90 minute education session at the winter meeting. Have a couple at the winter meeting to start the process to get ready for the summer.

#### Done - New Meeting Time

### Agenda:

- 1) Update on survey of education resources available from the ESIP membership
- 2) Update on Budget:
- 3) Recruitment of an ESIP ED vice chair for 2018 who would be willing to serve as Chair in 2019
- 4) Discussion session proposal for the ESIP winter meeting. (Theme: Coding in the Classroom) (Due when?)

### Agenda Details

- 1) Update on survey of education resources available from the ESIP membership

- ESIP is doing a different one, but doesn't focus on the questions we need
- ESIP staff/fellow will collect results and then get it online. Not on the Committee's shoulder to get it all done.

### Survey Questions:

Link to survey will be sent to: ESIP Edu list, Slack, ESIP-all, Monday update (preview link:

[https://docs.google.com/forms/d/e/1FAIpQLSeFtJiVgKK3QwWE\\_TzssKnPUcRLUTQ3N2pbcpYM5BiuAFzGsg/viewform](https://docs.google.com/forms/d/e/1FAIpQLSeFtJiVgKK3QwWE_TzssKnPUcRLUTQ3N2pbcpYM5BiuAFzGsg/viewform))

- What is your institution and the title of your education program / project / office / group?
- Please provide the url to the top level education page that you would like listed on ESIP:
- What are the main topics and purpose of this area?
- Your / Education contact information (will not be published): [partnership had a good comment - what do we intend to do with the contact info]
  - Instead: have a "do not publish my contact info" instead of not publishing any. Can be helpful to have that contact info.

- 2) Update on Budget - [[place this on the agenda]]: all asked for was received

Projects and plans for FY 2018:

Out to Lunch Webinar Series: Out 2 Lunch Webinar Series

CODING! Coding in the classroom initiative

Educator workshop @ ESIP Summer Meeting, July 2018 - theme Coding in the Classroom

Educator Workshop - proposed for 2018 Earth Educator's Rendezvous

-both EER and ESIP happening the same week

Educator Workshop session: Got a Drone? Try This! @ NSTA 2017 Milwaukee Area Conference

Attend and input at ESRI Imagery Education Community and Summit

-Becky Reid will be working on this

### 3) Recruitment of an ESIP ED vice chair for 2018 who would be willing to serve as Chair in 2019

- Vice chair - go to the telecons and step up in the event that the Chair is not available
- Margaret - proposes Becky Reid
  - There is funding for the Winter Meeting (January 9-11th, 2018) for Vice Chair
- LuAnn - on the fence about the coding because it may be a little outside the wheelhouse

### 4) Discussion session proposal for the ESIP winter meeting. (Theme: Coding in the Classroom) (Due 10/30?)

[https://docs.google.com/document/d/1uv7\\_SUS7AKToFQ2VUUUVTw6bG9li\\_JBJLrR2vmoMDFM/edit](https://docs.google.com/document/d/1uv7_SUS7AKToFQ2VUUUVTw6bG9li_JBJLrR2vmoMDFM/edit)

Session Title \*

*Computing in the Classroom*

Session Short Name 38 character max

Draft! Session Description \*

Computer skills are near and dear to the ESIP mission. By encouraging teachers to learn how to code, develop smartphone apps, and design story maps, we help them build the data scientist pipeline. Learning computer skills will help teachers to encourage their students to be creators, more than just a consumer, of the technology around us. In this session we will discuss specific goals for teachers (and their students), options of different computing curriculum, and plan the summer session at the ESIP Education workshop 2018.

Session Type: Working session

Speakers: Four 15 minute presenters (including the teacher who won Funding Friday - why she is so excited to include coding in the classroom).

- *Action:* Send email to the ESIP-ALL to find people interested in presenting - (hour of code presenters?)
  - Incl. ESRI for story mapping (define what we want them to show, eg web mapping service)
- *Action:* Shelley to send around to the ESIP Education List the session description for sign off. Then will submit it.

Moderators: Shelley

Session Audience

- Is coding really the right new program for the Education Committee?
- People may be interested in story mapping
- Web (m)Apps & Story Maps - would build on a ESRI product
  - Beauty and Joy of Computing - curriculum is online
    - [http://bjc.edc.org/bjc-r/topic/topic.html?topic=nyc\\_bjc/1-intro-loops.topic&course=bjc4nyc.html&novideo&noassignment](http://bjc.edc.org/bjc-r/topic/topic.html?topic=nyc_bjc/1-intro-loops.topic&course=bjc4nyc.html&novideo&noassignment)
- Turn it into a “book club” event - invite educators to engage. Get together to try out new exercises together.
  - Eg. could have a story mapping series; still is computing
- *Winter meeting*: planning session. Biweekly basis, take an hour together to work through the Beauty and Joy of Computing curriculum. Come together at the Winter Meeting to prepare for the Summer Workshop.
- **Meeting for “book club” - every other Wednesday right after Out2Lunch** - First would be 11/1; 12:30PM Central
  - *Action*: Margaret sends around necessary chapter of Curriculum

5) Highlight on the Drone workshops:

<http://www.unavco.org/highlights/2017/STEMdrones17.html>

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## Agenda Items for Tuesday, Sept 20, 2017

1. Shout out to Pat Reiff who won the best ESIP story prize - DJI drone!
2. Out 2 Lunch - Fall and Spring (<http://wiki.esipfed.org/index.php/Education/Out2Lunch>)
3. Coding initiative
4. Budget update
5. Call for Winter Meeting  
([https://docs.google.com/document/d/1uv7\\_SUS7AKToFQ2VUUVVTw6bG9li\\_JBJLrR2vmoMDFM/edit](https://docs.google.com/document/d/1uv7_SUS7AKToFQ2VUUVVTw6bG9li_JBJLrR2vmoMDFM/edit))
6. Future monthly meetings

**Attendees:** Shelley Olds, Pat Reiff, Johanna Bozuwa, Bruce Caron, Margaret Mooney, Carla, Kalo Haslem

### 1. Congrats Pat!

### 2. Out 2 Lunch

- ESRI has been solidified
- Citizen Science Bat Monitoring - December potentially
- If anyone has additional ideas, please contact Margaret
  - *Action*: Carla to connect with Margaret if there is one that might work
  - *Action*: Shelley to talk with National Drought Monitor HQ to see if they could give a talk (in light of recent disasters)

### 3. Coding Initiative

- Came out of the summer workshop, near and dear to ESIP's heart

- Next summer's conference: part of the workshop would be for teaching coding skills
- One of the teachers won a FUNding Friday this summer around coding.
- Next step: have a 90 minute education session at the winter meeting. Have a couple at the winter meeting to start the process to get ready for the summer.
- Coding can look like a lot of different things. Could do formulas and macros to developing a whole application. There are some chapters that might work well from EET.
  - LuAnn may have some info on this since she helped write them.
  - Carla has taught all the chapters and would be a good resource. Sadly, EER overlaps with the summer meeting (16-20)
  - Pat - some spreadsheet
    - This is important, since very few students have the background in programs like excel
  - Kalo - [OZO bots](#) - computer programming robots. Solid black lines and dashed lines (a bit like morse code). Can work on an iPad screen. Students have been very interested. Another: [plastic mouse](#). Meant for younger students (lower elementary). Teaches that coding is a series of steps leading into each other.
  - Shelley - visual & dataset.
    - [Pocketlab](#) -real time data and graphics. Someone had one with them at the Summer Meeting and was able to develop a lesson around it.
- Action /Item: Take a look at EET and other initiatives to see if there is a way for us to incorporate them. Explore what we want to be the learning outcomes. Report back next month.

#### 4. Budget

- We will hear by the end of the month on our proposed budget. Includes:
  - Learning to code (will include some professional development for some of the Education Committee & materials)
  - Workshops: Summer meeting, EER, Margaret at NSTA,
  - Development of a listing of education resources (we don't need budget ourselves because will most likely be wrapped up into another part of the ESIP budget)
- Sidenote: EER & ESIP overlap - Thursday Friday are the important dates for EER. It is in the budget to provide a workshop at EER.

#### 5. Call for Winter Meeting (Jan 9-11, 2018)

- Action: Shelley to write up a quick draft to send around for input
- Margaret can't come this year, sadly. Overlap w/ AMS

#### 6. Future Monthly Meetings

- Wednesday or Thursday @ 3PM, would that work?
  - Thursday @ 3PM
- Action: Shelley & Johanna to send out a doodle for changing the official time of the Education Committee meeting

#### Notes:

- Collaborative video editing that ESIP has access to. Could be fun and helpful. WeVideo: <https://www.wevideo.com/invite/?promo=2Q2GU3NVH2BV&join=-1425075159>
- Action: Margaret to send Out2Lunch descriptions to Carla so they can be highlighted

Coding in the classroom. Note that there was a great keynote FOSS4G talk by Joe Cheng (of rShiny fame) called "Coding as a First Resort" <https://player.vimeo.com/video/231984830>

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## Agenda Items for Tuesday, June 13, 2017

- 1) Summer workshop planning
- 2) Eclipse resources- spreading the word
- 3) Poster for EER & ESIP Summer Meeting
- 4) Identify top-level education resource page survey: Action item
- 5) Good of the order: [everyone shares their recent related work, etc]

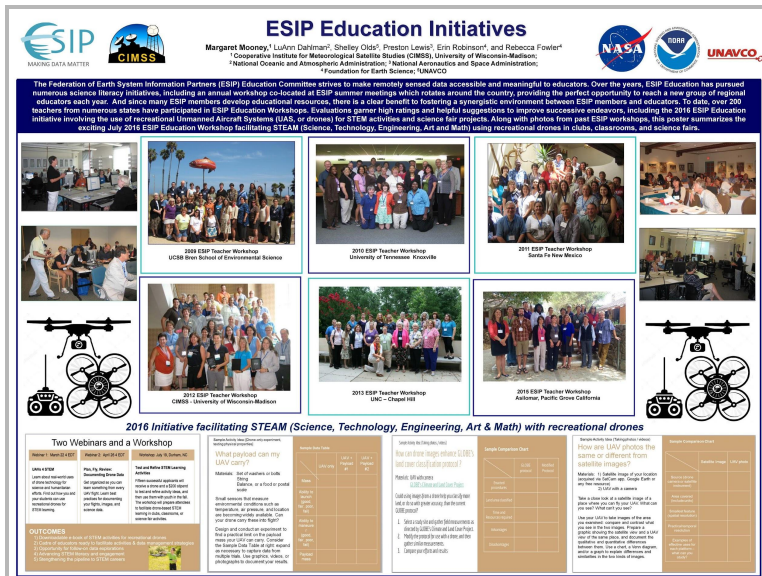
**Attendees:** Shelley Olds, Johanna Bozuwa, Margaret Mooney, Robert Downs

### Action items:

- Shelley to bring an adapter for an iphone/ipad so that we can do a real time demonstration
- Margaret - ESIP Digital poster
- Shelley - Put questionnaire into a google survey form - post to esip all; slack and at meeting

### Notes:

- 1) Summer workshop planning
  - a) ESIP workshop agenda <http://wiki.esipfed.org/index.php/Education/2017edworkshop>
  - b) EER workshop info  
[http://serc.carleton.edu/earth\\_rendezvous/2017/program/morning\\_workshops/w4/index.html](http://serc.carleton.edu/earth_rendezvous/2017/program/morning_workshops/w4/index.html)
- 2 drone models tested out aren't meeting our needs, but the model from last year does. Just doesn't have the auto landing capability that the new models have. One was the "step up" but too powerful for inside.
- Bob's presentation: needs ppt ability. Bob has sent to Margaret the link to the NASA HazPop app so that she can send it to the teachers via email.
  - Shelley to bring an adapter for an iphone/ipad so that we can do a real time demonstration
- 2) Eclipse resources- spreading the word
  - If people ask about this, we should point them to the Out2Lunch resource
- 3) Poster for EER & ESIP Summer Meetings
  - a) Checking: A [search on EER](#) shows we do not have an ESIP poster at EER . Is that correct?
    - Last summer it was accepted, but it wasn't submitted for this year
  - b) Digital poster from the committees:
  - c) List of 2017 Accomplishments
    - i) Out 2 Lunch: need numbers
    - ii) Drones in STEM workshops
    - iii) EER should be put on
  - d) Poster from 2016:



PDF: <http://wiki.esipfed.org/images/8/8b/ESIP-Education-Initiatives-2016.pdf>

- 4) Identify top-level education resource page survey: Action item
  - 3 question survey via google forms, w/ short link to easily typed in.
    - Title
    - Link
    - What is this area/ resource good for?
    - See if we can make an announcement / slide to Erin - state of ESIP - to share to the huge group; esip all, and slack
    - The goal of this survey is to create a list of the education programs that ESIP partners provide. provide better visibility of the education and outreach our community offers
- 5) Good of the order: [everyone shares their recent related work, etc]
  - Bob: big data education
    - Maybe an idea to broadcast that ESIP education via Out2Lunch & other venues are promoting the usage of big data through these tools that the partners have developed
    - A lot of hype around big data so should leverage that hype
      - Career perspective - a list of "big data" skills in order to get a position in a data oriented career?
  - Margaret: Looking forward to seeing everyone in Bloomington! Let's have a lunch together

Thanks Johanna for taking notes!

/end of meeting

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## Agenda Items for Tuesday, May 9, 2017

**Attendees:** Erin Robinson, Johanna Bozuwa, LuAnn Dahlman, Margaret Mooney, Shelley Olds, Dan Zalles

## Earth Educator's Rendezvous [workshop planning](#)

- 25 people signed up, as of last Friday
- Could have up to 40 participants - if it goes beyond 25, might be worth asking them to cover the costs of another instructor
- Only the 1st 20 will have the drone - people don't know if they are in that 1st 20
  - *Action Item:* Shelley and LuAnn to talk to organizers to remind them to communicate on the registration page that the first 20 teachers ceiling has been reached!
- 

## Drone eBook: will be online at UCAR, via Randy Russell

- Randy to get a contract to Erin by Friday (12 May)
- If you have photos, please send
  - *Action Item:* Margaret to send to Randy pictures for her activity
- Dual host the activities
- *Action Item:* Shelley to translate this to a pdf so it can be downloaded all at once and be printed out for teachers
- Goal for it to be finished by June (before both workshops)

## ESIP Summer Meeting

- Kalo got a new job, so now will move over towards more hands on activities - sensors?
- Different sensors:
  - Sensor Type 1: Humidity, temp, gps (2 big, 1 small)
  - Sensor Type 2: camera
  - Sensor Type 3: TBD *Action Item:* Shelley & LuAnn identifying
- *Action Item:* LuAnn & Shelley to revise the workshop afternoon agenda
- Workshop is full! (quite a range geographically, community college teachers, previous workshop educators)
- Send out a follow up email to Educators - reminder of expectations & what ESIP will provide (including the 200 dollar stipend -- hotel information and full travel not included)
  - *Action Item:* Margaret at least to email the Puerto Rico & people traveling great distances

**Discussion of developing of a brief survey to ESIP members** (ESIP-All, slack) to identify their top-level education resource page, type(s) of resources, target constituents, etc. The goal is to provide better visibility of the education and outreach our community offers rather than a 'library' with detail of each resource.

- Can we use the ESIP summer meeting as a way to gather this data
  - Poster with big arrow that says "please complete this survey to help us make our community better"
  - Collaboration Area Posters: doing in a bit of a different way. Digital and rotating on different screens around the registration area. Create a bitly link for a google form.
- What are the 3 items of information we would want to collect?
  - Title
  - Link
  - What is this area/ resource good for?