



LARGE FACILITIES WORKSHOP – 2021 WEBINAR SERIES

April 07, 2021 / 11:00 AM EST

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The Role of Communications, Education and Public Outreach During and After COVID-19

Session Moderator: Tim Spuck
Director of Education & Public Engagement
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NATIONAL HIGH

MAGNETIC FIELD LABORATORY

FIELD LABORATORY

The National High Magnetic Field Laboratory is supported by National Science Foundation through NSF/DMR-1644779 and the State of Florida.



NATIONAL HIGH MAGNETIC FIELD LABORATORY

- CARLOS R. VILLA
 - DIRECTOR OF K-12 EDUCATION PROGRAMS



VIDEO CONTENT FILLED A GAP DURING COVID

AS COVID-19 SHUTTERED SCHOOLS, DEMAND FOR MAGLAB VIDEOS GREW:

- FROM MARCH 1, 2020 THROUGH JUNE 1, 2020:
 - 7.2 MILLION IMPRESSIONS
 - **14% HIGHER** THAN THE SAME PERIOD IN 2019
 - **24% HIGHER** THAN THE FIRST QUARTER OF 2020
 - 507,000 VIEWS
 - **13% HIGHER** THAN SAME PERIOD LAST YEAR
 - **40% HIGHER** THAN FIRST QUARTER OF 2020
 - 17.5K HOURS OF WATCH TIME
 - **9% HIGHER** THAN SAME PERIOD LAST YEAR
 - **41% HIGHER** THAN FIRST QUARTER OF 2020



NATIONAL HIGH MAGNETIC FIELD LABORATORY

AS COVID-19 CHANGED WHERE PEOPLE GET THEIR INFORMATION, DEMAND FOR MAGLAB ONLINE CONTENT GREW:

- NEARLY 50,000 PAGEVIEWS IN A ONE-WEEK PERIOD (APRIL 26-MAY 2) - OUR **HIGHEST AMOUNT OF WEEKLY WEB TRAFFIC EVER.**
- 182,000+ TOTAL PAGEVIEWS FOR APRIL 2020, **24% HIGHER** THAN APRIL 2019 AND THE **HIGHEST TRAFFIC MONTH EVER.**
- 9 OF TOP 10 PAGES WERE **MAGNET ACADEMY** (THE OTHER WAS THE HOMEPAGE!)



NEW VIRTUAL EXPERIENCES

THE COVID-19 PANDEMICS CREATED AN OPPORTUNITY FOR NEW EXPERIENCES.

- CURRENTLY OFFERED:
 - SUMMER EXPLORATION SERIES (SUBSTITUTE FOR 2020 SUMMER CAMPS)
 - VIRTUAL MENTORSHIPS (MIDDLE & HIGH SCHOOL LEVEL)
 - MAGLAB SCIENCE NIGHT ONLINE
 - VIRTUAL OPEN HOUSE
 - VIRTUAL CLASSROOM OUTREACH & TOURS
- COMING SOON:
 - RET, REU, & SUMMER CAMPS





Robin Nelson



University of Texas
at San Antonio

PURDUE UNIVERSITY
Network Communication Office
NSF Award #1612144

UNIVERSITY OF COLORADO BOULDER
CONVERGE
Social science/interdisciplinary resources
NSF Award #1841338

UC BERKELEY
SimCenter
Computational Simulation
NSF Award #1612843

UNIVERSITY OF WASHINGTON
RAPID
Post-disaster Research
NSF Award #1611820

UNIVERSITY OF TEXAS, AUSTIN
DesignSafe
Community Cyberinfrastructure
NSF Award #1520817

OREGON STATE UNIVERSITY
O.H. Hinsdale Wave
Research Laboratory
Wave Basin and Flume
NSF Award #1519679

LEHIGH UNIVERSITY
Large-Scale Multi-Directional
Hybrid Simulation Testing
NSF Award #1520765

UNIVERSITY OF TEXAS, AUSTIN
Mobile Field Shakers
NSF Award #1520808

UNIVERSITY OF FLORIDA
Wind Experimental Facility
Wind Simulation
NSF Award #1520843

UC DAVIS
Geotechnical Centrifuges
NSF Award #1520581

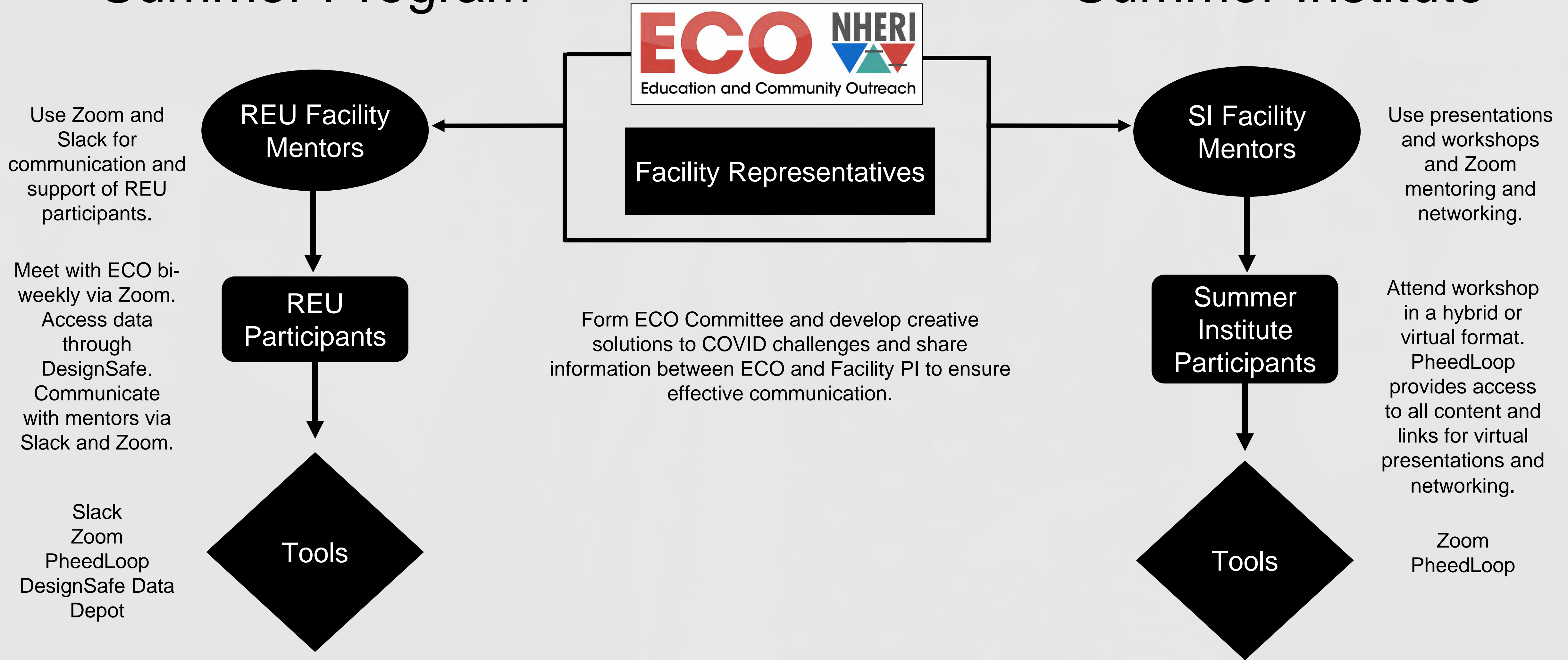
FLORIDA INTERNATIONAL UNIVERSITY
Wall of Wind International Hurricane
Research Center
Wind Simulation
NSF Award #1520853

UC SAN DIEGO
Large High-Performance Outdoor Shake Table
NSF Award #1520904



NHERI REU Summer Program

NHERI Early-Career Summer Institute



Regional Class Research Vessel (RCRV) Program



Oregon State University

- Lead Institution
- Operating Institution, #1 R/V Taani



University of Rhode Island

- Graduate School of Oceanography
- Operating Institution, #2 R/V TBD

THE
UNIVERSITY
OF RHODE ISLAND
GRADUATE SCHOOL
OF OCEANOGRAPHY

Louisiana University Marine Consortium

- University Southern Mississippi
- Operating Institution, #3 R/V Gilbert R



Mason

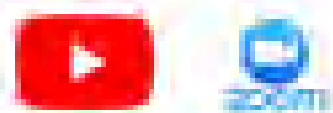
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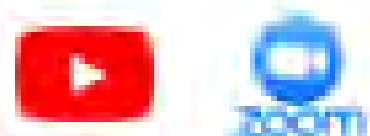


Public Awareness of RCRV + Associated Careers

Ocean Classroom Live (GSO)



“Forging the Future of Science” (77th Parallel)



Researcher Professional Development

Oregon Marine Scientist Alliance (Oregon Sea Grant)



Educator Professional Development + Student Engagement

Create Events (OSU SMILE, Oregon Sea Grant)



Teacher PD (Oregon Sea Grant, OSU SMILE)





Pre-COVID In-Person Tours

- Site open to the public 363 days of the year
 - Visitor Center
 - 23 min documentary
 - Orientation videos/exhibits
 - Self-guided walking tour
 - Guided Tours
 - 1st & 3rd Saturdays
 - Fall & Spring Open House



20,000+ visitors per year!

Self-Guided Walking Tour Path



Guided Tour Locations

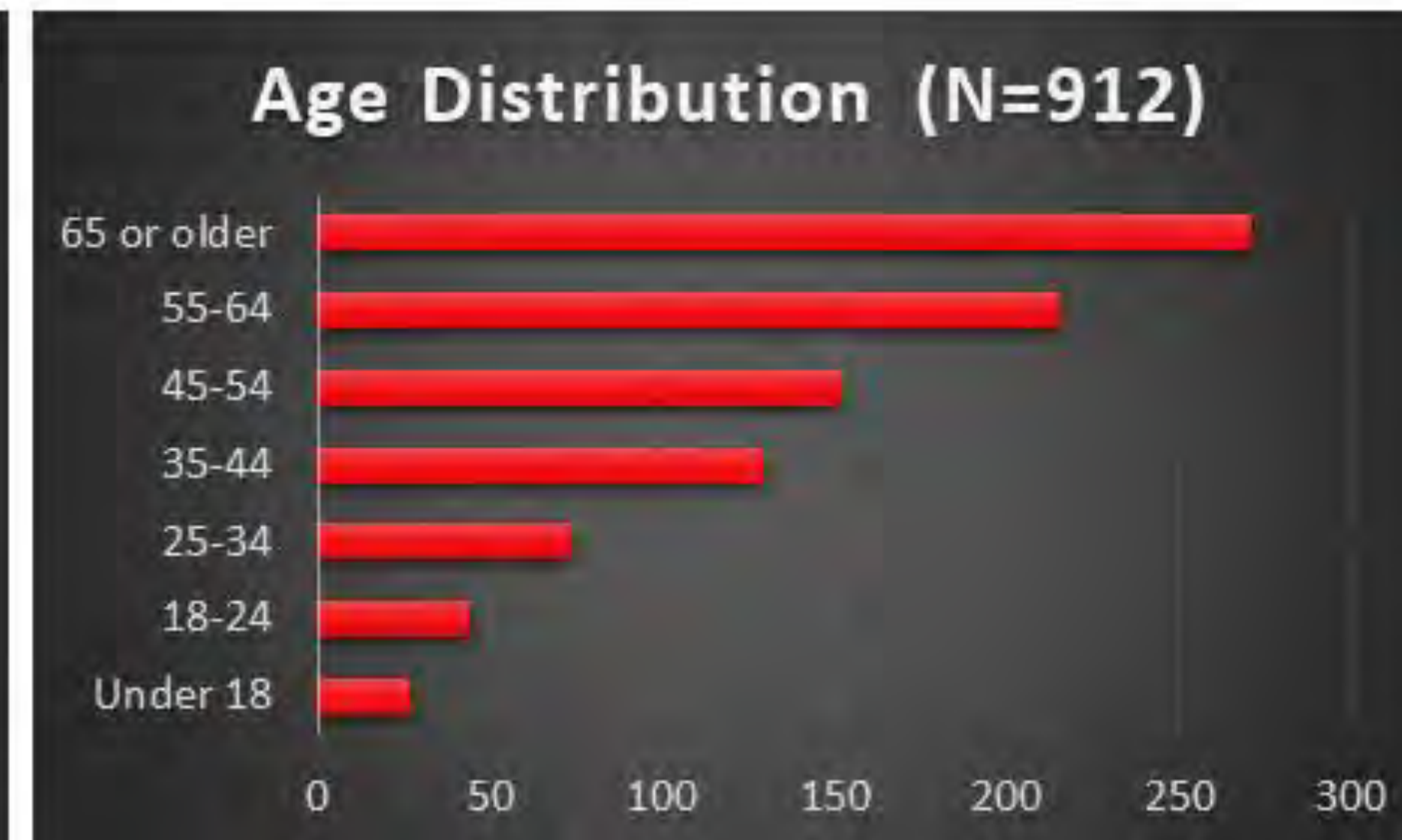
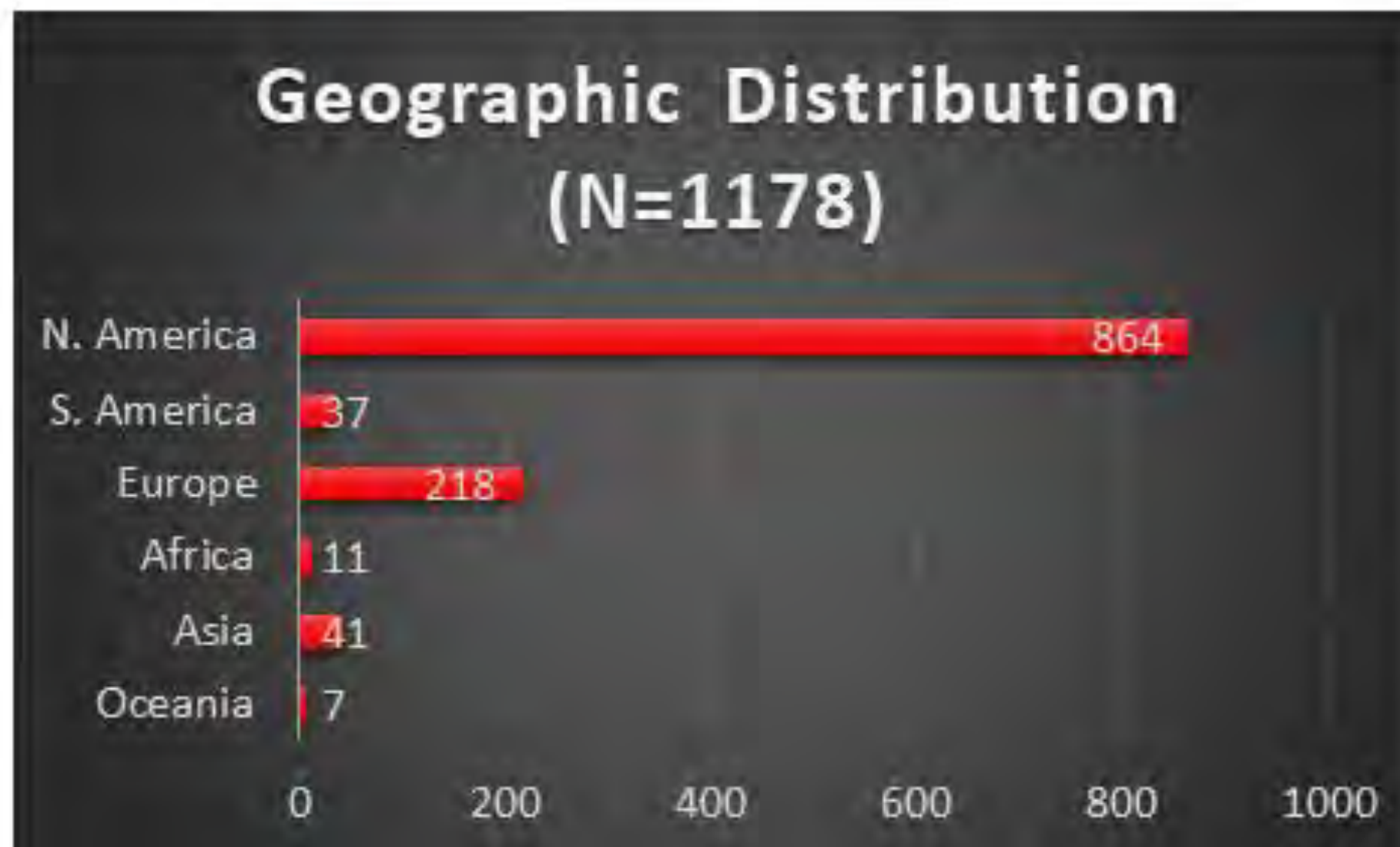


Pivot to Virtual VLA Tours

- Zoom recreation of our in-person tours
 - History and VLA basics
 - Normally held in VC auditorium, now via powerpoint
 - Augmented with videos from our VLA Explorer website feature
 - Meet the operator
 - Normally a touring of the Control Building, now inviting operators to be guest speakers
- Virtual Tours began monthly in August 2020
 - 4 STEAM Ed staff, 1 telescope operator
 - Video segments of places off limits to the public
 - LOTS of opportunities for Q&A

Pivot to Virtual VLA Tours

- 5 Virtual VLA Tours (Aug – Dec 2020)
 - Attendance: 200-1400* ppl, #Qs: ~100 avg



2500+ virtual visitors to the VLA

Expansion to Themed Virtual Tours

- 3 Themed Virtual Tours (Jan – Mar 2021)

Themed Tours	Attendance	Countries
ALMA	161	31
VLBA	173	30
ngVLA	173	26

- More guest speakers
 - Highlighting range of staff at these facilities
 - Humanizing scientific process
 - Providing expertise
- Tours averaging: 169 attendees from 29 different countries!

Lessons Learned from Virtual Tours

- Initially began as a way to serve the audience we were used to reaching
- Expanded to reach a much wider audience
 - International
 - Astronomy experts to novices
- Plan to continue virtual offerings after reopening the site
 - One per quarter

"Thanks for the effort that went into this. It was great to see the passion of the people who work on the VLA."

I think you're doing a great job in keeping the VLA somehow "accessible" to the general public under the very difficult circumstances currently given."

The Role of Communications, Education and Public Outreach During and After COVID-19

*Peter Michaud
Education and Engagement Manager
NOIRLab*

NOIRLab unifies all NSF's nighttime optical/infrared observatories, including:

- Kitt Peak National Observatory
- Cerro Tololo Inter-American Observatory
- Gemini International Observatory
- Vera C. Rubin Observatory
- Community Science & Data Center

LIVE from
NOIRLab



Globe
at Night

Journey Through the Universe
Hawai'i Island



PROJECT
ASTRO

Viaje
al universo

UNDERDARKSKIES

Star Educators

OUT OF THIS
WORLD

OBSERVATORY
CAREERS

Community
Outreach

NOIRLab

COLORS
of NATURE

TEEN
ASTRONOMY
Café

Tohono O'odham
Engagement

ASTRODAY

TEACHING
WITH
TELESCOPES