

GEO Health Community of Practice (CoP)
Quarterly Plenary Telecon
March 27, 2020

In Attendance: 45 participants

John Haynes (NASA HQ), Juli Trtanj (NOAA), Helena Chapman (NASA HQ/BAH), Sue Estes (NASA/UAH), John Balbus (NIH/NIEHS), Trisha Castranio (NIH/NIEHS), Mark Shimamoto (AGU), Laura Mulvay (NASA HQ), Shobhana Gupta (NASA HQ/ASRC), Ian Johnson (NASA HQ/Total Solutions), Brady Helms (NASA HQ/AI Solutions), Jean-Paul Vernier (NASA Langley), Ricardo Quiroga (NASA Goddard), Helen Amos (NASA Goddard/SSAI), Dorian Janney (NASA Goddard), Jennifer Wei (NASA Goddard), Sushel Unninarayan (NASA Goddard), Mindi DePaola (UCAR), Hunter Jones (NOAA), Amanda Quintana (USGCRP), Joy Shumake-Guillemot (WHO/WMO), Pablo Aguilar (PAHO), Sally Edwards (PAHO, Panama), Jerome Benveniste (ESA), Tanya Maslak (Battle Memorial Institute), Josh Colston (U. of Virginia), Ben Zaitchik (John Hopkins U.), Tatiana Loboda (U. of Maryland, College Park), Julia Gohlke (Virginia Polytechnic Institute and State University), Ashish Sharma (U. of Illinois at Urbana-Champaign), Ali Akanda (U. of Rhode Island), Lisa Conti (Florida Department of Agriculture and Consumer Services), Jorge del Rio Vera Unoosa (UN), Andreas Skouloudis (Joint Research Centre, Italy), Naledzani Mudau (African Space Agency), Didier Davignon (Meteorological Service of Canada), Anna Stewart (IAI, Uruguay), Susanna Ehlers (IAI, Uruguay), Ximena Porcasi (CONAE, Argentina), Hanieh Asghari (Islamic Azad University, Iran), James Norris (GEO), Daniel Juhn (Conservation International), Merrie Beth Neely (GEO Aqua Watch).

Summary Notes:

**Prepared by Helena Chapman (NASA HQ/BAH) and Helen Amos (NASA Goddard/SSAI)*

1. Welcome

John Haynes (NASA HQ) and **Juli Trtanj (NOAA)** opened the telecon by welcoming all participants. **John Haynes (NASA HQ)** stated that the EO4HEALTH community activity was formally recognized a new initiative for the 2020–2022 GEO Work Programme at the GEO Plenary 2019 in Canberra, Australia. He mentioned that with the support and coordination of GEO Aqua Watch (Merrie Beth Neely), EO4HEALTH and GEO Health CoP were highlighted in oral and poster presentations as part of the [Water for Life side event](#).

On behalf of **Doug Cripe (GEO Secretariat representative)**, **John Haynes (NASA HQ)** provided three GEO updates. These updates included:

- 1) The proposal submission deadline for the GEO-GEE (Google Earth Engine) license programme would be extended to April 15, 2020, due to challenging working circumstances under the COVID-19 lockdown that many countries are facing. The application form can be found on the [GEO website](#).
- 2) During the Committee on Earth Observation Satellites (CEOS) – Strategic Implementation Team (SIT), held in late March 2020, there was significant interest expressed as to how GEO could respond to the COVID-19 pandemic. As a GEO

participating organization, CEOS members work to coordinate satellite missions among national space agencies in a best-efforts manner.

- 3) Four [GEO Working Groups](#) – Capacity Development Working Group (CD-WG), Climate Change Working Group (CC-WG), Disaster Risk Reduction Working Group (DRR-WG), and Data Working Group (Data-WG) – were recently established. Individuals interested to join a Working Group should be nominated by their GEO Principal to the GEO Secretariat.

John Balbus (NIH/NIEHS) asked if GEO Health CoP should have a representative on each of these four Working Group. **John Haynes (NASA HQ)** and **Juli Trtanj (NOAA)** agreed with this recommendation, suggesting that interested GEO Health CoP members learn more about this opportunity.

Helena Chapman (NASA HQ/BAH) reminded the GEO Health CoP membership that the [website](#) has been updated to highlight activities and enhance visibility of project activities and updates of GEO Health CoP members.

2. GEO Health CoP Highlights

John Haynes (NASA HQ) provided one update from the GEO Health CoP in-person meeting at the American Geophysical Union Fall Meeting 2019 and details about the upcoming AmeriGEO Week 2020.

- 1) [American Geophysical Union Fall Meeting 2019 \(San Francisco, California\)](#): He stated that a total of 41 attendees (31 in-person, 10 virtual) attended this [in-person meeting](#), which provided an opportunity for Earth and health scientists and practitioners to describe key international projects and updates, enhance professional networks, and discuss priority focus areas that advance GEO/AGU efforts.
- 2) [AmeriGEO Week 2020 \(Aguascalientes, Mexico\)](#): He mentioned that the [AmeriGEO Week 2020](#) would be held in September 2020. He reminded participants that health was identified as a cross-cutting issue at the AmeriGEO Week 2019, held in Lima, Peru.

David Green (NASA HQ) asked if there was a possibility to propose joint sessions between health and other groups (e.g. Disasters and Sendai Framework). **John Haynes (NASA HQ)** and **Juli Trtanj (NOAA)** agreed with this recommendation to explore this opportunity when more information about AmeriGEO Week 2020 is posted.

Juli Trtanj (NOAA) provided one update on the [Global Heat Health Information Network](#), led by Joy Shumake-Guillemot (WHO/WMO). Due to the COVID-19 pandemic, the [2020 Global Forum on Heat and Health](#) will be changing its format. A shorter virtual forum on heat and health will be held from July 28-31, 2020. A series of Master Classes will then be offered throughout the year leading up to the in-person Forum in 2021. Interested members can sign up for the Global Heat Health Information Network [listserv](#).

3. Introduction to Member Project

Josh Colston (U. of Virginia) provided an update on his team's recent NIH grant, [Global Geospatial Mapping and Modeling of Household-level Covariates of Infectious Disease Transmission and Child Health](#). He described two specific aims: 1) Compile a large database of georeferenced data relating to five selected household-level covariates of infectious disease transmission; and 2) Produce and make publicly available global modeled surfaces of each covariate using standardized geostatistical methods, environmental covariates, and the outcome of aim 1. He mentioned that the deliverables would be raster datasets integrated on an online platform, and anticipated end users would include the program planners, project managers, and the research community.

4. COVID-19 Activities

John Haynes (NASA HQ) moderated a dialogue on current CoP activities and updates related to the ongoing COVID-19 pandemic. He described two highlights regarding current funding opportunities related to COVID-19 research activities.

- 1) [NASA's Rapid Response and Novel Research in Earth Science](#): Released in February 2020, this solicitation encourages the innovative use of NASA satellite data to address environmental, economic, and/or societal impacts of the COVID-19 pandemic. Proposals should describe a project with one-year duration and requesting a US\$100,000 budget.
- 2) [COVID-19 High Performance Computing Consortium Request](#): Formed in March 2020, this unique public-private consortium was spearheaded by the White House Office of Science and Technology Policy, the US Department of Energy and IBM. Formed in March 2020, this solicitation offers researchers a range of computing capabilities to accelerate scientific understanding and discovery of COVID-19 virus and related treatments and vaccine development.

In efforts to identify real-time data of the COVID-19 pandemic, GEO CoP members shared two interactive COVID-19 resources, including ESRI's [COVID-19 Maps, Resources, and Insights](#) and the Johns Hopkins University's Center for Systems Science and Engineering's [COVID-19 Global Cases](#).

Ben Zaitchik (Johns Hopkins U.) presented an overview on COVID-19 seasonality, recognizing that more research is needed to learn about environmental influences that drive COVID-19 spread.

Pablo Aguilar (PAHO) mentioned that the current focus is on clinical and epidemiologic aspects of COVID-19, rather than potential environmental factors like surface temperature and humidity. He agreed that research findings have linked environmental factors with influenza transmission, and that future research on COVID-19 spread will require a wider global lens. He urged attention to potential confounding variables as well as impacts of severe lockdowns across the globe.

Andreas Skouloudis (Joint Research Centre, Italy), in collaboration with **John Balbus (NIEHS)**, presented an overview of how the health care facilities have monitored and managed the COVID-19 pandemic in Italy. He mentioned that remote sensing data, coupled with in-situ observations for real-time processes, are essential to examine the aftermath effects. He admits that although the current priority remains medical relief, next steps will require global efforts across diverse research teams. **John Balbus (NIEHS)** mentioned that the environmental vulnerability of health care facilities and infrastructure will become important as leaders address post-outbreak hospital emergency planning.

Aaron Naeger (U. of Alabama in Huntsville) presented some satellite observations based on the impact of economic slowdown in California. He reported that the weekday averaged NO₂ maps from TROPOMI L2 product showed a reduction in tropospheric NO₂ during different stages of shutdown measures in California during March 2020.

Ali Akanda (U. of Rhode Island) shared a few images using Sentinel-5P near real-time NO₂, mapping the COVID-19 effect in New York City and Denver during March 2020.

Based on the abundance of interest and desire to further the discussion on the role of Earth Observations for COVID-19, **John Haynes (NASA HQ)** and **Juli Trtanj (NOAA)** closed the telecon and mentioned that a follow-up telecon to continue the dialogue on CoP activities related to the COVID-19 pandemic would be scheduled on Friday, April 3, 2020.

Adjourned: 12:00 PM EDT