GEO Health Community of Practice (CoP)
Telecon: Focus on COVID-19 Transmission
July 14, 2020

In Attendance: 30 participants
John Haynes (NASA HQ), Helena Chapman (NASA HQ/BAH), Sue Estes (U. of Alabama in Huntsville), Laura Judd (NASA Langley), Ann Liu (NIEHS), Trisha Castranio (NIEHS), Stan Benjamin (NOAA), Krista Hoevemeyer (USGCRP), Jonathan O'Brien (NASA ARSET), Anna Borovikov (NASA GMAO/SSAI), Cynthia Hall (NASA Earth Science Data Systems), Helen Amos (NASA Goddard/SSAI), Kim Locke (NASA Goddard), Assaf Anyamba (USRA/NASA Goddard), Pawan Gupta (NASA Marshall/USRA), Bill Frey (USAF, 14th Weather Squadron), Bryan Richards (USGS National Wildlife Health Center), Bob Chen (SEDAC/Columbia University), Ben Zaitchik (Johns Hopkins U.), William Pan (Duke U.), Karin Ardon-Dryer (Texas Tech U.), Ali Akanda (U. of Rhode Island), Augustin Vintzileos (U. of Maryland-ESSIC, College Park), Greg Carmichael (U. of Iowa), Shannon Vattikuti (Mississippi State U.), Ian Coady (UK Department for International Development), Didier Davignon (Meteorological Service of Canada), Celine Audette (Environment and Climate Change Canada), Melissa MacDonald (Environment and Climate Change, Canada), Mary Cutting.

Summary Notes:
**Prepared by Helena Chapman (NASA HQ/BAH)*

John Haynes (NASA HQ) opened the telecon by welcoming all participants. He reminded CoP members that the last weekly community teleconference was unfortunately canceled due to severe weather and loss of power to start the WebEx platform. He invited GEO members to provide brief updates on upcoming conferences and related activities. First, he encouraged CoP members to visit the NASA/ESA/JAXA COVID-19 Earth Observing Dashboard, serving as a "one-stop-shop" for end-users on environmental and socioeconomic indicators related to COVID-19 transmission. He also shared two web features by NASA (NASA, Partner Space Agencies Amass Global View of COVID-19 Impacts) and ESA (Space Agencies Join Forces to Produce Global View of COVID-19 Impacts). Second, he reminded CoP members to provide brief testimonials (e.g. paragraph) to Helena Chapman (helena.chapman@nasa.gov) about how the GEO Health CoP helped them network, communicate, leverage resources, and advance their research, especially during the COVID-19 pandemic. He mentioned that we would like to showcase these success stories during this global challenge to the GEO Secretariat.

Helena Chapman (NASA HQ/BAH) mentioned that the Global Heat Health Information Network (GHHIN) will be offering the Heat Health Masterclass Series 2020, with the final virtual class (11:00-12:30PM EDT/GMT-4) on July 21 (*Developing an Effective Heat Health Action Plan (HHAP) for your city*). She also stated that the 2nd Global Forum on Heat and Health (Theme: *Heat-healthy Cities and Workplaces*) will hold virtual dialogues with facilitated panel discussions and Q&A for audience engagement on July 28 (*Heat in the City*) and July 29 (*Heat in the Workplace*).

John Haynes (NASA HQ) mentioned that **Juli Trtanj (NOAA)** and **Helena Chapman (NASA HQ/BAH)** will be coordinating the Earth Observations for Health virtual session at the Esri USGEO Virtual Booth, as part of the 2020 Esri User Conference, on July 14, 2020 (2:30-3:30PM EDT/GMT-4). **Helena Chapman (NASA HQ/BAH)** added that they plan to showcase some of presentations from the *Earth Observations for COVID-19 Response and Recovery* session at the GEO Virtual Symposium and facilitate a Q&A session.

John Haynes (NASA HQ) reminded CoP members that the Climatological, Meteorological and Environmental Factors in the COVID-19 Pandemic: An International Virtual Symposium on Drivers, Predictability and Actionable Information will be held from August 4-6, 2020.

Stan Benjamin (NOAA) mentioned that NOAA has been updating the ensemble forecasting system, in collaboration with NASA Goddard, that aims to improve aerosol forecasts as part of global forecast measures, including smoke prediction using sat-based fire locations. He shared the Update on the NOAA FV3GFS-Chem Global Aerosol Model document.

Helen Amos (NASA Goddard/SSAI) mentioned that the Global Precipitation Measurement (GPM) mission highlights have recently featured how NASA satellite products are used to help build climate resilience in Central America. She mentioned that this work, which was conducted by the Microinsurance Catastrophe Risk Organization (MiCRO), showed how GPM IMERG was used as input to develop index-based insurance products to protect local farmers and small businesses from financial disaster. She shared several web features, including NASA Satellites Help Farmers in Central America's Dry Corridor, Building Climate Resilience with Satellite Data, and Water for Wheaties? Freshwater Resources for Agriculture - High School (Lesson Plan).

Helena Chapman (NASA HQ/BAH) mentioned that the *JAMA Network Open* paper (Temperature, humidity, and latitude analysis to estimate potential spread and seasonality of COVID-19 by Sajadi et al, 2020) was referenced in Rowena Christiansen (U. of Melbourne, Australia)'s presentation. She asked co-author **Augustin Vintzileos (U. of Maryland-ESSIC, College Park)** if he could discuss any highlights from this recent publication.

Augustin Vintzileos (U. of Maryland-ESSIC, College Park) stated that they are currently transitioning the delivery of the weekly forecast bulletin to the website. He mentioned that their research team continues to work with epidemiology models and explore the impact of environmental factors (e.g. temperature) on COVID-19 transmission. In this paper, they identified that communities with substantial COVID-19 spread were located on a narrow band (30°N to 50°N corridor) with mean temperatures (5-11°C) and low specific humidity (3-6 g/kg) and low absolute humidity (4-7 g/m^3). He stated that the next step is to start forecasting using the seasonal, weather models defined in the paper as a metric.

Didier Davignon (Meteorological Service of Canada) mentioned that if CoP members seek wildfire smoke forecast data over North America, the Government of Canada's FireWork system may be of interest. He mentioned that system is delivered as GRIB and through web mapping services.

Helena Chapman (NASA HQ/BAH) encouraged CoP members to prepare abstracts for upcoming sessions at the American Geophysical Society Fall Meeting 2020 (deadline: July 29, 2020) and American Meteorological Society Annual Meeting 2021 (deadline: August 3, 2020).

Trisha Castranio (NIEHS) shared an update that the Global Environmental Health Day, as a virtual event showcasing four seminars on impacts of climate change on human health, was held on July 1, 2020. She said that more than 900 participants attended this virtual event, and the recording can be found at this link. She also mentioned that they launched the Climate Change and Human Health literature portal at this event.

John Haynes (NASA HQ) thanked all CoP members for their continued contributions to the field and engagement in the group discussion. He stated that this telecon had provided an opportunity to share information, connect researchers, and leverage resources that can amplify current activities related to the COVID-19 response. He closed the telecon and mentioned that due to upcoming summer holidays, they plan to change the teleconference schedule from weekly to biweekly occurrences during July and August 2020.

Adjourned: 9:00 AM EDT (GMT-4)