

Title	GeoNEX: A geostationary earth observatory at NASA Earth eXchange: Earth monitoring from operational geostationary satellite systems
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Authors	Email	Last Name, First Name	Employer/Affiliation
	rama.nemani@nasa.gov	Nemani, Ramakrishna R.	NASA
	weile.wang@nasa.gov	Wang, Weile	California State University - Monterey Bay
	hirofumi.hashimoto-1@nasa.gov	Hashimoto, Hirofumi	California State University - Monterey Bay
	andrew.r.michaelis@nasa.gov	Michealis, Andrew R.	Bay Area Environmental Research Institute
	thomas.vandal@nasa.gov	Vandal, Thomas	Bay Area Environmental Research Institute
	alexei.i.lyapustin@nasa.gov	Lyapustin, Alexei	NASA Goddard
	jia.zhang@sv.cmu.edu	Zhang, Jia	Carnegie Mellon University, Pittsburg, PA
	tsengdar.j.lee@nasa.gov	Lee, Tsengdar J.	NASA
	satya.kalluri@noaa.gov	Kalluri, Satyanarayana	National Oceanic and Atmospheric Administration (NOAA)
	neurolink.sys@gmail.com	Takenaka, Hideaki	JAXA, Earth Observation Research Center, Tsukuba, Japan
	higu@faculty.chiba-u.jp	Higuchi, Atsushi	Center for Environmental Remote Sensing, Chiba University, Chiba, Japan
	ichii@chiba-u.jp	Ichii, Kazuhito	Center for Environmental Remote Sensing, Chiba University, Chiba, Japan
	lishuangfirst@gmail.com	Li, Shuang	Guiyang Education University, Guiyang, China
		Yeom, Jong-Min	Korea Aerospace Research Institute, Daejeon, Republic of Korea

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Abstract	<p>The latest generation of geostationary satellites (Himawari 8/9, GOES-16/17, FY-4, GK-2A) carries sensors that closely mimic the spatial and spectral characteristics of widely used polar-orbiting, global monitoring sensors such as MODIS and VIIRS. When combined, data from various currently operating/planned geostationary platforms provide a geo-ring of hyper-temporal (5-10 minutes), multispectral observations at spatial resolutions as high as 500 m. These high frequency observations offer exciting new possibilities for monitoring our planet, including better retrievals of geophysical variables by overcoming cloud cover, enabling studies of diurnally varying phenomena in the atmosphere, land, and the oceans, and support operational decision-making in agriculture, hydrology and disaster management. The NASA Earth Exchange (NEX) team, in collaboration with scientists from JAXA, KARI, NOAA and other international institutions, created the GeoNEX (www.nasa.gov/geonex) pipeline to integrate data from all available geostationary platforms and produce and distribute spatially, temporally, and radiometrically consistent data for the earth science community. We envision various institutions adapting the Geo component (e.g., GeoNOAA, GeoKARI, GeoChiba, GeoJAXA, GeoCMA) and customizing the pipeline and downstream products to serve the local/regional research and applied science communities.</p>
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