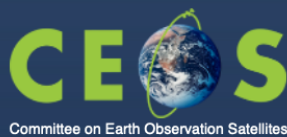


CEOS Data Deployments in the Cloud - WGISS-52



Data Deployments in the Cloud

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Organization	Data Access	Amount	Content	Cloud Service Providers	Future Plans
ESA	<ul style="list-style-type: none"> User Interfaces provided through catalogues (SX-CAT, EO-CAT), incl. opensearch interfaces Data dissemination and pixel based access (WMTS, WPS services) 	7.5 PB	Earth Observation data collection from: <ul style="list-style-type: none"> ESA Earth Explorers (GOCE, Cryosat, SMOS, Swarm, Aeolus) ESA Heritage Missions (Envisat, ERS-1, ERS-2) Third Party Missions (including Landsat 1-7, Landsat 8, ...) 	Private cloud provided through ESA contract	<ul style="list-style-type: none"> Future Earth Explorers (Earthcare, Biomass, Flex) and additional TPM) Ongoing studies to evaluate appropriate data formats (COG, ZARR) and possible migration to Object Storage and public cloud for collaborative services
JAXA	Members can up and download data. Others can download processed data.	300 TB	Disaster Monitoring Data (Daichi Bosai Web)	MS Azure	Considering the migration of other portal services to Cloud.
	Storage only	160 TB	Heritage Mission Data (MOS-1/1b, JERS-1, ADEOS, ADEOS-II)		
NASA	via the Earthdata Cloud	55.6 PB	Over 800 collections (36M granules) including popular datasets like CYGNSS and HLS https://go.nasa.gov/3aNzCEp	Amazon Web Services (AWS)	Continued migration of EOSDIS products and services. Expected to have 246.6 PB by 2025
NOAA	via the NOAA Big Data Program - all access points are free and open	13 PB (up from 6 PB in 2020)	Over 220+ collections spanning ocean, atmosphere, climate and space weather https://www.noaa.gov/organization/information-technology/list-of-big-data-program-datasets	AWS, MS Azure, Google Cloud Platform (GCP)	NESDIS is building an enterprise Common Cloud Framework (NCCF) that will handle data management, archiving and product generation