

Data Services

- CERES Syn1deg Terra Aqua Modis Edition 4A (2018/01/01~2018/03/16)
- POWER 801 Hourly T2M (1981/1/1~1981/12/31)
- MERRA 2 (MERRA2_400.tavg1_2d_slv_Nx.20190101) (2019/01/01 - 2019/12/31)
- MOPITT MOP03TM VERSION 108 Beta (2019/01/01~2020/01/31) to verify COVID-19 study
- MOPITT MOP02J VERSION 8 (2018/01/01~2018/01/02)
- SAR RTC VERSION? (2019/01/03~2019/12/27)
- Sentinel-2
- TERRA FUSION

GeoServer (GS in yellow box) links are not provided because the GeoServer is turned off to save cost. ArcGIS ImageService can provide more services than what GeoServer can provide.

CERES Syn1deg Terra Aqua Modis Edition 4A (2018/01/01~2018/03/16)

Type	Variable (s)	File Type	Proxy Type	Variable Shape	Temporal	Time Range	Spatial Res	S3 or Local Location	URL
AGS IS	all	MRF	XML	24 x 180 x 360	Hourly	2018	1 x 1 Degree	https://s3.console.aws.amazon.com/s3/buckets/sdt-data/ceres/syn1deg/terra-aqua-modis_edition4a/	https://arcgis-s-8.gisdemo.net/arcgis/rest/services/mrf_raster_proxy/cer_syn1deg_1hour_terra_aqua_modis/ImageServer
AGS IS	all	CRF	n/a	24 x 180 x 360	Hourly	2018	1 x 1 Degree	s3://sdt-crf/cer_syn1deg_1hour_terra_aqua_modis.crf	https://arcgis-s-8.gisdemo.net/arcgis/rest/services/crf/cer_syn1deg_1hour_terra_aqua_modis_s3/ImageServer
AGS IS	all	CRF	n/a	24 x 180 x 360	Hourly	2018	1 x 1 Degree	c:/tmp/crf/cer_syn1deg_1hour_terra_aqua_modis.crf	https://arcgis-s-8.gisdemo.net/arcgis/rest/services/crf/cer_syn1deg_1hour_terra_aqua_modis_local/ImageServer
AGS WMS	all	MRF	XML	24 x 180 x 360	Hourly	2018	1 x 1 Degree	https://s3.console.aws.amazon.com/s3/buckets/sdt-data/ceres/syn1deg/terra-aqua-modis_edition4a/	https://arcgis-s-8.gisdemo.net/arcgis/rest/services/mrf_raster_proxy/cer_syn1deg_1hour_terra_aqua_modis/ImageServer/WMS?request=GetCapabilities&service=WMS
AGS WCS	all	MRF	XML	24 x 180 x 360	Hourly	2018	1 x 1 Degree	https://s3.console.aws.amazon.com/s3/buckets/sdt-data/ceres/syn1deg/terra-aqua-modis_edition4a/	https://arcgis-s-8.gisdemo.net/arcgis/rest/services/mrf_raster_proxy/cer_syn1deg_1hour_terra_aqua_modis/ImageServer/WCSServer?request=GetCapabilities&service=WCS
GS WMS	init_all_sfc_sw_dn	MRF		24 x 180 x 360	Hourly	2018	1 x 1 Degree	https://s3.console.aws.amazon.com/s3/buckets/sdt-data/ceres/syn1deg/terra-aqua-modis_edition4a/init_all_sfc_sw_dn/mrf/	
GS WCS	init_all_sfc_sw_dn	MRF		24 x 180 x 360	Hourly	2018	1 x 1 Degree	https://s3.console.aws.amazon.com/s3/buckets/sdt-data/ceres/syn1deg/terra-aqua-modis_edition4a/init_all_sfc_sw_dn/mrf/	

POWER 801 Hourly T2M (1981/1/1~1981/12/31)

Type	Variable (s)	File Type	Proxy Type	Variable Shape	Temporal	Time Range	Spatial Res	S3 Location	URL
AGS IS	T2M, U/V10M, U/V50M	MRF	XML	24 x 360 x 720	Hourly	1981	.5 x .5 Degree	https://s3.console.aws.amazon.com/s3/buckets/sdt-data/power/801/hourly/tst/	https://arcgis-s-8.gisdemo.net/arcgis/rest/services/mrf_raster_proxy/power_801_hourly/ImageServer
AGS IS	T2M, U/V10M, U/V50M	CRF	n/a	24 x 360 x 720	Hourly	1981	.5 x .5 Degree	s3://sdt-crf/power_input_stdz_md.crf	https://arcgis-s-8.gisdemo.net/arcgis/rest/services/crf/power_801_hourly_list/ImageServer
AGS IS	U/V10M	CRF	n/a	24 x 360 x 720	Hourly	1981	.5 x .5 Degree	s3://sdt-crf/vector_field_magdir.crf	https://arcgis-s-8.gisdemo.net/arcgis/rest/services/crf/power_801_hourly_wind_10m/ImageServer
AGS IS	U/V50M	CRF	n/a	24 x 360 x 720	Hourly	1981	.5 x .5 Degree	s3://sdt-crf/vector_field_magdir_50m.crf	https://arcgis-s-8.gisdemo.net/arcgis/rest/services/crf/power_801_hourly_wind_50m/ImageServer
AGS WMS	T2M, U/V10M, U/V50M	MRF	XML	24 x 360 x 720	Hourly	1981	.5 x .5 Degree	https://s3.console.aws.amazon.com/s3/buckets/sdt-data/power/801/hourly/tst/t2m/mrf/	https://arcgis-s-8.gisdemo.net/arcgis/rest/services/mrf_raster_proxy/power_801_hourly/ImageServer/WMS?request=GetCapabilities&service=WMS

AGS WCS	T2M, U V10M, U V50M	MRF	XML	24 x 360 x 720	Hourly	1981	.5 x .5 Degree	https://s3.console.aws.amazon.com/s3/buckets/sdt-data/power/801/hourly/lst/t2m/mrf/	https://arcgis-s-8.gisdemo.net/arcgis/services/mrf_raster_proxy/power_801_hourly/ImageServer/WCSTServer?request=GetCapabilities&service=WCS
GS WMS	T2M, U V10M, U V50M	MRF		24 x 360 x 720	Hourly	1981	.5 x .5 Degree	https://s3.console.aws.amazon.com/s3/buckets/sdt-data/power/801/hourly/lst/t2m/mrf/	
GS WCS	T2M, U V10M, U V50M	MRF		24 x 360 x 720	Hourly	1981	.5 x .5 Degree	https://s3.console.aws.amazon.com/s3/buckets/sdt-data/power/801/hourly/lst/t2m/mrf/	

MERRA 2 (MERRA2_400.tavg1_2d_slv_Nx.20190101) (2019/01/01 - 2019/12/31)

Service Recipe	Type	Variable (s)	File Type	Proxy Type	Variable Shape	Temporal	Time Range	Spatial Res	S3 Location	URL
Service Recipe	AGS IS	All Variables in Native NetCDF	netCDF4	XML	24 x 361 x 576	Hourly	2019	.625 Degree x . 5 Degree	https://sdt-data.s3.amazonaws.com/gmao/merra2/	https://arcgis-s-8.gisdemo.net/arcgis/rest/services/nc_raster_proxy/M2T1NXSLV_Hourly_Temperature_at_2_Meter/ImageServer
	AGS IS	All Variables in Native NetCDF	CRF		24 x 361 x 576	Hourly	2019	.625 Degree x . 5 Degree	s3://m21nxs1v2md-cr/m21nxs1v2md.crf	https://arcgis-s-8.gisdemo.net/arcgis/rest/services/crf/M2T1NXSLV_Hourly_Temperature_at_2_Meter_CRF_on_S3/ImageServer

MOPITT MOP03TM VERSION 108 Beta (2019/01/01–2020/01/31) to verify COVID-19 study

Service Recipe	Type	Variable (s)	File Type	Proxy Type	Variable Shape	Temporal	Time Range	Spatial Res	S3 Location	URL
Create 1 subsetting netCDF4 / month	AGS IS	RetrievedCOTotalColumnDay	netCDF4	vsis3/.nc	180 x 360	Monthly	2018	1x1 Degree	s3://mop03tm-008/	https://arcgis-s-8.gisdemo.net/arcgis/rest/services/nc_raster_proxy/mop03tm_108_beta/ImageServer
	AGS WMS	RetrievedCOTotalColumnDay	netCDF4	vsis3/.nc	180 x 360	Monthly	2018	1x1 Degree	s3://mop03tm-008/	https://arcgis-s-8.gisdemo.net/arcgis/services/nc_raster_proxy/mop03tm_108_beta/ImageServer/WMServer?request=GetCapabilities&service=WMS
	AGS WCS	RetrievedCOTotalColumnDay	netCDF4	vsis3/.nc	180 x 360	Monthly	2018	1x1 Degree	s3://mop03tm-008/	https://arcgis-s-8.gisdemo.net/arcgis/services/nc_raster_proxy/mop03tm_108_beta/ImageServer/WCSTServer?request=GetCapabilities&service=WCS
	GS WMS									
	GS WCS									

MOPITT MOP02J VERSION 8 (2018/01/01–2018/01/02)

Service Recipe	Type	Variable (s)	File Type	Proxy Type	File Shape	Temporal	Time Range	Spatial Res	S3 Location	URL
Create 1 subsetting & resampled netCDF4 / day	AGS IS	RetrievedSurfaceTemperature	netCDF4	vsis3/.nc	180 x 360	Daily	2018	1x1 Degree	s3://mop02j-008/	https://arcgis-s-8.gisdemo.net/arcgis/rest/services/nc_raster_proxy/sdt_db_sdt_user_mop02j_input/ImageServer
	AGS WMS	RetrievedSurfaceTemperature	netCDF4	vsis3/.nc	180 x 360	Daily	2018	1x1 Degree	s3://mop02j-008/	https://arcgis-s-8.gisdemo.net/arcgis/services/nc_raster_proxy/sdt_db_sdt_user_mop02j_input/ImageServer/WMServer?request=GetCapabilities&service=WMS
	AGS WCS	RetrievedSurfaceTemperature	netCDF4	vsis3/.nc	180 x 360	Daily	2018	1x1 Degree	s3://mop02j-008/	https://arcgis-s-8.gisdemo.net/arcgis/services/nc_raster_proxy/sdt_db_sdt_user_mop02j_input/ImageServer/WCSTServer?request=GetCapabilities&service=WCS

	GS WMS								
	GS WCS								

SAR RTC VERSION? (2019/01/03–2019/12/27)

Type	Variable (s)	File Type	Proxy Type	Variable Shape	Temporal	Time Range	Spatial Res	S3 Location	URL
AGS IS	VH, VV	CoG	vszip /vsis3		25 seconds & weekly	1/3 /2019–12 /27/2019		s3://hyp3-image-server-test/	https://arcgis-s-8.gisdemo.net/arcgis/rest/services/cog_raster_proxy/sdt_db_sdt_user_sarrtc/ImageServer
AGS WMS	VH, VV	CoG	vszip /vsis3		25 seconds & weekly	1/3 /2019–12 /27/2019		s3://hyp3-image-server-test/	https://arcgis-s-8.gisdemo.net/arcgis/services/cog_raster_proxy/sdt_db_sdt_user_sarrtc/ImageServer/WMServer?request=GetCapabilities&service=WMS
AGS WCS	VH, VV	CoG	vszip /vsis3		25 seconds & weekly	1/3 /2019–12 /27/2019		s3://hyp3-image-server-test/	https://arcgis-s-8.gisdemo.net/arcgis/services/cog_raster_proxy/sdt_db_sdt_user_sarrtc/ImageServer/WCServer?request=GetCapabilities&service=WCS
GS WMS									
GS WCS									

Sentinel-2

Type	Variable (s)	File Type	Proxy Type	Variable Shape	Temporal	Time Range	Spatial Res	S3 Location	URL
AGS IS	Aerosol Optical Thickness (AOT)	CoG	vsis3	1830x1830	random 99 samples from input table in minutes	10/11/2020 07:47:00PM–10/13/2020 10:06:00AM	Tile	s3://sentinel-cogs/sentinel-s2-l2a-cogs/	https://arcgis-s-8.gisdemo.net/arcgis/rest/services/test/SENTINEL2_DAILY_COG/ImageServer

TERRA FUSION

Type	Variable (s)	File Type	Proxy Type	Variable Shape	Temporal	Time Range	Spatial Res	S3 Location	URL
AGS IS	MODIS EV_1KM_Emissivity	subset & merged netCDF-4	vsis3	2 x 180 x 360	5 min.	11/16/2001 01:10:00–01:15:00	1x1 Degree	s3://sdt-data/TF_merged.nc	https://arcgis-s-8.gisdemo.net/arcgis/rest/services/TERRA_FUSION_MODIS_VSIS3/ImageServer

Other Variables Available:

Collection	Variable	File Type	S3
CERES Syn1deg Terra Aqua Modis Edition 4A	all_sfc_sw_diff	MRF	https://s3.console.aws.amazon.com/s3/buckets/sdt-data/ceres/syn1deg/terra-aqua-modis_edition4a/all_sfc_sw_diff/mrf/
CERES Syn1deg Terra Aqua Modis Edition 4A	all_sfc_sw_dir	MRF	https://s3.console.aws.amazon.com/s3/buckets/sdt-data/ceres/syn1deg/terra-aqua-modis_edition4a/all_sfc_sw_dir/mrf/
CERES Syn1deg Terra Aqua Modis Edition 4A	clr_sfc_sw_diff	MRF	https://s3.console.aws.amazon.com/s3/buckets/sdt-data/ceres/syn1deg/terra-aqua-modis_edition4a/clr_sfc_sw_diff/mrf/
CERES Syn1deg Terra Aqua Modis Edition 4A	clr_sfc_sw_dir	MRF	https://s3.console.aws.amazon.com/s3/buckets/sdt-data/ceres/syn1deg/terra-aqua-modis_edition4a/clr_sfc_sw_dir/mrf/
CERES Syn1deg Terra Aqua Modis Edition 4A	init_clr_sfc_sw_dn	MRF	https://s3.console.aws.amazon.com/s3/buckets/sdt-data/ceres/syn1deg/terra-aqua-modis_edition4a/init_clr_sfc_sw_dn/mrf/