

Directory/file naming convention for ASGS rasters in AWS S3  
Version 0.1, 24 Feb 2021

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## Overview:

Bucket: hazus

Access:

- Python via boto3:
- Shell via aws cli:
  - Get a listing of the entire bucket
    - `aws s3 ls --recursive s3://hazus`

```
2021-02-24 13:55:59      48427
2020/Synoptic/.../20180101_00Z_zetamax_ec95d_ERA5_None_reanalysis_bob_hatteras_
None_1000.-00785.000355.100.60.tiff
```

```
2021-02-24 15:05:15  480048379
2020/Tropical/al12/28/GAHM/al12_28_inunmax_lav20a_GAHM_Swan_nhcConsensus_jgf_qb
c_None_50.-00915.000310.10000.6000.tiff
```

```
2021-02-24 15:13:01  480048379
2020/Tropical/al12/29/GAHM/al12_29_inunmax_lav20a_GAHM_Swan_nhcConsensus_jgf_qb
c_None_50.-00915.000310.10000.6000.tiff
```

```
2021-02-24 15:25:12  480048379
2020/Tropical/al12/30/GAHM/al12_30_inunmax_lav20a_GAHM_Swan_nhcConsensus_jgf_qb
c_None_50.-00915.000310.10000.6000.tiff
```

```
2021-02-04 11:59:56      32355 index.html
```

- Download the index.html file
  - `aws s3 cp s3://hazus/index.html index.html`

## Bucket directory structure:

<Year>/<WeatherType>/<DateTime>/<Advisory>/<WindModel>

where:

<Year>                                      Current calendar year  
<WeatherType>                              Tropical | Synoptic

- Separates event-specific, NHC-triggered simulations from NCEP- or other operational center gridded, synoptic forcings published on the 00, 06, 12, 18Z cycles.

<DateTime>                                      NHC Storm number | YYYYMMDD

- For Tropical, the NHC basin/storm number, e.g., al01.
- For Synoptic, the YYYYMMDD initialization date

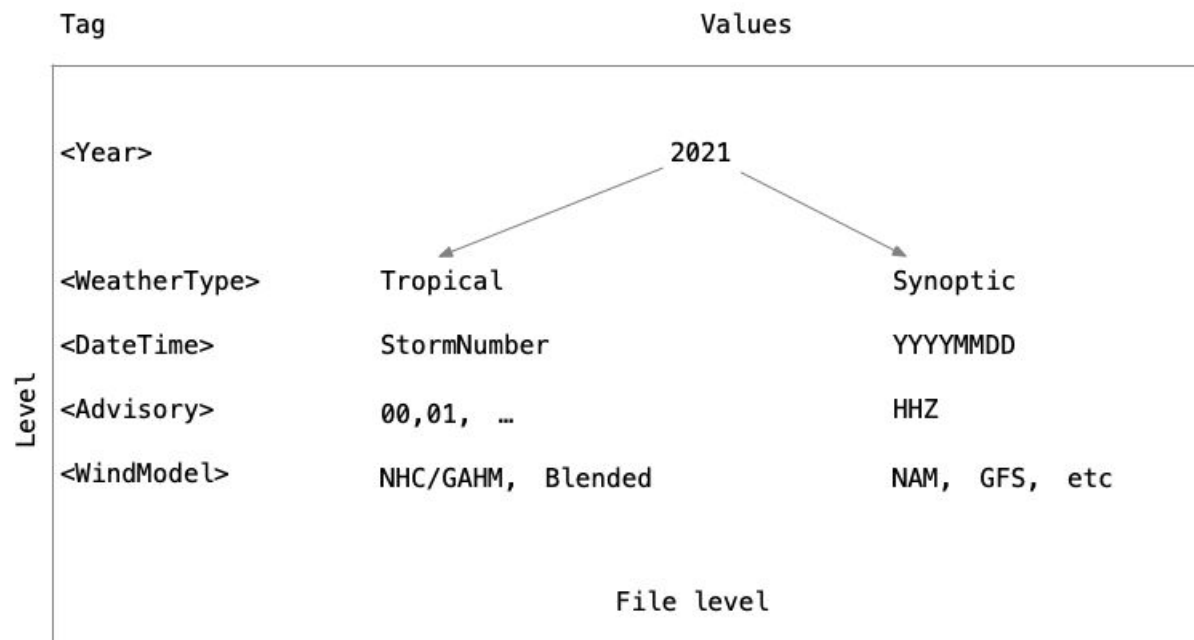
<Advisory>                                      NHC advisory number | HHZ

- For Tropical, the NHC advisory number. Post-event hindcasts will be placed in the 00 subdirectory
- For Synoptic, the initialization cycle time in UTC: 00Z, 06Z, 12Z, 18Z

<WindModel>                                      NHC/GAHM, Blended | NAM, GFS, ...

- For Tropical, the wind model used, such as:
  - the ADCIRC GAHM vortex model with the NHC forecast advisory as input
  - A TBD hybrid wind product that (eg) blends the GAHM vortex model with the NCEP NAM synoptic-scale meteorology
  - HWRF or other tropical cyclone models run to represent the particular tropical storm
- For Synoptic, the wind model used, such as:
  - NAM, GFS, etc

Schematic of bucketk/resource naming.



### S3 Product ID:

DateTime\_Advisory\_VarName\_GridNameAbbrev\_WindModel\_  
WaveModel\_EnsName\_Operator\_Machine\_Other\_RasterParams.tiff

Tag	Explanation/examples
<DateTime>	see above
<Advisory>	see above
<VarName>	ADCIRC variable mapped to raster. inun_max, zeta_max, etc...
<GridNameAbbrev>	abbreviated ADCIRC grid name for the simulation
<WindModel>	NHC/GAHM, Blended   NaM, GFS
<WaveModel>	Wave model used (Swan, Stwave, WW3) or None
<EnsName>	Ensemble member name, examples: <ul style="list-style-type: none"> <li>• Tropical: nhcForecast, Right10, etc...</li> <li>• Synoptic: namforecast</li> </ul>

<Operator>	ASGS operator initials. Eg, bde, bob, jgf, ...
<Machine>	HPC resource name/abbreviation: hatteras, stampede2, queenbee, frontera, etc
<Other>	Other descriptives, default=None
<RasterParams>	res.ullo.ulla.nx.ny where <ul style="list-style-type: none"> <li>• res = resolution in meters</li> <li>• ullo, ulla = upper left longitude, latitude of bounding box, in tenths of degrees</li> <li>• nx, ny = number of cells in lon, lat directions</li> <li>• format = "%d.%06d.%06d.%d.%d"</li> </ul>

Example s3 product id =

al19\_18\_inunmax\_NGOMv19b\_GAHM\_Swan\_nhcConsensus\_bde\_frontera\_None\_\n50.-00915.000310.10000.6000.tiff

RasterParams = 50.-00915.000310.10000.6000 meaning

res = 50 m

ullo = -91.5 deg

Ulla = 31.0

nx = 10000

ny = 6000