

Giving Metadata a Title – File 3

Title:

Metadata:

- Identification_Information
- Data_Quality_Information
- Spatial_Data_Organization_Information
- Spatial_Reference_Information
- Entity_and_Attribute_Information
- Distribution_Information
- Metadata_Reference_Information

Identification_Information:

Citation:

Citation_Information:

Originator: National Ocean and Atmosphere Administration/ Coastal Services Center/ Coastal Remote Sensing Program

Publication_Date: 19991022

Title:

Geospatial_Data_Presentation_Form: remote-sensing image

Publication_Information:

Publication_Place: Charleston, South Carolina, USA

Publisher: NOAA/CSC

Online_Linkage: <http://www.csc.noaa.gov>

Description:

Abstract: Satellite imagery from NOAA polar orbiter environmental satellites has been converted to several products. Sea surface temperature (SST) has been calculated using a multichannel split window algorithm or a non linear split window algorithm on the thermal channels (MCSST and NLSST algorithms).

The percent reflectance in the red (a proxy for turbidity and suspended sediments) has been calculated using channels 1 and 2, with corrections for atmospheric aerosols and Rayleigh radiance and with calibrations based on the Pathfinder program to remove variation among satellites. The AVHRR reflectance algorithm was developed by Richard Stumpf. A complete description of the AVHRR water reflectance derivation can be found in Stumpf and Pennock (1989) and Stumpf and Frayer (1997; see bibliography).

For near real-time reflectance and sea surface temperature imagery, visit the NOAA Coastal Services Center, Coastal Remote Sensing homepage (<http://www.csc.noaa.gov/crs/composite>) or the USGS eastern Gulf of Mexico homepage (http://coastal.er.usgs.gov/east_gulf/)

Purpose: All products provide a synoptic view of northern Gulf of Mexico waters. They may be used for a variety of purposes, including determination of the location of thermal fronts and strong currents (with SST), or locating sediment and river plumes (with percent reflectance).

Supplemental_Information: These images were created with the USGS/NOAA program AVHRRMAP8.

A scene specific image offset was subtracted from each daily reflectance image to compensate for residual drift in satellite calibration and individual scene reflectance deviations. The offset for an

image was determined by averaging scene reflectance values from up to 87 locations (depending on cloud cover) in the offshore Loop Current waters. These locations were in areas deeper than 200 m. Reflectance in these clear water regions should always be close to zero. Approximately 4 percent of the images had a offset that was derived in shelf break waters (~200 m depth) due to cloud cover in the offshore locations. The final offset was taken as the average offset minus 1 standard deviation.

Filenames have the formats such as gYYMMDD_HH.ref.gif or gYYMMDD_HH.sst.tif where YY = year, MM = month, DD = day of month, HH = local standard time; '.ref' indicates a reflectance product while '.sst' indicates a sea surface temperature product; '.gif' indicates GIF image format while '.tif' indicates GeoTIFF image format.

For the GeoTIFF image format, clouds have been burned to DN value 255. See 'Entity_and_Attribute_Overview' on how to convert the DN to percent reflectance or SST. For the GIF image format clouds are grayscaled.

Time_Period_of_Content:

Time_Period_Information:

Range_of_Dates/Times:

Beginning_Date: 19850707

Ending_Date: 19990531

Currentness_Reference: source imagery date

Status:

Progress: complete

Maintenance_and_Update_Frequency: None planned

Spatial_Domain:

Bounding_Coordinates:

West_Bounding_Coordinate: 95.72151 W

East_Bounding_Coordinate: 81.77398 W

North_Bounding_Coordinate: 30.96591 N

South_Bounding_Coordinate: 25.71651 N

Keywords:

Theme:

Theme_Keyword_Thesaurus: none

Theme_Keyword: AVHRR

Theme_Keyword: SST

Theme_Keyword: water clarity

Theme_Keyword: turbidity

Theme_Keyword: water reflectance

Theme_Keyword: sea surface temperature

Theme_Keyword: bottom albedo

Theme_Keyword: sediment transport

Theme_Keyword: river plume

Theme_Keyword_Thesaurus: GCMD

Theme_Keyword: EARTH SCIENCE > BIOSPHERE > Aquatic Habitat > Coastal Habitat

Theme_Keyword: EARTH SCIENCE > BIOSPHERE > Water Quality > Turbidity

Theme_Keyword: EARTH SCIENCE > BIOSPHERE > Water Quality > Water Temperature

Theme_Keyword: EARTH SCIENCE > OCEANS > Ocean Optics > Turbidity

Place:

Place_Keyword_Thesaurus: none

Place_Keyword: United States Coast

Place_Keyword: Northern Gulf of Mexico

Place_Keyword: Mississippi River