

Version 12.0 (October 29, 2021)

The NASA Global Change Master Directory (GCMD) staff is pleased to announce the release of the GCMD keywords version 12.0. Version 12.0 of the keywords consists of new and revised Ocean keywords to more closely align with the [NOAA Technology, Planning, and Integration for Observation \(TPIO\)](#) keywords and based on a community review conducted through [NASA's Earth Science Data and Information Systems \(ESDIS\) Standards Office \(ESO\)](#). Based on the review, there were 61 new keywords and 8 revised keywords. The revised keyword paths included moving 'OCEAN SALINITY BUDGET' to be under 'OCEAN SALINITY'. Since there were no collection records with these keywords, there is no user impact. 5 additional new keywords were added based on requests from the keyword community.

Please find below a table of the keywords. All keywords are new except where noted as "Updated". Please post any questions about this release to the [GCMD Keyword Forum](#). The keywords help facilitate the classification and discovery of Earth Science data by providing a rich vocabulary for characterizing the data. The GCMD keywords are used by hundreds of data providers worldwide for categorizing the ~33,000 records stored in the [Common Metadata Repository](#).

For more information about the keywords and how to access them, please visit the [Keyword Landing Page](#). Questions about the keywords can be submitted to support@earthdata.nasa.gov or directed to Valerie Dixon at valerie.dixon@nasa.gov.

Ocean Keywords added from NOAA-TPIO Keyword Review

Keyword Type	Follow links to view Keyword details in the GCMD Keyword Viewer
Science Keyword	Oceans > Hydrography
Science Keyword	Oceans > Coastal Processes > Shorelines > Shoreline Mapping
Science Keyword	Oceans > Coastal Processes > Coral Reefs > Coral Reef Assessment
Science Keyword	Oceans > Coastal Processes > Coral Reefs > Coral Reef Extent
Science Keyword	Oceans > Coastal Processes > Bottom Cover Type
Science Keyword	Oceans > Marine Environment Monitoring > Marine Surface Elements
Science Keyword	Oceans > Marine Environment Monitoring > Marine Surface Elements > Marine Vessels
Science Keyword	Oceans > Marine Environment Monitoring > Marine Surface Elements > Marine Surface Debris
Science Keyword	Oceans > Marine Environment Monitoring > Marine Submerged Debris
Science Keyword	Oceans > Marine Environment Monitoring > Marine Submerged Debris > Enforcement
Science Keyword	Oceans > Ocean Acoustics > Ambient Noise > Biological Ambient Noise
Science Keyword	Oceans > Ocean Acoustics > Ambient Noise > Physical Ambient Noise
Science Keyword	Oceans > Ocean Acoustics > Ambient Noise > Total Ambient Noise
Science Keyword	Oceans > Ocean Chemistry > Nutrients > Nutrient Profiles
Science Keyword	Oceans > Ocean Chemistry > Nutrients > Surface Nutrients
Science Keyword	Oceans > Ocean Chemistry > Organic Matter > Colored Dissolved Organic Matter
Science Keyword	Oceans > Ocean Chemistry > Carbon Dioxide > Carbon Dioxide Partial Pressure

Additional Keywords added from Keyword Community

Keyword Type	Follow links to view Keyword details in the GCMD Keyword Viewer
Instrument	MXGS > Modular X and Gamma Ray Instrument
Instrument	MMIA > Modular Multi-Imaging Assemble
Related URL Type	VisualizationURL > Color Map > GITC
Related URL Type	VisualizationURL > Color Map > Harmony GDAL
Related URL Type	VisualizationURL > Color Map > Giovanni

Science Keyword	Oceans > Ocean Circulation > Ocean Currents > Subsurface Currents
Science Keyword	Oceans > Ocean Circulation > Ocean Currents > Current Profiles
Science Keyword	Oceans > Ocean Circulation > Ocean Currents > Surface Currents
Science Keyword	Oceans > Ocean Circulation > Ocean Currents > Speed Profiles
Science Keyword	Oceans > Ocean Circulation > Eddies > Submesoscale Eddies
Science Keyword	Oceans > Ocean Circulation > Eddies > Mesoscale Eddies
Science Keyword	Oceans > Ocean Circulation > Subduction
Science Keyword	Oceans > Ocean Circulation > Vorticity > Relative Vorticity
Science Keyword	Oceans > Ocean Circulation > Vorticity > Potential Vorticity
Science Keyword	Oceans > Ocean Circulation > Ocean Currents > Surface Speed
Science Keyword	Oceans > Ocean Optics > Chlorophyll
Science Keyword	Oceans > Ocean Optics > Chlorophyll > Chlorophyll Concentration
Science Keyword	Oceans > Ocean Temperature > Ocean Temperature Profiles
Science Keyword	Oceans > Ocean Temperature > Ocean Barrier Layers
Science Keyword	Oceans > Ocean Waves > Swells > Swell Direction
Science Keyword	Oceans > Ocean Waves > Swells > Swell Height
Science Keyword	Oceans > Ocean Waves > Swells > Swell Period
Science Keyword	Oceans > Ocean Waves > Wave Direction
Science Keyword	Oceans > Ocean Waves > Wave Speed
Science Keyword	Oceans > Ocean Winds > Surface Winds > Wind Direction
Science Keyword	Oceans > Ocean Winds > Surface Winds > Wind Speed
Science Keyword	Oceans > Salinity/Density > Ocean Salinity
Science Keyword	Oceans > Salinity/Density > Ocean Salinity > Absolute Salinity
Science Keyword	Oceans > Salinity/Density > Ocean Salinity > Practical Salinity
Science Keyword	Oceans > Salinity/Density > Ocean Salinity > Ocean Salinity Profiles
Science Keyword	Oceans > Salinity/Density > Ocean Salinity > Ocean Surface Salinity
Science Keyword	Oceans > Salinity/Density > Conductivity > Conductivity Profiles

Science Keyword	Oceans > Salinity/Density > Conductivity > Surface Conductivity
Science Keyword	Oceans > Sea Ice > Sea Ice Topography
Science Keyword	Oceans > Sea Surface Topography > Sea Level
Science Keyword	Oceans > Sea Surface Topography > Sea Level > Sea Level Anomaly
Science Keyword	Oceans > Sea Surface Topography > Sea Level > Mean Sea Level
Science Keyword	Oceans > Sea Surface Topography > Dynamic Topography
Science Keyword	Oceans > Sea Surface Topography > Dynamic Topography > Absolute Dynamic Topography
Science Keyword	Oceans > Sea Ice > Sea Surface Topography > Dynamic Topography > Mean Dynamic Topography
Science Keyword	Oceans > Sea Surface Topography > Mean Sea Surface
Science Keyword	Oceans > Sea Ice > Sea Ice Motion > Sea Ice Direction
Science Keyword	Oceans > Sea Ice > Sea Ice Motion > Sea Ice Speed
Science Keyword	Oceans > Sea Ice > Sea Ice Origin
Science Keyword	Oceans > Water Quality > Harmful Algal Bloom (HABs)
Science Keyword	Oceans > Water Quality > Harmful Algal Bloom (HABs) > Cell Concentration
Science Keyword	Oceans > Water Quality > Harmful Algal Bloom (HABs) > Toxin Concentration
Science Keyword	Oceans > Water Quality > Sea Surface Contaminants
Science Keyword	Oceans > Water Quality > Sea Surface Contaminants > Microplastic Concentration
(Update) Science Keyword	Oceans > Salinity/Density > Ocean Salinity > Ocean Salinity Budget
(Update) Science Keyword	Oceans > Salinity/Density > Ocean Salinity > Ocean Salinity Budget > Advection
(Update) Science Keyword	Oceans > Salinity/Density > Ocean Salinity > Ocean Salinity Budget > Diffusion
(Update) Science Keyword	Oceans > Salinity/Density > Ocean Salinity > Ocean Salinity Budget > Evaporation
(Update) Science Keyword	Oceans > Salinity/Density > Ocean Salinity > Ocean Salinity Budget > Ice Growth/Melt
(Update) Science Keyword	Oceans > Salinity/Density > Ocean Salinity > Ocean Salinity Budget > Precipitation
(Update) Science Keyword	Oceans > Salinity/Density > Ocean Salinity > Ocean Salinity Budget > Runoff

(Update)
Science
Keyword

Oceans > Salinity/Density > Ocean Salinity >Ocean
Salinity Budget > Snow Melt