Glider Guidance System (GGS) Configuration Guide

This guide provides details on configuring your GGS mission using the provided .json file. Each section of the configuration file is detailed below.

MISSION Section

This section outlines general settings for the mission.

- **mission_name**: (String) The name of the mission.
- **target_date**: (String) The target date for the mission data. Use `null` for the current date and time, or specify a date in the format `"YYYY-MM-DD HH:MM:SS"`.
- **max_depth**: (Integer) The maximum depth for the mission in meters.
- **extent**: (Array of Arrays) Geographic bounding box for the mission, specified as `[[Min Lat, Min Lon], [Max Lat, Max Lon]]`.
- **GPS_coords**: (Array of Arrays) Specific GPS coordinates of interest, specified as `[[Lat 1, Lon 1], [Lat 2, Lon 2], ...]`. Use `null` for None.
- **glider_id**: (String) The ERDDAP glider ID to track. Use `null` for None.

MODEL Section

This section configures the ocean model data settings.

- **single_datetime**: (Boolean) Set to `true` to process a single date-time, `false` otherwise.
- **enable_rtofs**: (Boolean) Set to `true` to enable the RTOFS model, `false` to disable.
- **enable_cmems**: (Boolean) Set to `true` to enable the CMEMS model, `false` to disable.
- **enable_gofs**: (Boolean) Set to `true` to enable the GOFS model, `false` to disable.
- **save_model_data**: (Boolean) Set to `true` to save acquired model data, `false` otherwise.
- **save_depth_average**: (Boolean) Set to `true` to save computed depth-average data, `false` otherwise.
- **save_bin_average**: (Boolean) Set to `true` to save computed bin-average data, `false` otherwise.
- **chunk**: (Boolean) Set to `true` to enable data chunking for performance, `false` otherwise.

PLOT Section

This section specifies visualization settings.

- **latitude_qc**: (Float) Latitude for quality control plotting.
- **longitude_qc**: (Float) Longitude for quality control plotting.
- **density**: (Integer) Density of the streamplot.
- **mag1** - **mag5**: (Float) Thresholds for magnitude levels in the plot.
- **tolerance**: (Float) Advantage zone tolerance in degrees.
- **show_gliders**: (Boolean) Set to `true` to show gliders on the plot, `false` otherwise.
- **show_route**: (Boolean) Set to `true` to show the glider route, `false` otherwise.
- **show_eez**: (Boolean) Set to `true` to show Exclusive Economic Zones (EEZ), `false` otherwise.
- **show_qc**: (Boolean) Set to `true` to show quality control markers, `false` otherwise.
- **manual_extent**: (Array of Arrays) Manual specification of plot extent, specified as `[[Min Lat, Min Lon], [Max Lat, Max Lon]]`. Use `null` for automatic.

DATA Section

This section defines paths to data resources used by GGS.

- **bathymetry_path**: (String) Path to the bathymetry data file.
- **eez_path**: (String) Path to the Exclusive Economic Zones (EEZ) shapefile.
- **reprocess**: (Boolean) Commands the reprocessing of netCDF files in the local '/data/reprocess' folder.
