Paper for consideration by NIPWG

S-122 Data Sample

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Executive Summary:	Describes an updated GML data sample for S-122 (Marine Protected Areas), incorporating recent changes to both the S-122 and S-101 models.
Related Documents:	--
Related Projects:	(1) S-122; (2) S-101

1   Introduction/Background

Since the last GML data samples for S-122 were provided to SNPWG, there have been multiple changes to the S-122 and S-101 data models and application schemas. Context features for S-122 have also been defined. An updated sample is therefore provided to the NIPWG.

2   Analysis/Discussion

2.1   Updates to the model, GML schemas, and dataset

GML data samples for S-122 (MPA) were last provided to SNPWG shortly after SNPWG 15. Since then the draft Edition 2.0.0 of Edition 2.0.0 has been updated and there have also been changes to various feature and information types and in both S-122 and S-101 (ENC). The significant changes to the application schemas are:

- The modelling of text information was revised by both TSMAD and SNPWG.

- S-100 GML profile was used for datasets.

- SNPWG's models of pictorial information and source information were introduced.

- **Sea Area** was removed from the model and **Marine Service** renamed as **Traffic Control Service.**

- Addition of association and role names to the application schema.

The SNPWG chair and members have also engaged in discussions with TSMAD on harmonizing the NPUBS and ENC models, since there are model fragments which are in common between S-101 and S-122, and these are expected to be common to many product specifications. These discussions are ongoing.

The current UML diagrams for the S-122 application schema are online at the SNPWG/NIPWG Wiki.

The S-122 GML schemas were revised to conform to the updated S-100 GML profile and S-122 application schema.

The "North American Right Whales" protection area dataset was updated to use the S-100 GML profile and the revised GML schemas. The links to the online U.S. Code of Federal Regulations also had to be updated since that site was reorganized after the previous sample dataset was prepared.

BSH supplied background context data by extracting and combining skin-of-the-earth features, coverage, and selected other features from NOAA ENCs.

The geometry of some features in the dataset was updated with more accurate geometry, also obtained from NOAA sources. For some features, geometry had to be guessed or constructed from other objects, since precise and up-to-date coordinates were not defined in the sources accessed.

2.2   Observations

Business rules for deciding when to depend on Internet links for information will be needed, and approaches to guarantee availability or provide backup sources may be required.

Geometry for NPUBS features remains a potentially labour-intensive issue unless usable geometry can be identified from up-to-date, reliable, and consistent data sources.

There are some practical inconsistencies between parts of the S-100 spatial model and off-the-shelf tools, even though some of them are theoretically consistent with ISO standards.

3   Actions Requested

The NIPWG is invited to note this paper.