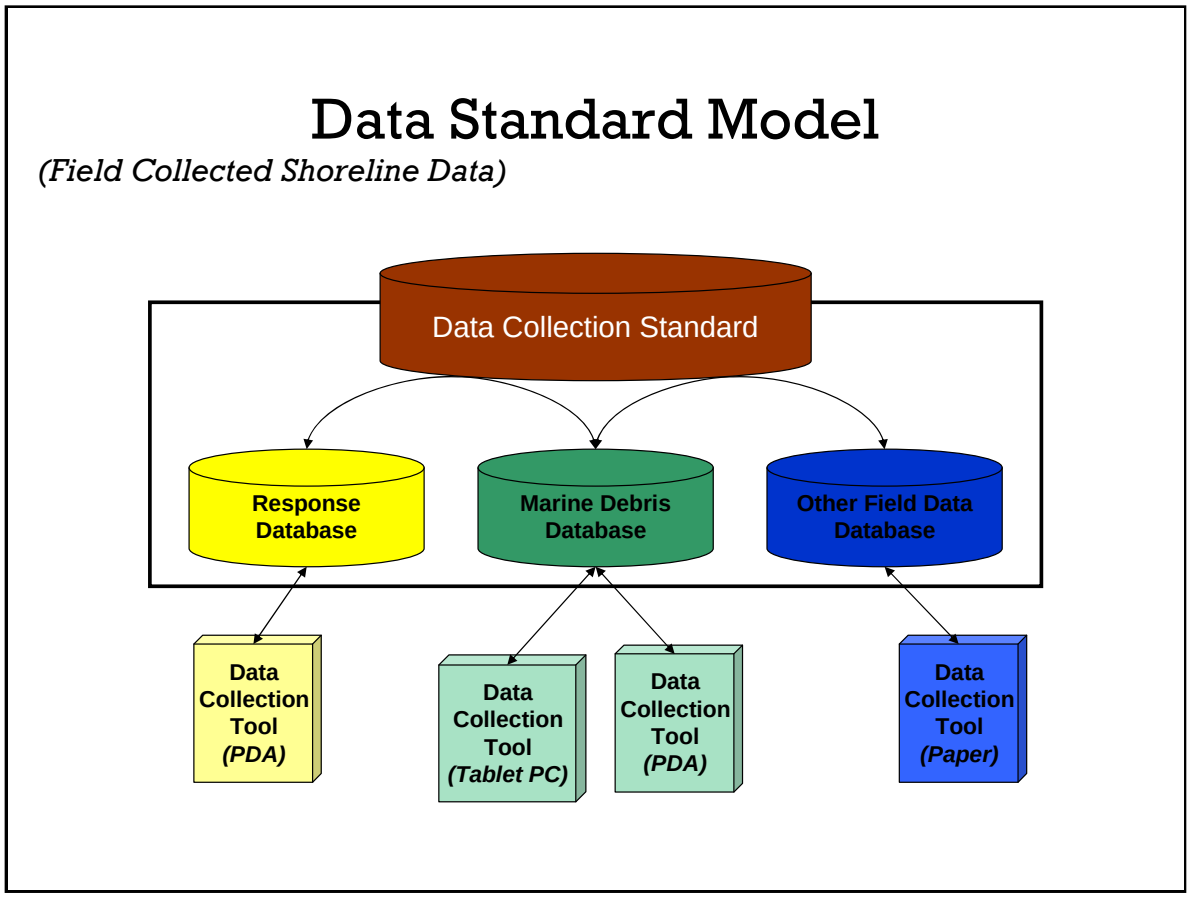


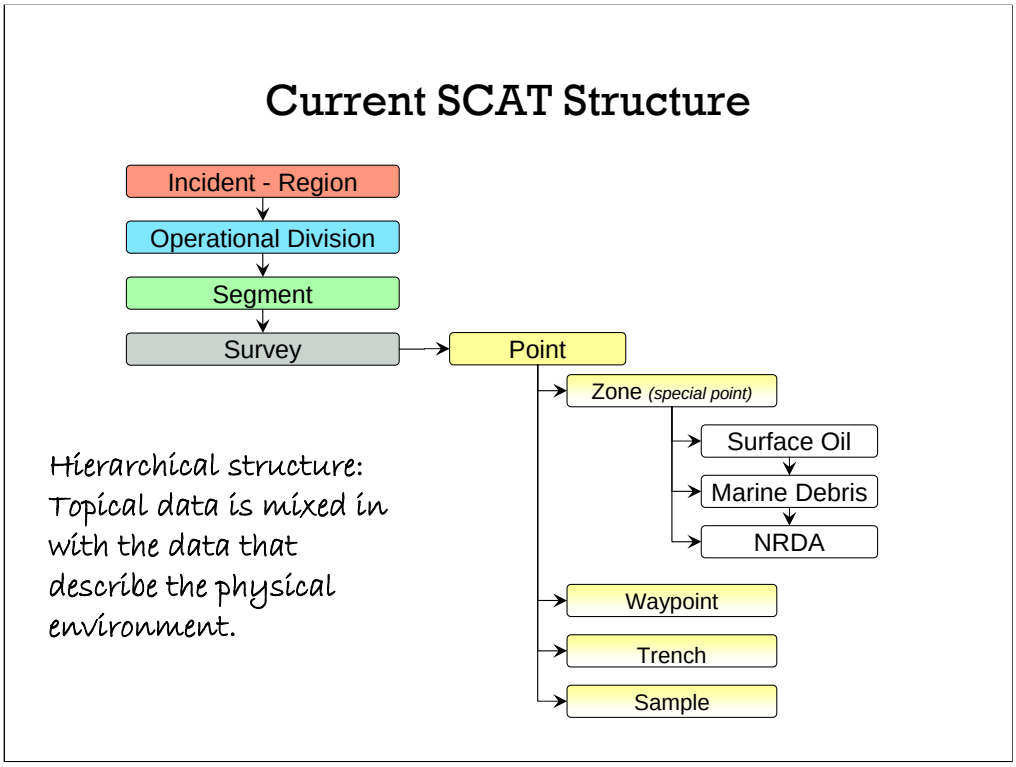
NOAA's Office of Response and Restoration (ORR) is working on an electronic data standard for shoreline cleanup and assessment technique (SCAT) and marine debris collection activities.

Advantages to a data standard include:

- Allowing separate missions and entities to share data quickly and efficiently, to provide integrated products, archive data for respective analyses etc.
- If partnerships were established outside of response activities, then there would be a greater pool of available information in a sharable format.
- The standard contains the rules for storing data and provides a common data format.

How the standard works:

- Separate databases store data for individual collection purposes. The data standard allows compatibility. The data might be stored in the standard format OR in a format that can be easily converted to the common format.
- The standard will allow for various data collection front ends that feed field data back to the databases.
- Depending on needs in the field, the databases may push data back out to the data collection tools for review in the field.

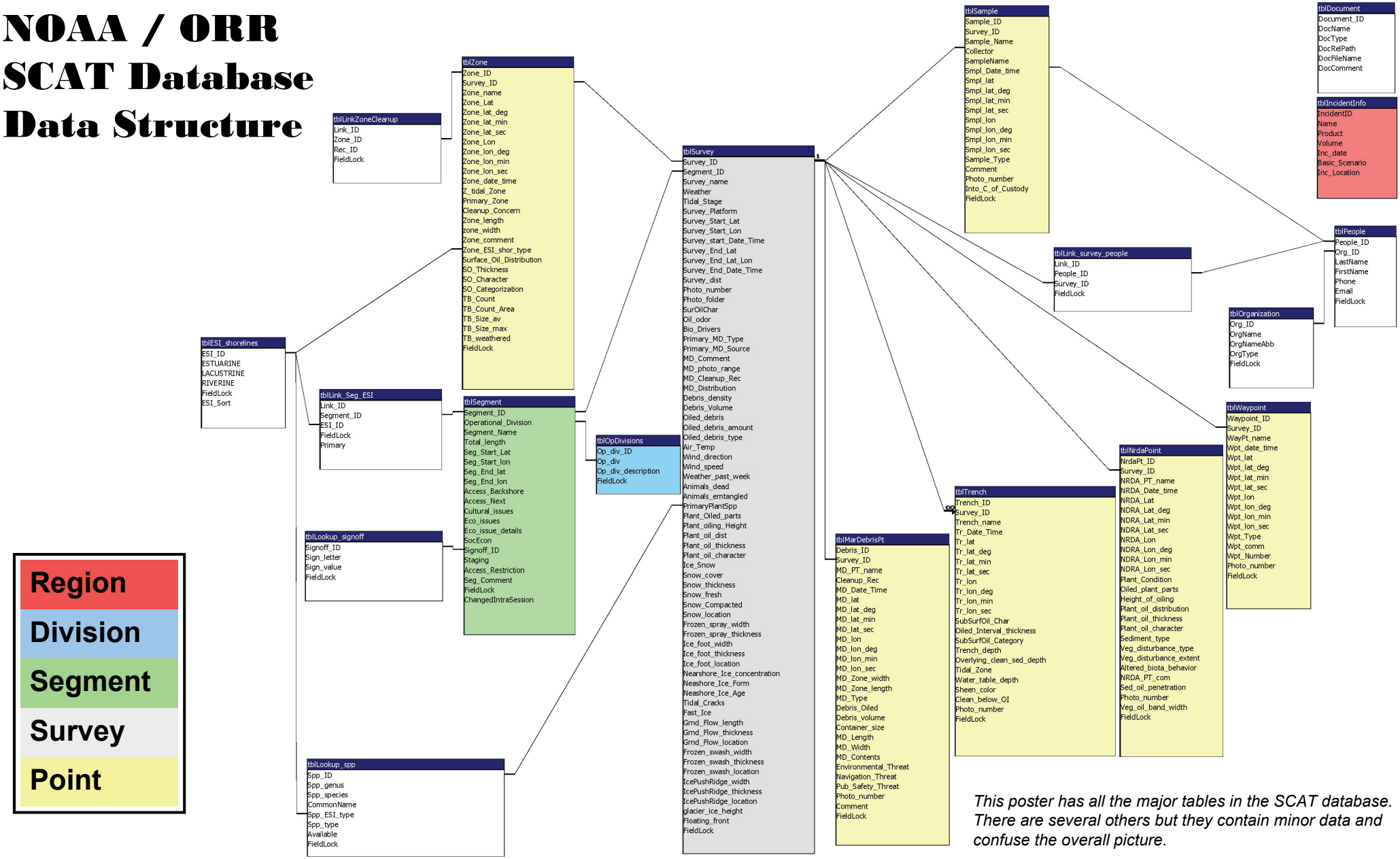


The ORR database is currently organized as follows:

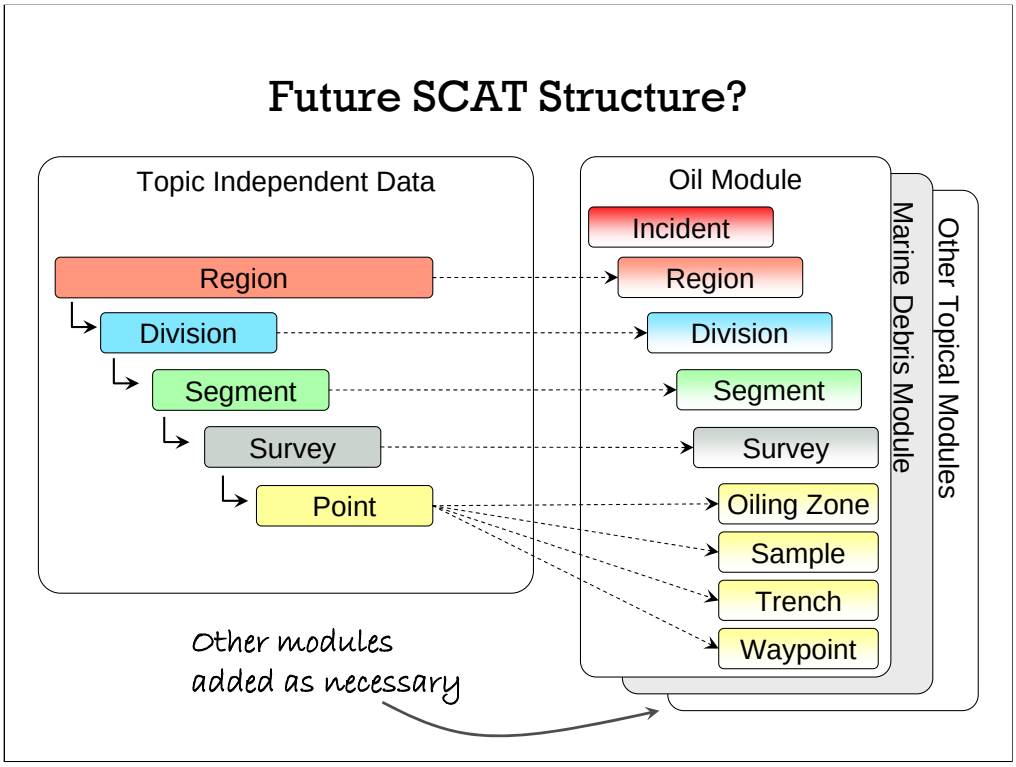
- Data are organized in a spatial and temporal hierarchy.
- Region – general information describing an area that encompasses the entire incident (Scale: 10-100's of miles).
- Division – sub regions within the response area (Scale: 10 miles)
- Segments – areas small enough to comprise a single cleanup area – data at this level. Segment features do not change through time. (shoreline type)(Scale: 1 mile)
- Survey – segment features that change each visit (tide, weather)
- Point – specific data points or areas within a survey that can be represented by a set of reference coordinates (Scale: Feet represented by a lat/long and a description)
- Data describing the background environment and the incident-related conditions are stored together at each level. Topical data (like SCAT and Marine Debris) are blended together in places.
- Currently all spatial aspects of the data are tied to point locations (x.y). We do not try to collect areas (polygons) in the field. For two dimensional areas we collect a reference point and record a length and width (an oiled zone on a beach, for example)

Color coding tracks through the next three slides to indicate data level.

NOAA / ORR
SCAT Database
Data Structure



This poster has all the major tables in the SCAT database. There are several others but they contain minor data and confuse the overall picture.



A proposal on how it could be organized follows:

- Separate out the data that describe the environment from the data related to a specific topic of interest.
- Topical data could then be linked from separate but integrated modules.
- Modules could be built for any data that can be collected along a shoreline.
- The data standard would define the topic-independent data and would set up rules for building topical modules