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# Compilation of Data Sources Used to Construct Mine Warfare Data Bases for the Northern Arabian Sea, Celebes Sea, and Makassar Strait

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# **Compilation of Data Sources Used to Construct Mine Warfare Data Bases for the Northern Arabian Sea, Celebes Sea, and Makassar Strait**

## **Objective**

The purpose of this report is to document the data sources that were used to construct maps and digital databases of bottom-sediment type for the Northern Arabian Sea, Celebes Sea, and Makassar Strait (see the attached figures showing the approximate boundaries of the mapped areas).

## **Approach**

The following is a brief outline of the approach used to construct bottom-sediment maps for each region. For a more detailed discussion see Bowles and Phelps (1999; Naval Research Laboratory Report NRL/MR/7432—99-8223).

1. National Imagery and Mapping Agency (NIMA) nautical charts are used as the working (base) charts for each region. These charts are readily available from the NAVOCEANO library and feature bottom sediment data in addition to bathymetric data and coastlines.
2. An extensive literature and institutional search is performed to identify and acquire existing bottom-sediment data in each region. These data are in the form of point data (core, dredge, grab samples) with associated sediment-type descriptors, or existing sediment-type boundary maps.
3. As data is acquired, it is carefully assessed, geo-referenced (in the case of existing sediment maps) and transferred to the base charts. Once all the data is transferred, boundaries are drawn around the point data designating areas (provinces) of similar sediment type. These province boundaries are then merged with the boundaries from existing sediment maps.
4. Upon completion of the maps, the information on each map is digitized. The digitized information consists of separate files for land boundaries, sediment-province boundaries, and point data. The point data files consist of individual files for sand, silt, clay, rock, etc. The sediment nomenclature used to identify bottom type follows the enhanced “200 Categories” set defined in the current NAVOCEANO Master Sediment Tables.

## Discussion

It should be noted that the primary difficulties encountered in mapping the regions below are (1) poor sample density, and (2) difficulty in obtaining foreign data in a reasonable timeframe, if at all. Moreover, it is difficult to know which foreign publications to acquire. Many that were obtained did not contain useful information (e.g., core locations with descriptions or analyses, sediment-province maps). Therefore, it is difficult to assess whether the time invested in acquiring all the foreign data would result in significant improvements to the present sediment-province maps.

## NORTHERN ARABIAN SEA

### NIMA Charts

62353	62310	62093	92040
62350	62306	62092	
62344	62302	62091	
62342	62302(plan)	62091(plan)	
62340	62105	62090	
62330	62100	62080	
62320	62098	62070	
62313	62097	62050	
62312	62094	62046	

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## CELEBES SEA – MAKASSAR STRAIT:

### NIMA Charts - Celebes Sea

92280	92200	72143
92270	92190	72142
92260	92180	72142(plan)
92240	92170	72141
92230	92170(plan)	72130
92220	92101	<u>72120</u>
92216	73012	92242-plans A,B,C
92214	72173	73341-plan A
92210	72150	73341-plan J (includes plans B-H, K) 73441-plan L (includes plans M, N)

### NIMA Charts - Makassar Strait

72186	72085
72181	72084
72171	72084(plan)
72131(plan)	72080
72110	72075
72109	72070
92109(plans A,B)	
72107	
72105	
72103	
72101	
72100	

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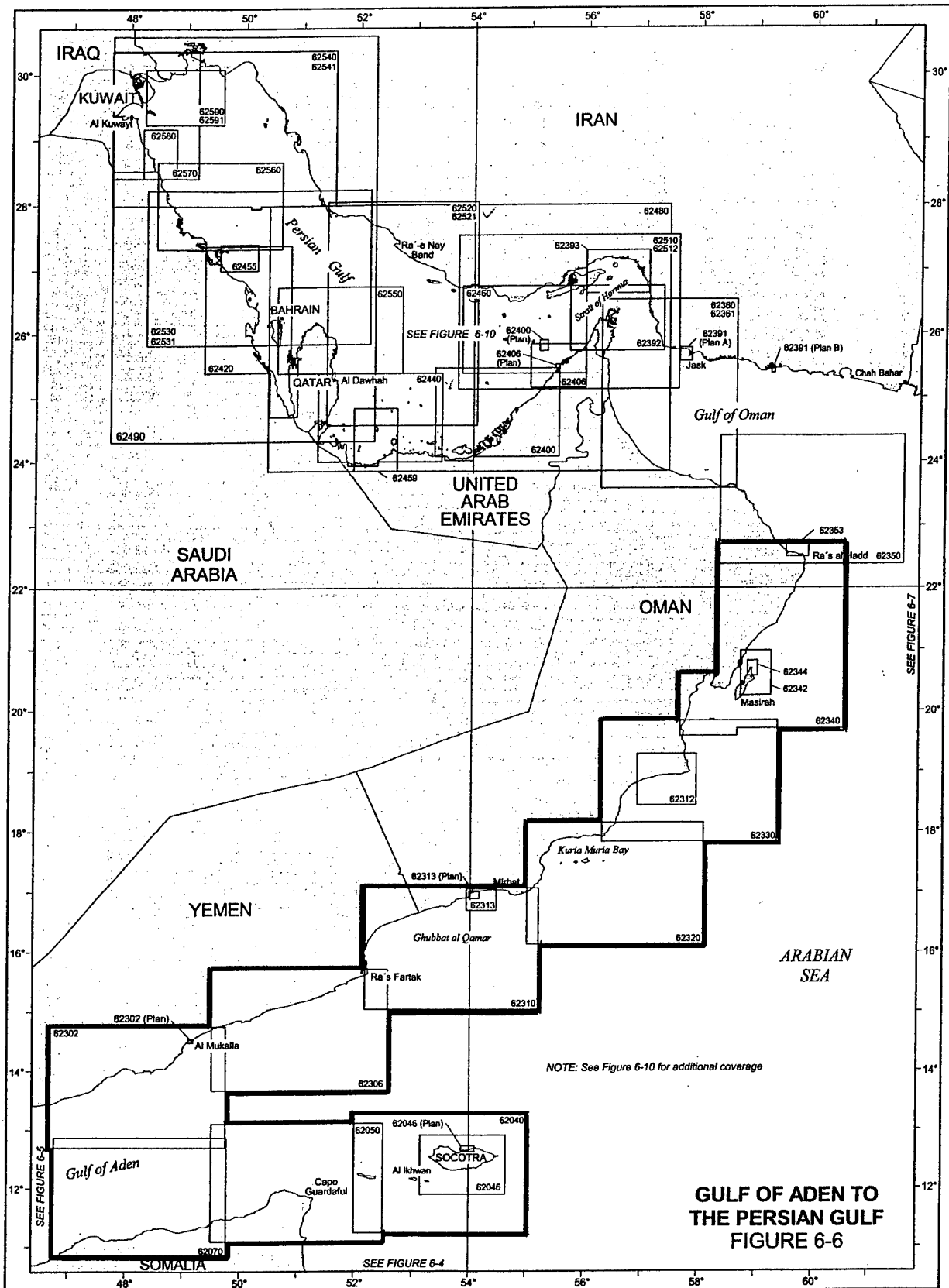
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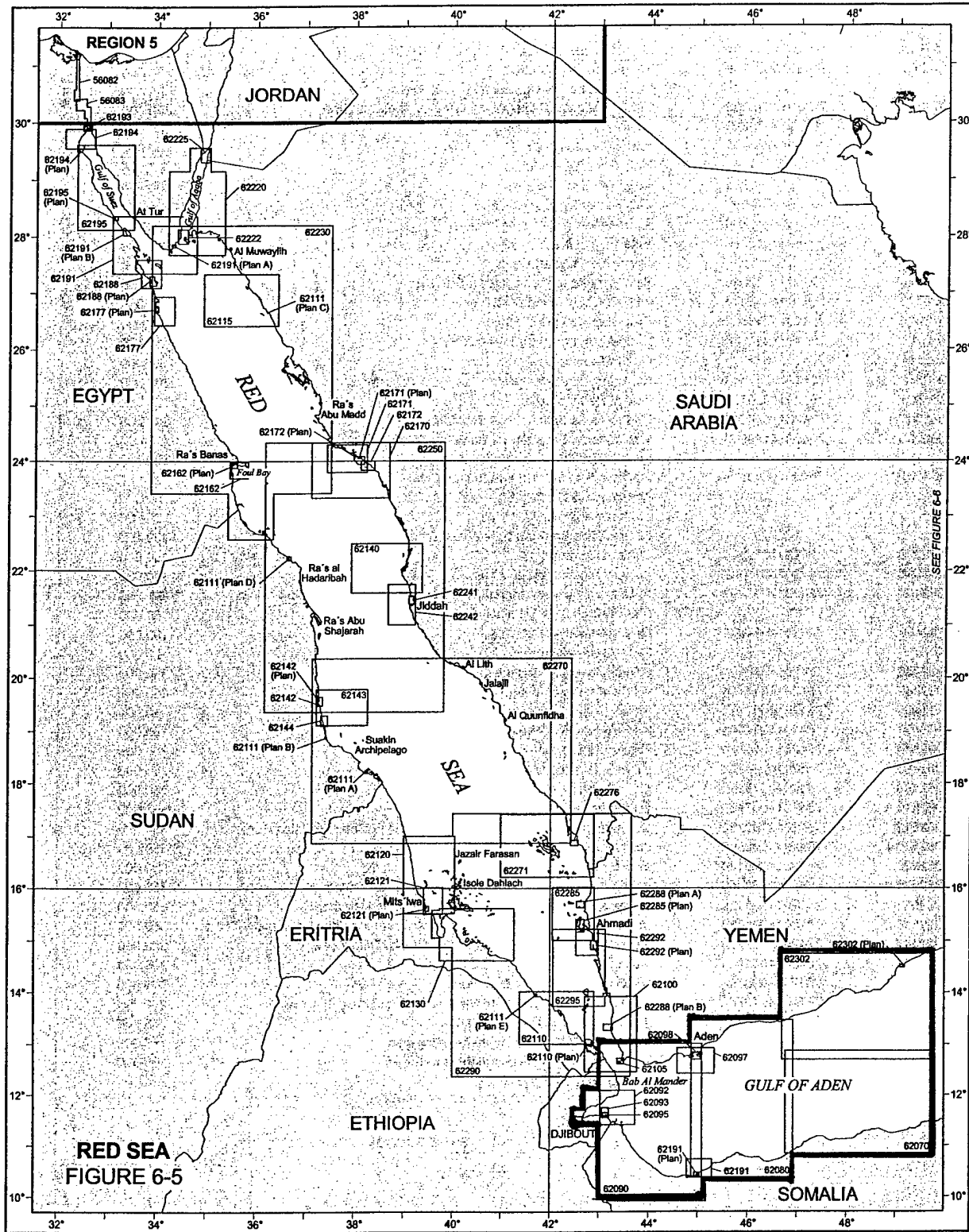


FIGURE 6-5

SEE FIGURE 6-6

