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United States of America

National Report

ROPME Sea Area Hydrographic Commission (RSAHC)

Abu Dhabi, UAE

9-11 February 2015

Naval Meteorology and Oceanography Command

<http://www.navmetocom.navy.mil>

National Geospatial-Intelligence Agency

http://msi.nga.mil/NGAPortal/MSI.portal?nfpb=true&st=&pageLabel=msi_home_page

NOAA, Office of Coast Survey

<http://www.nauticalcharts.noaa.gov>

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Hydrographic Office/Service

This National Report provides specific information pertaining to individual products and services of primary interest to the ROPME Sea Area Hydrographic Commission (RSAHHC). U.S. domestic and international hydrographic services are primarily conducted by three government agencies: The National Oceanic and Atmospheric Administration's (NOAA) Office of Coast Survey (OCS), the National Geospatial-Intelligence Agency (NGA), and the Naval Meteorology and Oceanography Command (CNMOC, U.S. Navy). NOAA provides nautical charts and related hydrographic information within the nation's EEZ. CNMOC conducts oceanographic, bathymetric, and hydrographic surveys worldwide to satisfy U.S. Navy requirements. NGA is the mapping and charting authority for the U.S. Department of Defense, building nautical charts for the U.S. Navy.

Surveys

The Naval Oceanographic Office (NAVOCEANO), a subordinate command of CNMOC, currently has five 100 meter multi-purpose survey ships of the T-AGS 60 PATHFINDER class at its disposal to conduct oceanographic, bathymetric, and hydrographic surveys. These ships are USNS PATHFINDER, USNS MARY SEARS, USNS BOWDITCH, USNS HENSON, and USNS BRUCE C. HEEZEN. BOWDITCH, HENSON, and HEEZEN each carry two 10 meter hydrographic survey launches (HSLs).

USNS SUMNER was recently deactivated, but the new survey ship USNS MAURY (T-AGS 66) was recently launched, is being fitted out, and will be delivered in 2015 bringing NAVOCEANO's survey fleet back up to six ships. MAURY is 8 meters longer than the previous ships of the class to accommodate a moon pool for unmanned underwater vehicle (UUV) deployment and retrieval.

NAVOCEANO has upgraded its Airborne Coastal Survey (ACS) capability with the new Optech Coastal Zone Mapping and Imaging (CZMIL) system. The system is flown on a Basler BT-67, a refurbished DC-3. NAVOCEANO is currently using the new system to conduct airborne hydrographic surveys.

Fleet Survey Team (FST), a subordinate command of NAVOCEANO, is comprised of approximately 65 military and civilian surveyors. FST employs various small craft for survey including 9 meter SAFE boats (defender class) fitted with multi-beam, 7 meter RHIB with multi-beam, and expeditionary survey vehicles (ESVs) which are jet skis fitted with a single beam echo sounder and side scan sonar. All FST craft can be transported in a C-130 aircraft for rapid deployment. FST also has equipment to outfit boats of opportunity for survey. This capability is used to address standard Navy survey requirements, but has also been employed to ensure clear approach corridors in support of humanitarian aid and disaster relief.

NAVOCEANO's survey ships, ACS aircraft, and FST have all been utilized in the past to conduct cooperative hydrographic surveys with countries in the region. However, no hydrographic surveys have been conducted within the region in the last year.

New Charts and Updates

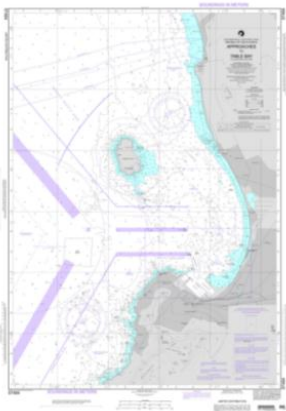
DNC and ENC



The U.S. (NGA) produces two (2) DNCs in RSAHC waters. These DNCs are maintained by NGA with new source information from the U.S. and prime foreign hydrographic authorities. This product is Limited Distribution and is not available for public sale or download.

See [Appendix A](#) for figures and tables

Paper charts and RNCs



NGA produces 116 paper charts for the RSAHC region in their Region 6 portfolio, but NGA is withdrawing many of them from public sale. The only charts NGA will continue to distribute to the public are those where NGA is the primary charting authority. These are specifically areas where the U.S. conducts the surveys, compiles and issues the chart, and there is no functioning national authority or NGA has specific authority (e.g. Trust Territory of the Pacific). NGA is not the prime authority for any area in the ROPME region.

NGA does not produce RNCs.

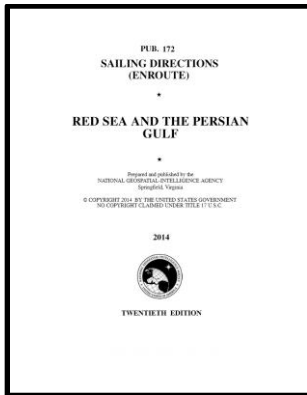
See [Appendix B](#) for figures and tables.

INT Charts

NGA does not share INT chart responsibility within the RSAHC region. However, NGA does build its chart schemes and DNC library limits from these INT schemes, if practical.

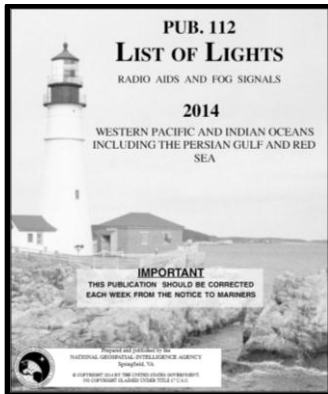
New Publications and Updates

Sailing Directions



Sailing Directions is produced and maintained by NGA. It consists of useful information important to navigators of coastal waters. *Publication 172 – Red Sea and the Persian Gulf* provides information for the RSAHC region. Digital updates can be downloaded from NGA at <http://msi.nga.mil/NGAPortal/MSI.portal>.

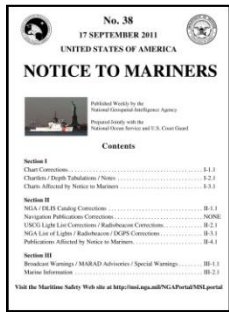
List of Lights, Radio Aids and Fog Signals



The NGA *List of Lights, Radio Aids and Fog Signals* and their digital updates are available to the public and are posted at the NGA Maritime Safety website, at <http://msi.nga.mil/NGAPortal/MSI.portal>. Pub 112 - Western Pacific and Indian Oceans Including the Persian Gulf and Red Sea covers the RSAHC region.

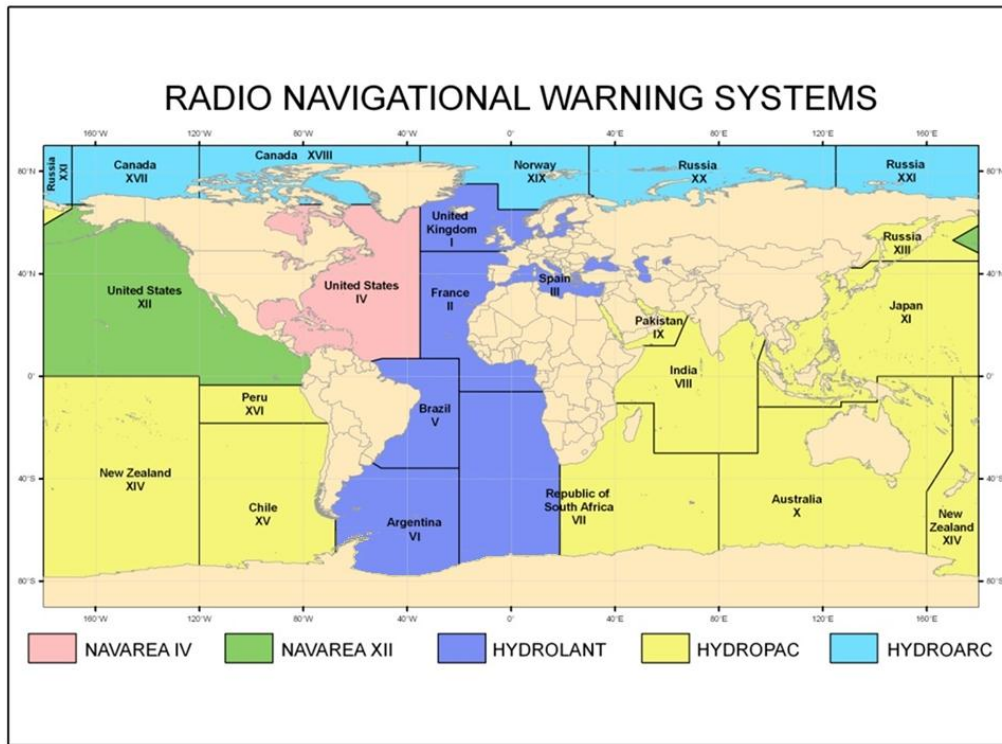
Maritime Safety Information (MSI)

Notice to Mariners



NGA produces Notices to Mariners for NGA charts in the RSAHC region. These are published weekly and available in digital format only.

Navigation Warnings



NGA produces navigational warnings for the area including the RSAHC Region. These are broadcast and uploaded every business day to:

http://msi.nga.mil/NGAPortal/MSI.portal?nfpb=true&st=&pageLabel=msi_portal_page_63

As it is both an IHO and IMO obligation per SOLAS, NGA requests the assistance of all member states within the RSAHC Region to relay pertinent maritime safety information for promulgation to navsafety@nga.mil. This is the most efficient process to keep mariners informed of time sensitive material while navigating within the RSAHC Region.

NGA is the NAVAREA IV and XII Coordinator within the IMO/IHO World-Wide Navigational Warning Service (WWNWS) and also acts as Chairman for the WWNWS-Sub-Committee (SC).

Capacity Building

The United States is an active participant in the IHO Capacity Building Sub-Committee (CBSC), and the U.S./NGA directly supports the IHO Maritime Safety Information (MSI) training course. Mr. Chris Janus of NGA is one of the Instructors for the course. The latest course was conducted in Muscat, Oman in December 2014.

Training Opportunities available in the United States

Training opportunities are available at various institutions in the United States. Two Category A certified hydrographic programs are available through two universities:

The University of Southern Mississippi (USM)

www.marine.usm.edu/hs.php

The University of New Hampshire (UNH)

www.marine.unh.edu/research/ccom.html

CNMOC and NAVOCEANO have partnered with USM for their program and NOAA has a similar arrangement with UNH for their Category A program. CNMOC also offers a 6-month category B International Hydrographic Management and Engineering Program via its Naval Meteorology and Oceanography Professional Development Center in Mississippi.

Capt. Andrew Armstrong, NOAA (ret.), the NOAA co-director of the Joint Hydrographic Center at UNH, is a member of the FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers. As a member of the board, Capt. Armstrong is available to advise institutions on establishing hydrographic training curricula and preparing submissions to the International Board for Category A or Category B recognition. (andy.armstrong@noaa.gov).

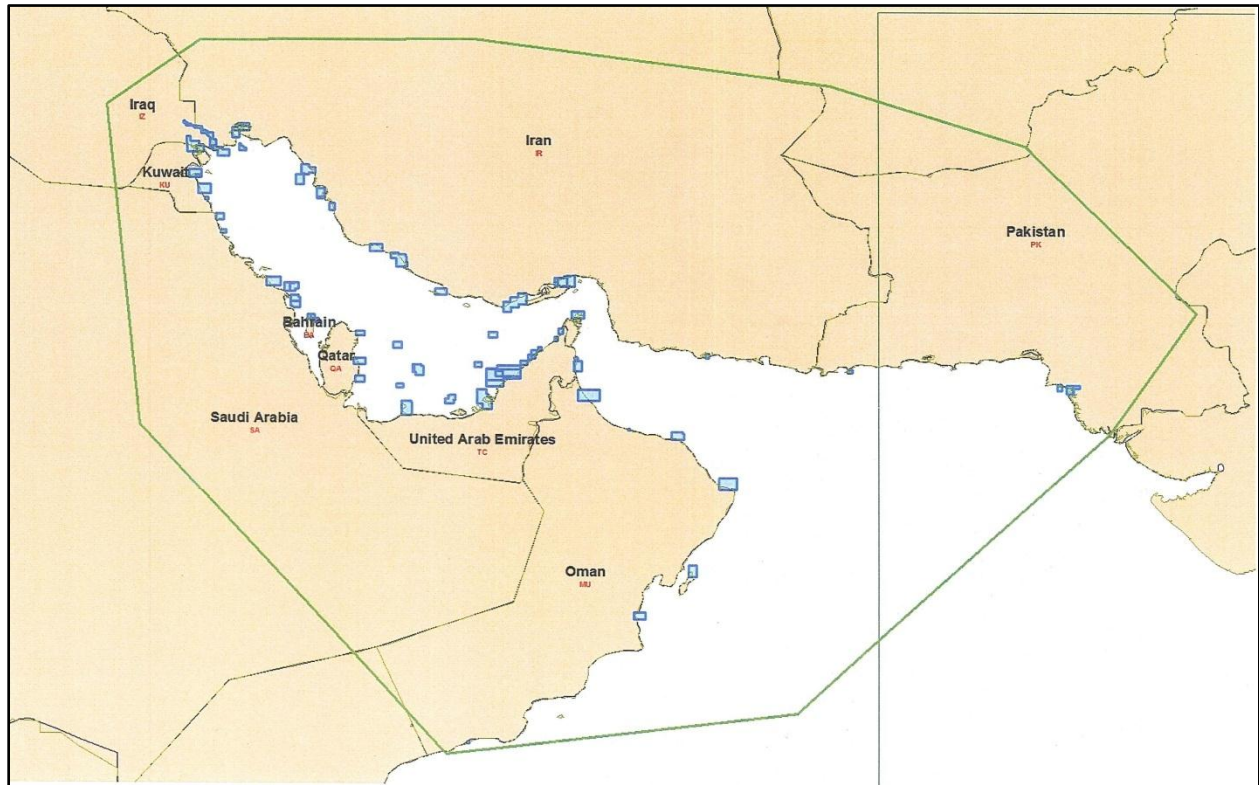
Oceanographic Activities

GEBCO

The United States participates on the IOC-IHO Guiding Committee for GEBCO, and hosts the IHO Data Centre for Digital Bathymetry at NOAA's National Geophysical Data Center.

Appendix A

NGA DNC berthing/harbor band scale library coverage and list.

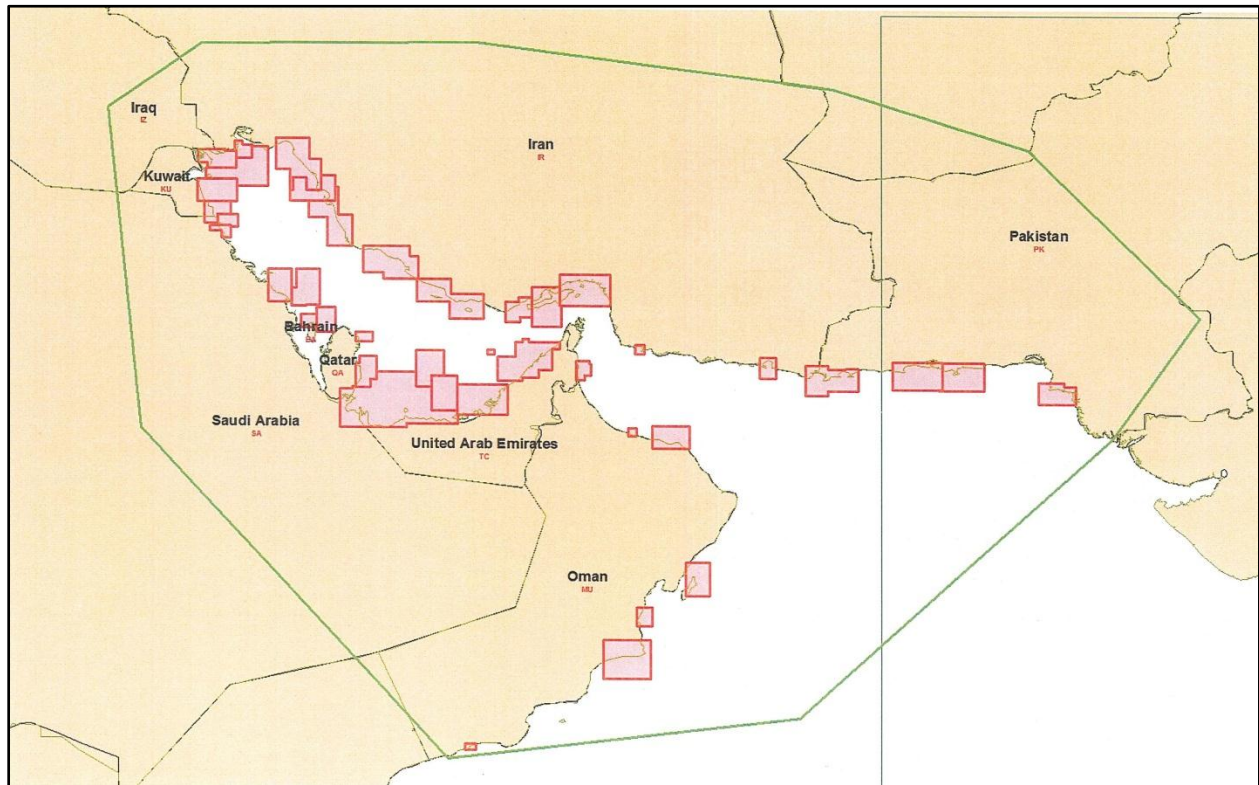


H1048230	Port Salalah, Oman
H1048235	Port of Ad Duqm, Oman
H1048240	Ra's Hilf, Masirah Island, Oman
H1048245	Sur and Al Hadd, Oman
H1048250	Mina' Qabus, Oman
H1048256	Said Bin Sultan Naval Base, Oman
H1048257	Al Liwa (Sohar), Oman
H1048258	Musandam Peninsula, Oman
H1048261	Sir Abu Nuayr (Castle Rock), United Arab Emirates
H1048262	Fujayrah Harbor, United Arab Emirates
H1048263	Khawr Fakkan, United Arab Emirates
H1048264	Mina' Saqr, United Arab Emirates
H1048266	Arzanah Island, United Arab Emirates
H1048268	Mubarraz Oil Terminal, United Arab Emirates
H1048269	Ra's Al Khaymah, United Arab Emirates
H1048270	Ajman Channel, United Arab Emirates
H1048271	Ash Shariqah, United Arab Emirates
H1048272	Umm Al Qaywayn, United Arab Emirates

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H1048274	Al Hamriyah, United Arab Emirates
H1048275	Dubayy, United Arab Emirates
H1048276	Mina' Jabal Ali, United Arab Emirates
H1048277	Jazirat Das, United Arab Emirates
H1048278	Abu Zaby (Abu Dhabi), United Arab Emirates
H1048281	Khalifa Port, United Arab Emirates
H1048282	Jabal Az Zannah and Al Hamra, United Arab Emirates
H1048287	Umm Said, Qatar
H1048290	Ad Dawhah Harbor, Qatar
H1048295	Jazirat Halul, Qatar
H1048297	Ra's Laffan, Qatar
H1048310	Mina' Al Manamah, Bahrain
H1048325	Mina Salman and Sitrah, Bahrain
H1048338	Al Jubayl, Saudi Arabia
H1048340	Ad Dammam, Ras Tannurah, Al Ju'Aymah, Saudi Arabia
H1048342	Ra's Al Ju'aymah Terminals, United Arab Emirates
H1048345	Ra's Al Mishab, Saudi Arabia
H1048346	Ra's Al Khaf Ji, Saudi Arabia
H1048361	Mina' Al Ahmadi, Kuwait
H1048369	Ra's Al Qulayah, Kuwait
H1048370	Al Kuwayt, Kuwait
H1048385	Al Faw, Iraq
H1048399	Umm Qasr, Iraq
H1048450	Bandar-E Mahshahr, Iran
H1048451	Khowre Musa: The Bar, Iran
H1048464	Bandar-E Genaveh, Iran
H1048465	Approach to Jazireh-Ye Khark, Iran
H1048470	Bushehr, Iran
H1048472	Mohammad Ameri, Iran
H1048475	Dayyer, Iran
H1048477	Bandar-E Taheri and Khalige-E Nay Band, Iran
H1048480	Jazireh-Ye Lavan, Iran
H1048490	Bandar-E Lengeh, Iran
H1048495	Bandar Shahid Rejaie, Iran
H1048520	Bandar Abbas, Iran
H1048535	Sirri Island, Iran
H1048545	Khowr-E Rapch, Iran
H1048590	Gwadar, Pakistan
H0348600	Karachi Harbor, Pakistan
H0348605	Port Muhammad Bin Qasim, Pakistan

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NGA DNC approach band scale library coverage and list.

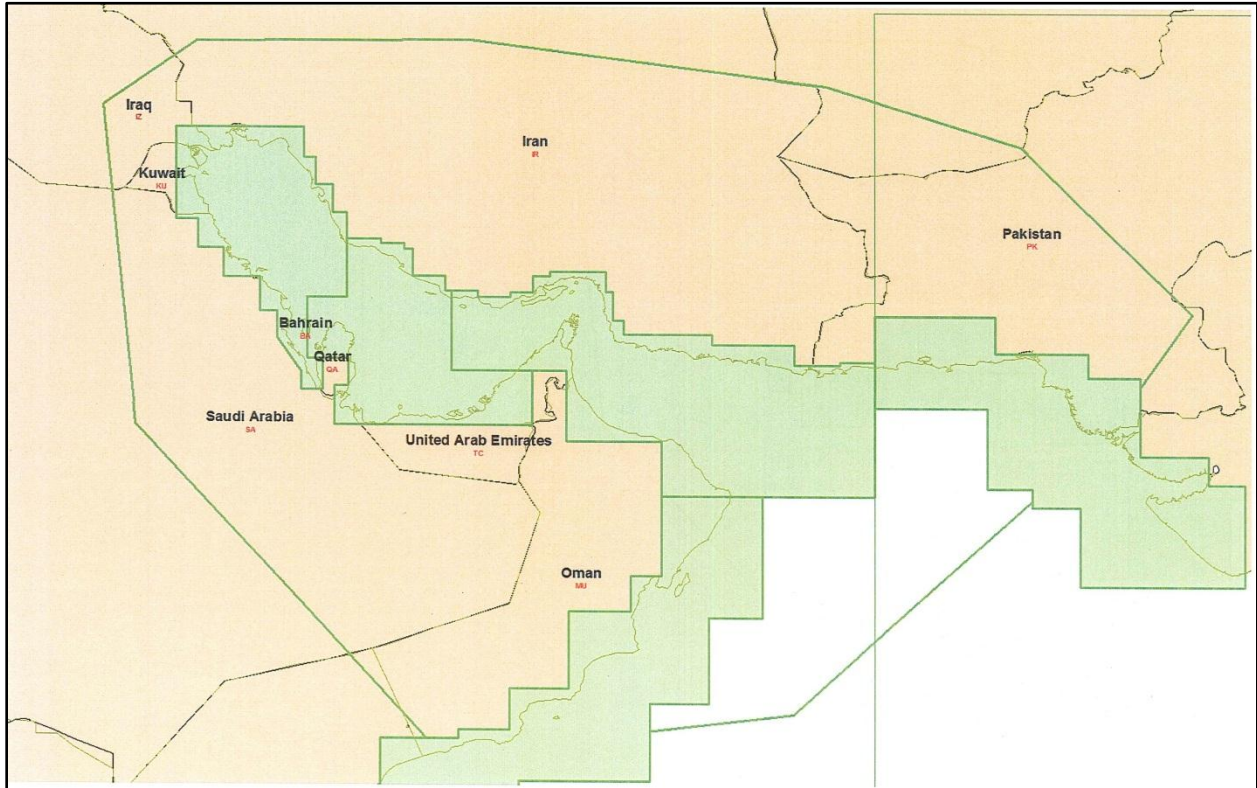
A1048230	Port Salalah, Oman
A1048232	Ra's Al Madrasah, Oman
A1048235	Approaches to Ad Duqm, Oman
A1048240	Northern Approaches to Masirah Island, Oman
A1048250	Mina' Al Fahl and Mina Qabus, Oman
A1048256	Said Bin Sultan Naval Base, Oman
A1048262	Khawr Fakkan; Al Fujayrah, United Arab Emirates
A1048265	Fateh Oil Terminal, United Arab Emirates
A1048268	Al Mubarraz, United Arab Emirates
A1048275	Dubayy and Ash Shariqah, United Arab Emirates
A1048277	Das, United Arab Emirates
A1048278	Abu Zaby (Abu Dhabi), United Arab Emirates
A1048282	Jabal Az Zannah and Al Hamra, United Arab Emirates
A1048290	Approach to Ad Dawhah, Qatar
A1048297	Ra's Laffan, Qatar
A1048310	Mina' Salman and Mina Al Manamah, Bahrain
A1048320	Sitrah, Bahrain
A1048338	Al Jubayl, Saudi Arabia
A1048340	Al Ju'Aymah and Ras Tannurah, Saudi Arabia
A1048345	Ra's Al Mishab, Saudi Arabia

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A1048346	Ra's Al Khaf Ji, Saudi Arabia
A1048356	Mina' Saud, Kuwait
A1048361	Mina' Al Ahmadi, Kuwait
A1048374	Jazirat Faylakah, Kuwait
A1048385	Al Faw, Iraq
A1048450	Bandar-E Mahshahr, Iran
A1048463	Approaches to Bandar-E Deylam, Iran
A1048465	Jazireh-ye Khark, Iran
A1048470	Approaches to Bandar-E Bushehr, Iran
A1048475	Bandar-E Pars Dayyer, Iran
A1048480	Jazire-Ye Lavan and Jazireh-Ye Kish, Iran
A1048490	Approaches to Bandar-E Lengeh, Iran
A1048495	Khuran Strait, Iran
A1048520	Bandar Abbas, Iran
A1048540	Jask, Iran
A1048550	Khalij-E Chabahar, Iran
A1048590	Pass-e-Bandar, Pakistan
A0348590	Dimi Zarr, Pakistan
A0348591	Pasni, Pakistan
A0348600	Karachi, Pakistan

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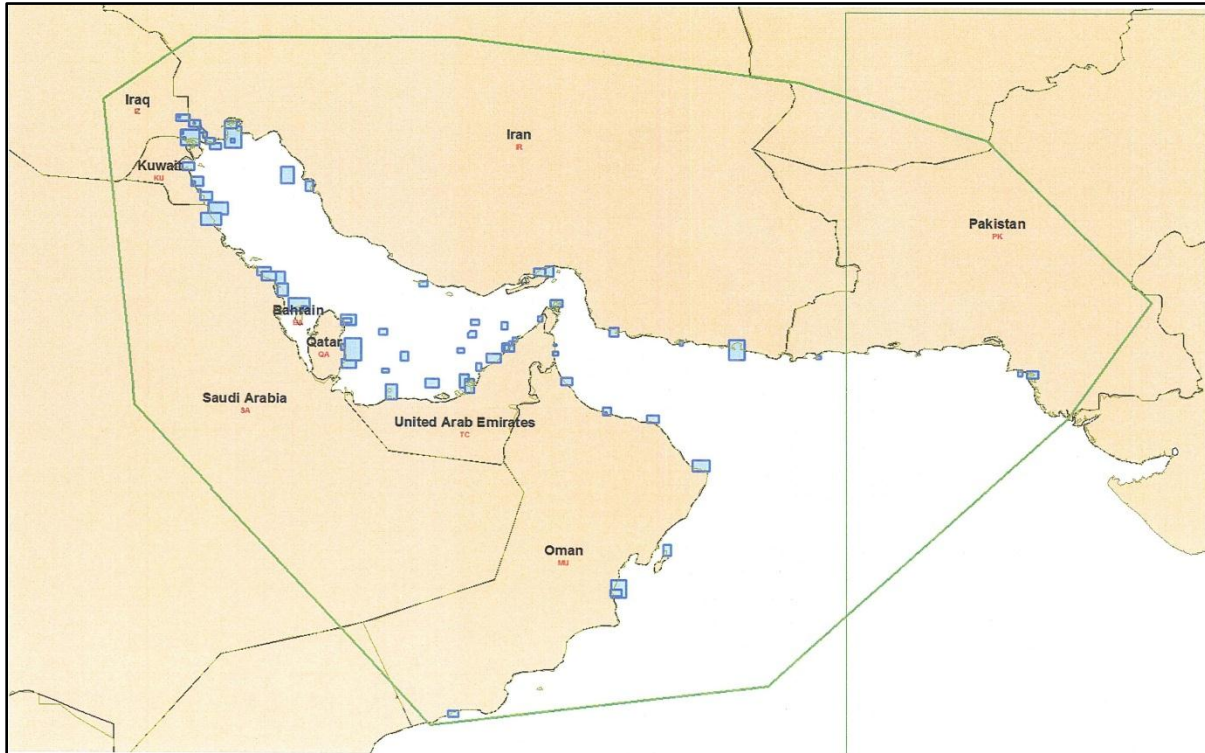
NGA DNC berthing/harbor band scale library coverage and list.



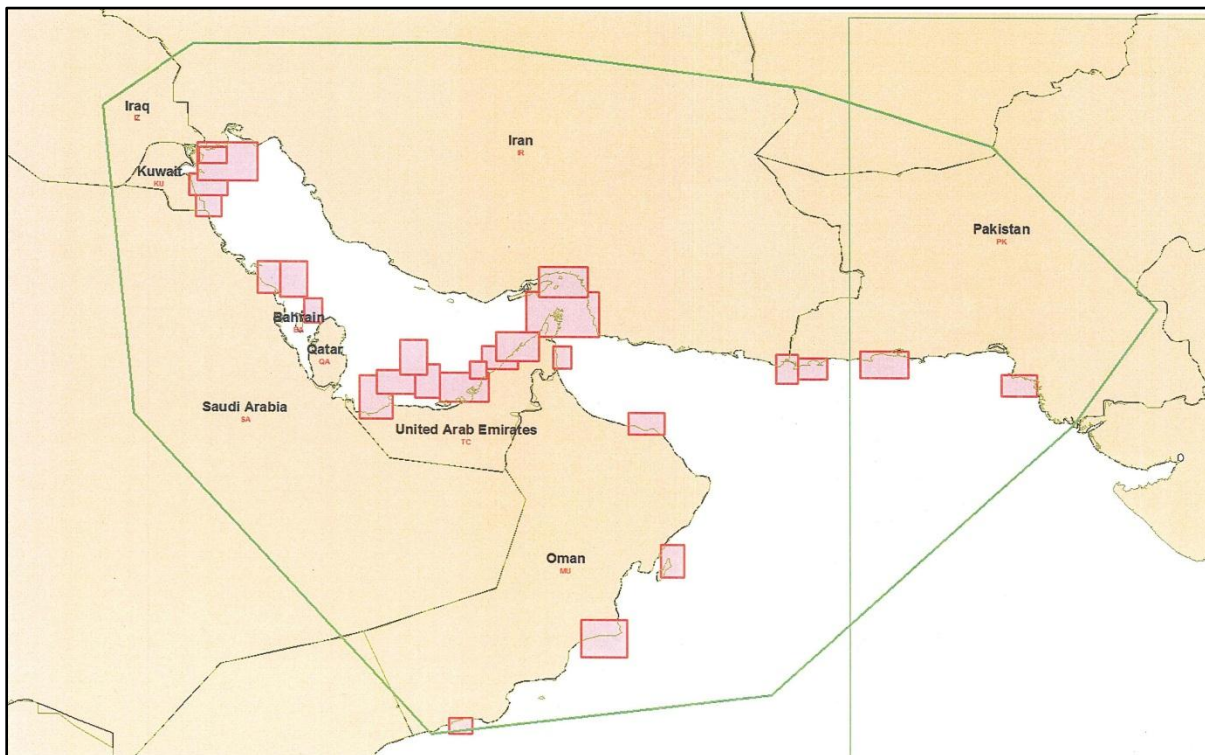
COA03H	Pasni, Pakistan to Diu Head, India
COA10K	Ash Shihr, Yemen to Ras Al Wudayyah, Oman
COA10L	Lower Persian Gulf, Gulf of Oman
COA10M	Middle Persian Gulf
COA10N	Upper Persian Gulf

Appendix B

NGA nautical chart berthing/harbor scale coverage



NGA nautical chart approach scale coverage



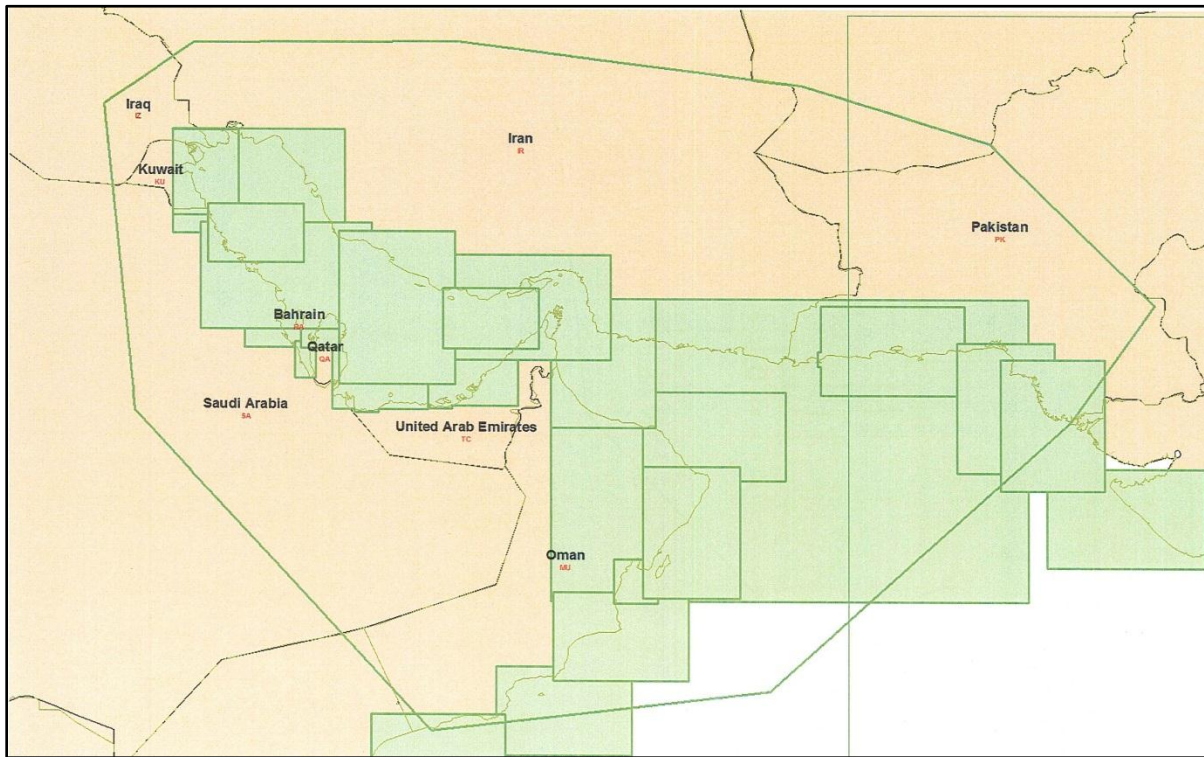
NGA nautical chart coastal scale coverage**NGA nautical charts list for ROPME region**

CHART NUMBER	EDITION DATE	EDITION	CHART TITLE	ANNOUNCED IN NTM
62028	2/15/1997	15	Gulf of Oman and Adjacent Coasts	199715
62032	5/31/2014	17	Persian Gulf	201434
62033	5/31/2014	4	Persian Gulf	201433
62312	9/5/1998	3	ARAB.SEA-OMAN-CNT.CST.-APPR.RAS AL MADAK	199901
62313	1/5/2002	4	Port Salalah (Mina Raysut) and Approaches	200217
62314	6/20/1998	3	MINA QABUS, GULF OF OMAN	199841
62320	8/29/1998	2	RA'S QARWAW TO RA'S JANJALI	199847
62330	2/6/1999	2	RA'S AD DUQM TO RA'S SHARBITHAT	199922
62333	10/27/2012	1	Approaches to Ad Duqm	201306
62334	7/13/2013	1	Ad Duqm Port	201341
62340	12/12/1998	3	RA,S DUAM TO RA,S AL HADD	199917
62342	10/15/1994	2	APPROACH TO AL MASIRAH, OMAN	199501

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62343	10/7/2006	4	Mina' Qabus to Mina' al Fahl	200650
62344	10/29/1994	2	RA'S HILF MASIRAH	199503
62350	2/17/1996	3	RA'S AL HADD TO MASQAT	199617
62353	2/24/1996	4	RA'S AL HADD TO SUR	199626
62355	10/7/2006	7	Approaches to Mina' Qabus and Mina' al Fahl	200703
62360	3/11/1995	5	MASQAT TO AS SALAMAH WA BANATUHA	199517
62361	6/15/1996	2	MASQAT TO AS SALAMAH WA BANATUHA DL	199639
62362	11/29/1997	1	APPROACHES TO SAID BIN SULTAN NAVAL BASE	199809
62364	7/2/2005	1	Approaches to Port Sohar	200546
62366	6/21/2014	5	Approaches to Khawr Fakkan and Al Fujayrah (Fujairah)(201441
62367	6/28/2014	1	Port of Al Fujayrah (Fujairah) and Offshore Terminals	201441
62377	3/30/1996	2	KHALIJ-E CHAH BAHAR [GULF OF OMAN-IRAN]	199625
62387	3/14/2009	3	Gwatar Bay	200923
62388	2/28/2009	3	Gwadar Bays	200914
62389	9/20/2008	1	Port of Gwadar	200843
62391	6/7/2003	5	Plans on the Coast of Pakistan and Iran	200333
62392	3/17/2012	8	Strait of Hormuz	201221
62393	5/18/2013	8	Approaches to Bandar 'Abbas	201335
62394	9/29/2012	11	Bandar 'Abbas	201301
62395	9/29/2012	4	Bandar-e Shahid Raja'i	201252
62396	5/6/1995	5	MUSANDAM PENINSULA [PERSIAN GULF-OMAN]	199523
62400	9/23/1995	17	AL MUBARAK TO ASH SHARIQAH INCLUDING MU	199552
62401	8/26/1995	9	APPROACHES TO JABAL AZ ZANNAH	199544
62402	12/14/2013	11	Approaches to Ad Dawhah (Doha) and Umm Sa'id (Mussay'id)	201410
62403	12/16/1995	5	APPROACHES TO ABU ZABY	199608
62404	5/6/1995	3	JABAL AZ ZANNAH ANCHORAGE [PERSIAN GULF-	199523
62405	4/19/2014	9	Approaches to Dubai (Dubayy) and Sharjah (Ash Shariqah)	201447

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62406	3/2/2013	3	Ra's al Khaymah to Dubayy	201321
62407	3/25/1995	5	AL MUBARRAZ AND APPROACHES	199519
62408	5/6/1995	7	APPR TO DAS,ZIRKUH & ABU AL BUKHUSH TERMN	199523
62409	7/11/1998	6	Plans in Qatar	199841
62411	5/23/1998	1	APPROACHES TO RA'S LAFFAN	199832
62412	7/22/2006	13	Outer Approaches to Bahrain	200643
62413	7/22/2006	13	Approaches to Bahrain	200643
62414	4/1/1995	2	MUBARRAZ OIL TERMINAL	199522
62415	9/2/1995	14	AL JU'AYMAH	199544
62416	7/12/2014	15	Ra's Tannurah and Ad Dammam	201439
62417	5/12/2012	4	Ra's Laffan Port	201232
62418	9/29/2012	9	Ra's Al Ghar	201301
62419	6/24/1995	6	AL JU'AYMAH, RA'S TANNURAH & AD DAMMAN,A	199530
62420	5/3/2014	6	Bahrain to Jazirat Abu 'Ali including Dawhat As Salwa	201431
62421	7/26/2014	1	Approaches to Bahrain - Northern Part	201441
62422	7/26/2014	1	Approaches to Bahrain - Central Part	201441
62423	7/26/2014	1	Approaches to Bahrain - Southern Part	201441
62424	7/26/2014	1	Approaches to Port of Sitrah	201441
62428	7/28/2012	10	Bushehr and Approaches	201242
62429	6/23/2012	10	Al Jubayl	201237
62431	3/16/2002	8	Jazireh-ye Khark	200226
62432	6/17/2006	18	Approaches to Mina' al Ahmadi and Mina' Ash Shu'aybah	200635
62433	6/26/2004	13	Harbor of Al Kuwait (Kuwait Harbor)	200440
62434	3/16/2013	12	Approaches to Khawr 'Abd Allah and Shatt Al' Arab	201327
62437	8/11/2007	12	Khawr Shatanah and Approaches to Umm Qasr and Az Zubayr	200739
62440	3/1/2003	8	Ad Dawhah to Al Mubarraz	200316
62441	7/29/2000	10	Khawr-e Musa	200102

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62442	5/4/2013	7	Khowr-e Musa	201335
62444	1/5/2013	3	Outer Approaches to Abu Zaby (Abu Dhabi)	201312
62446	7/28/2007	4	Dubai (Dubayy)	200808
62447	5/4/2013	3	Ash Shariqah (Sharjah)	201331
62448	4/8/1995	2	AL KHAFJI - SAUDI ARABIA	199522
62449	9/2/1995	4	DAS	199603
62451	2/18/1995	7	RAS AL KHAFJI [PERSIAN GULF - SAUDI ARAB	199515
62452	8/12/1995	4	APPROACHES TO MINA RA'S MISH'AB	199540
62453	3/28/2009	6	Mina' Salman and Approaches	200918
62455	11/10/2012	8	Approaches to al Jubayl	201305
62456	6/23/2012	2	Al Jubayl Ports	201237
62457	2/1/2003	6	Umm Sa'id	200311
62458	4/18/1992	1	MINA SAQR, U.A.E.	199222
62459	8/30/2014	3	Approaches to Al Hamra	201447
62460	10/29/2011	5	Persian Gulf - Eastern Part	201211
62462	10/27/2012	3	Approaches to Abu Zaby (Abu Dhabi)	201305
62463	10/27/2012	3	Abu Zaby (Abu Dhabi) and Umm An Nar	201306
62464	12/26/2009	4	Mina Jabal Ali	201010
62465	11/16/2013	1	Approaches to Khalifa Port (Mina' Khalifa)	201409
62480	4/12/2014	3	Strait of Hormuz to Qatar	201431
62481	9/2/1995	4	JAZIREH-YE LAVAN TERMINAL	199548
62490	5/3/2014	3	Qatar to Shatt al 'Arab	201431
62498	6/5/2010	5	Approaches to Mina Jabal Ali, Dubayy and Ash Shariqah including Fateh Oil Terminal	201028
62499	1/16/2010	6	Approach to Mina Jabal Ali	201010
62512	5/3/2014	4	Damagheh-ye Kuh to Jazireh-ye Kish	201431
62515	9/2/1995	2	MINA AZ ZAWR - KUWAIT	199611
62521	5/31/2014	5	Jazireh-ye Kish to Jabrin and Ras Laffan	201433

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62530	3/8/2003	6	Jabrin and Ra's Laffan to Jazireh-Ye Farsi and Ad Dammam	200320
62531	3/8/2003	4	Jabrin and Ra's Laffan to Jazireh-Ye Farsi and Ad Dammam	200320
62541	5/24/2014	4	Jazireh-ye Farsi and Al Mish'ab to the Mouth of the Khowr-e Musa	201431
62550	3/15/2014	4	Jazirat Halul to Bahrain	201425
62552	1/7/2006	1	Doha (Ad Dawhah) and Approaches	200612
62560	11/23/2013	5	Jazirat Abu 'Ali to Ra's Bard Halq	201408
62570	10/26/2013	5	Jazirat Umm Al Maradim to Shatt al 'Arab including Al Kuwayt	201403
62572	6/17/2006	3	Mina' al Ahmadi and Mina' Ash Shu'aybah	200645
62580	1/16/1999	3	APPROACHES TO RA'S AL QULAY'AH	199917
62584	7/30/2005	3	Ra's al Qulay'ah	200543
62590	9/20/2008	3	Jazirat Faylakah to Damagheh-ye Bahrgan	200846
62591	9/20/2008	4	Jazirat Faylakah to Damagheh-ye Bahrgan	200846
62592	7/15/2006	1	Entrance to Shatt al 'Arab	200641
62593	7/15/2006	1	Inner Bar to Kabda Point	200641
62594	7/15/2006	1	Kabda Point to Abadan	200641
62595	7/15/2006	1	Abadan to Jazirat Umm at Tuwaylah	200642
62596	7/15/2006	1	Jazirat Umm at Tuwaylah to Al Ma'Qil	200642
63040	12/15/2001	2	Gwadar to Ra's Malan	200212
63041	4/5/2008	1	Ras Basol to Pasni	200832
63050	2/4/2012	3	Ras Kachari to Mouths of the Indus	201222
63053	2/18/2006	5	Approaches to Karachi	200614
63054	11/17/2001	3	Karachi Harbor	200219
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