## **CNA's Integrated Ship Database**

Fourth Quarter CY 2012 Update

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CNA Interactive Software
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#### Photo credit

Both photos from: America's Navy. "Media: Photo Gallery," Last accessed Sep. 30, 2013 at http://www.navy.mil/viewGallery.asp

"090505-N-5319A-006 ALEXANDRIA, Va. (May 5, 2009) The littoral combat ship USS Freedom (LCS 1) pulls into port at Robinson Terminal in Old Town Alexandria, Va. The Freedom brings new capabilities to the fleet, including the ability to travel closer to shore than a conventional ship, providing a considerable advantage in the war on terror. (US Navy photo by Mass Communication Specialist 1st Class Brien Aho/Released)" (http://www.navy.mil/management/photodb/photos/090505-N-5319A-006.jpg)

"100116-N-8273J-025 MOBILE, Ala. (Jan. 16, 2010) The new littoral combat ship, USS Independence (LCS 2) is pier side during her commissioning ceremony. Independence is the second of two littoral combat ships designed to operate in shallow water environments to counter threats in coastal regions. (U.S. Navy photo by Mass Communications Specialist 1st Class Tiffini Jones Vanderwyst/Released)" (http://www.navy.mil/management/photodb/photos/100116-N-8273J-025.jpg)

Approved for distribution:

March 2014

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## Introduction

## **Background**

In this CNA Interactive Software document, we present the update of our Integrated Ship Database (ISDB) for the fourth quarter of calendar year 2012.

In this version of the ISDB, as in the previous ones, we bring together data on naval ships from several different online government sources into a single combined database tool. The ISDB makes ship data readily accessible for analysis and reporting. By continually maintaining and updating the database, we are better able to respond promptly to requests for information on ships from our sponsor<sup>1</sup>, from other CNA research scientists and analysts, and from others in government as well.

Since our initial version in 2005 [1], we have published 27 quarterly updates [2–28]. They are all available online on the <u>Integrated Ship Database page</u> of CNA's website, <u>www.cna.org</u>.

### **Outline of this document**

We begin with a brief overview of the ISDB to orient you in a general way to the database. But if you are looking for details, please refer to the original 2005 user's manual [1] and to the fourth quarter 2011 update [25]. In addition, the documentation of the second quarter 2012 update [27] discusses the changes we made due to the Military Sealift Command's (MSC) organizational realignment of 2012 [29].

<sup>1.</sup> This work is being conducted as part of CNA's Historic Fleet Employment Database Project, sponsored by the Deputy Chief of Naval Operations for Operations, Plans, and Strategy (N3/N5).

After the overview, we discuss our changes to the database because of modifications to the Naval Vessel Register (NVR), the MSC Ship Inventory, and the Maritime Administration's (MARAD) National Defense Reserve Fleet (NDRF) Inventory between October 1 and December 31, 2012.

Finally, we present ship counts and inventory summaries as of December 31, 2012.

## **ISDB** overview

In this section, we present an overview of the Integrated Ship Database. We tell you where to find the database online and how to access it. Then we show how the Microsoft Excel database file is organized according to worksheet tabs for documentation, database navigation, data tables, and pivot tables for display and analysis.

## Accessing the database

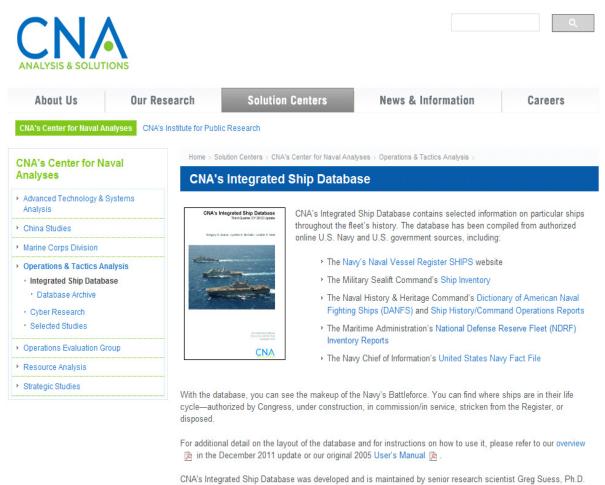
You can find all issues of the database on the Integrated Ship Database web page on CNA's web site (<a href="www.cna.org">www.cna.org</a>). The specific address for the main page for the database is at <a href="http://www.cna.org/centers/operations-tactics/ship-database">http://www.cna.org/centers/operations-tactics/ship-database</a> [30]. Figure 1 illustrates the main page.<sup>2</sup>

Figure 2 is a view of the bottom portion of the main page. It contains a list of the database products for calendar years 2012 and 2013, a link to the Database Archive, and a list of our data source organizations and respective means of contact.

Figure 3 shows the top portion of the Database Archive web page. Here you will find all our database products between September 2005 and December 2011.

<sup>2.</sup> Figures 1-3 present these web pages as of the time that this document was prepared. We update the ISDB web pages periodically, so depending on when you access the website, you may find some differences in details.

Figure 1. Main web page for the Integrated Ship Database



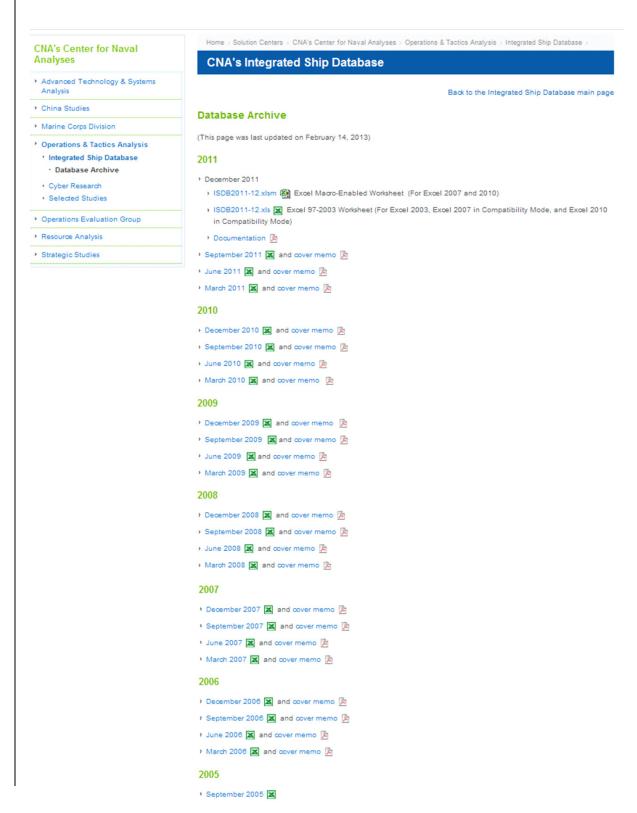
(703.824.2231) and associate advisor Lynette McClain (703.824.2855). If you have any questions, please contact us. We also welcome your thoughts and suggestions on improvements in this product.

Figure 2. Lower section of the main database page

## 2013 September 2013 и ISDB2013-09.xlsm 🖓 June 2013 и ISDB2013-06.xlsm 🖓 March 2013 2012 December 2012 и ISDB2012-12.xlsm 🔊 September 2012 × ISDB2012-09.xlsm 📳 \* Documentation 🎘 (CNA Interactive Software DIS-2013-U-005782-Final) June 2012 \* ISDB2012-08.xlsm 📓 Excel Macro-Enabled Worksheet (For Excel 2007 and 2010) и ISDB2012-08.xls 🕱 Excel 97-2003 Worksheet (For Excel 2003, Excel 2007 in Compatibility Mode, and Excel 2010 in Compatibility Mode) × Documentation 🎉 (CNA Interactive Software DIS-2012-U-003585-Final) March 2012 и ISDB2012-03.xlsm 🖓 и ISDB2012-03.xls 🔀 **Database Archive** N Click here to view database updates from 2005 to 2011 (This page was last updated on January 14, 2014) **Data Sources**

- \* Naval Vessel Register
  NFSH\_NNSY\_NVR\_CUSTODIAN@NAVY.MIL
- \* U.S. Navy Fact File Marie Tillery 202.433.0572
- National Defense Reserve Fleet Inventory Barbara Voulgaris
- Military Sealift Command Ship Inventory Kevin Mabon 202.685.5319
- Naval History and Heritage Command Dan Jones 202.433.6801

Figure 3. The Database Archive web page



## Organization of the ISDB file

#### The Document tab

Upon opening the database file, you will see the view in figure 4. The graphic of the document cover contains an associated hyperlink for immediate access to the documentation. Double-click the graphic and the pdf document will immediately open, if suitable pdf-read software is installed on your computer.

The Document tab is the first of ten tabs in the file. You can see the tabs at the bottom of the sheet.

#### The Directory tab

Figure 5 shows the next tab in the file—the Directory tab. The Directory helps you navigate to the various tabs in the database.

### **DataTableOriginal**

The DataTableOriginal tab contains all the data. See figure 6 for a view of the top portion of the sheet. The rows in the sheet are the records of the database, one row for each ship hull unit. The columns are the database fields.

#### The records

We have colored the records in the database to depict the various Status categories:

- 4 1 1 10	
Authorized for construction	
• Under construction	
• Active	
Naval Reserve Force, Active	
• Special, miscellaneous	
• In reserve	
• Leased or loaned	
• Stricken	

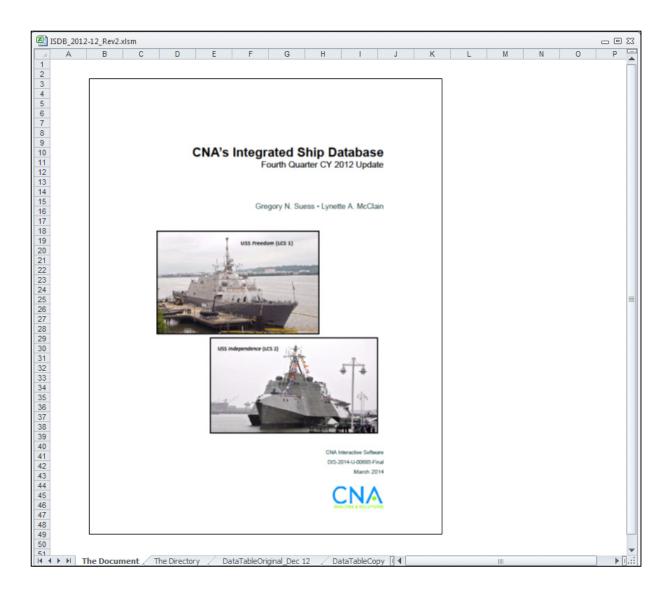
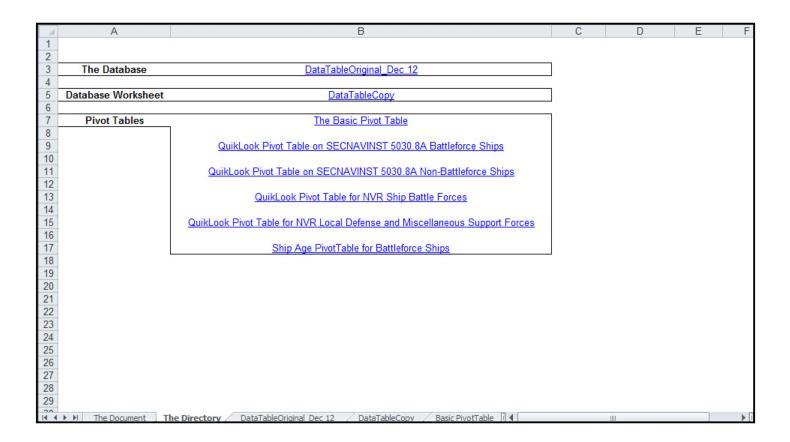


Figure 5. The Directory tab



d	A	В	С	D	E	F	G	Н	
1	Return to The Directory	Today is	Thursday	March 13, 2014					
2	Ship Name	Abbrev	Prefix	Hull No. (NVR Link)	NVR Type	UIC	Status	Date Status Change ▼	(Navy
3	JOHN FINN RALPH JOHNSON			DDG 113 DDG 114	DDG Guided Missile Destroyer	20010	Authorized, for US Navy construction	6/15/2011 9/26/2011	DDG 51 Destroyers DDG 51 Destroyers
+	RALPH JUHNSUN			DDG 114	DDG Guided Missile Destroyer	50125	Authorized, for US Navy construction	9/26/2011	DDG 51 Destroyers
5	RAFAEL PERALTA			DDG 115	DDG Guided Missile Destroyer	50126	Authorized, for US Navy construction	9/26/2011	DDG 51 Destroyers
	THOMASHUDNER			DDG 116	DDG Guided Missile Destroyer	50137	Authorized, for US Navy construction	2/28/2012	DDG 51 Destroyers
	MICHAEL MONSOOR			DDG 1001	DDG Guided Missile Destroyer	23189	Authorized, for US Navy construction	2/14/2008	DDG 1000 Destroyers
	LYNDON B JOHNSON			DDG 1002	DDG Guided Missile Destroyer	41163	Authorized, for US Navy construction	9/15/2011	DDG 1000 Destroyer
	MILVAUKEE			LCS5	LCS Littoral Combat Ship	20134	Authorized, for US Navy construction	12/29/2010	LCS Littoral Combat
)	JACKSON			LCS6	LCS Littoral Combat Ship	20135	Authorized, for US Navy construction	12/29/2010	LCS Littoral Comba
	MONTGOMERY			LCS8	LCS Littoral Combat Ship	20137	Authorized, for US Navy construction	3/17/2011	LCS Littoral Comba
	GABRIELLE GIFFORDS			LCS 10	LCS Littoral Combat Ship	20139	Authorized, for US Navy construction	3/16/2012	LCS Littoral Comba
	TRIPOLI			LHAZ	LHA Amphibious Assault Ship (General Purpose)		Authorized, for US Navy construction	5/31/2012	LHA 6 Amphibious /
	JOHN P MURTHA			LPD 26	LPD Amphibious Transport Dock	23182	Authorized, for US Navy construction	6/23/2009	LPD 17 Amphibious
	LEVIS B. PULLER			MLP3	MLP Mobile Landing Platform	41038	Authorized, for US Navy construction	2/26/2012	MLP 1 Mobile Landin
	JOHN VARNER			SSN 785	SSN Submarine (Nuclear-Powered)	20038	Authorized, for US Navy construction	12/22/2008	SSN 774 Attack Sub
	WASHINGTON			SSN 787	SSN Submarine (Nuclear-Powered)	20182	Authorized, for US Navy construction	12/22/2008	SSN 774 Attack Su
	ILLINOIS			SSN 786	SSN Submarine (Nuclear-Powered)	20181	Authorized, for US Navy construction	12/22/2008	SSN 774 Attack Sul
	COLORADO			SSN 788	SSN Submarine (Nuclear-Powered)	27150	Authorized, for US Navy construction	12/22/2008	SSN 774 Attack Su
1	INDIANA			SSN 789	SSN Submarine (Nuclear-Powered)	27151	Authorized, for US Navy construction	12/22/2008	SSN 774 Attack Su
	SOUTH DAKOTA			SSN 790	SSN Submarine (Nuclear-Powered)	27152	Authorized, for US Navy construction	12/22/2008	SSN 774 Attack Su
	DELAVARE			SSN 791	SSN Submarine (Nuclear-Powered)	27153	Authorized, for US Navy construction	12/22/2008	SSN 774 Attack Su
	FORTITUDE			JHSV3	JHSV Joint High Speed Vessel	29786	Authorized, for US Navy construction	1/28/2010	JHSV1 Joint High S
	FALL RIVER			JHSV 4	JHSV Joint High Speed Vessel	29787	Authorized, for US Navy construction	10/29/2010	JHSV1 Joint High S
	RESOLUTE			JHSV 5	JHSV Joint High Speed Vessel	29788	Authorized, for US Navy construction	10/29/2010	JHSV1 Joint High S
	NO NAME			JHSV6	JHSV Joint High Speed Vessel	29789	Authorized, for construction	6/30/2011	JHSV1 Joint High S
,	COURAGEOUS			JHSV 7	JHSV Joint High Speed Vessel	29790	Authorized, for construction	6/30/2011	JHSV1 Joint High S
8	NO NAME			LPD27	LPD Amphibious Transport Dock	3277A	Hull number assigned, authorized to be built, construction contract has not been awarded		LPD 17 Amphibious
9	NO NAME			AGS 66	AGS Surveying Ship	10544	Under construction in US by Navy, unassigned to fleet	2/1/2011	AGS 60 Oceanograp
	GERALD R. FORD			CVN 78	CVN Multi-Purpose Aircraft Carrier (Nuclear-Propulsion)	23173	Under construction in US by Navy, unassigned to fleet	11/14/2009	CVN 78 Aircraft Ca
	ZUMWALT			DDG 1000	DDG Guided Missile Destroyer	20121	Under construction in US by Navy, unassigned to fleet	2/11/2009	DDG 1000 Destroye
	CHOCTAV COUNTY			JHSV2	JHSV Joint High Speed Vessel	29785	Under construction in US by Navy, unassigned to fleet	9/13/2010	JHSV1 Joint High S
	CORONADO			LCS4	LCS Littoral Combat Ship	20131	Under construction in US by Navy, unassigned to fleet	12/17/2009	LCS Littoral Comb-
	DETROIT			LCS7	LCS Littoral Combat Ship	20136	Under construction in US by Navy, unassigned to fleet	11/8/2012	LCS Littoral Comb-
	AMERICA			LHA6	LHA Amphibious Assault Ship (General Purpose)	20103	Under construction in US by Navy, unassigned to fleet	12/8/2008	LHA 6 Amphibious
	SOMERSET	SOM		LPD 25	LPD Amphibious Transport Dock	23181	Under construction in US by Navy, unassigned to fleet	12/11/2009	LPD 17 Amphibious
	MONTFORD POINT			MLP1	MLP Mobile Landing Platform	41036	Under construction in US by Navy, unassigned to fleet	11/13/2012	MLP 1 Mobile Landi
	JOHN GLENN			MLP.2	MLP Mobile Landing Platform	41037	Under construction in US by Navy, unassigned to fleet	12/4/2012	MLP 1 Mobile Landi
		MIN		SSN 783	SSN Submarine (Nuclear-Powered)	20034	Under construction in US by Navy, unassigned to fleet	3/13/2007	SSN 774 Attack Su
)	NORTH DAKOTA		uee	SSN 784	SSN Submarine (Nuclear-Powered)	20037	Under construction in US by Navy, unassigned to fleet	5/11/2012	SSN 774 Attack Su
	CONSTITUTION PUEBLO	PBL	USS	"Old Ironsides" AGER 2	Other AGER Environmental Research Ship	01024 20256	Active, in commission Active, in commission	10/1/1971 5/13/1967	"Old Ironsides" AGER 2 Environme
	BUNKER HILL	PBL BKH	USS	CG 52	CG. Guided Missile Cruiser	21345	Active, in commission Active, in commission	9/20/1986	CG 47 Cruisers
	MOBILE BAY	MOB	USS	CG 53	CG Guided Missile Cruiser	21346	Active, in commission	2/21/1987	CG 47 Cruisers
	ANTIETAM	ANT	USS	CG 54	CG Guided Missile Cruiser	21387	Active, in commission	6/6/1987	CG 47 Cruisers
	LEYTE GULF	LTG	USS	CG 55	CG Guided Missile Cruiser	21388	Active, in commission	9/26/1987	CG 47 Cruisers
	SANJACINTO	SJA	USS	CG 56	CG Guided Missile Cruiser	21389	Active, in commission	1/23/1988	CG 47 Cruisers
	LAKE CHAMPLAIN	LKC	USS	CG 57	CG Guided Missile Cruiser	21428	Active, in commission	8/12/1988	CG 47 Cruisers
	PHILIPPINE SEA	PSE	USS	CG 58	CG Guided Missile Cruiser	21429	Active, in commission	3/18/1989	CG 47 Cruisers
	PRINCETON NORMANDY	PRN NOR.NMD	USS	CG 59 CG 60	CG Guided Missile Cruiser CG Guided Missile Cruiser	21447 21449	Active, in commission Active, in commission	2/11/1989	CG 47 Cruisers CG 47 Cruisers
	MONTEREY	NUR, NMU MTY	USS	CG 61	CG Guided Missile Cruiser CG Guided Missile Cruiser	21449	Active, in commission Active, in commission	6/16/1990	CG 47 Cruisers CG 47 Cruisers
	CHANCELLORSVILLE		USS	CG 62	CG Guided Missile Cruiser	21451	Active, in commission	11/4/1989	CG 47 Cruisers
	OF A STOCKED OF THE PERSON OF			AND DESCRIPTION OF THE PERSON	war arange a constitution of all and a second of a sec	61101	Treated to second lies (SA)	111 11 1000	Section Control of the Control of th

<ul> <li>Donated as museum, memorial</li> </ul>	
• Disposed	
• Lost, sunk	
Military Sealift Command	
• MARAD/NDRF	
<ul> <li>Hull number assigned, not built</li> </ul>	
• Reclassed	
• No NVR status	
<ul> <li>Historical from PMARS<sup>3</sup>, DANFS<sup>4</sup>, www.navy.mil</li> </ul>	

#### The fields

The ISDB is made up of 32 fields. They include:

- Ship Name
- Abbrev (for ship abbreviation, usually a trigraph)
- Prefix
- Hull number (with link to <a href="NVR web page">NVR web page</a>)
- NVR Type
- UIC (for Unit Identification Code)
- Status
- Date Status Changed
- Class (with link to Navy Fact File)
- NVR Force

<sup>3.</sup> PMARS: MARAD's Property Management and Archive Record System

<sup>4.</sup> DANFS: Dictionary of American Naval Fighting Ships from the Naval History and Heritage Command (NHHC)

- 5030.8A Force
- 5030.8A Ship Category
- 5030.8A Ship Classification
- 5030.8A Ship Type
- MSC Ship Link
- MSC Type (with link to MSC Program page, e.g. to <u>Sealift (PM5)</u> <u>page</u>)
- MARAD/NDRF Program-Type/Status (with link to NDRF page)
- DANFS Entry (with link to NHHC's DANFS ship page)
- Ship History Report (with link to <u>NHHC's Ship Histories/Command Operations Reports Index</u>)
- Homeport (with link to <u>NVR Homeport page</u>) as of the end of CY 2012
- Previous, Other Names
- Award Date
- Keel Date
- Launch Date
- Delivery Date
- Commission Date
- Age of the ship<sup>5</sup>
- Decommission/Out Of Action (OOA) Date
- Inactivation Date
- Stricken Date
- Date last updated
- Additional Comments, References

<sup>5.</sup> For commissioned ships, the age is the time between its delivery date and the latest date the Pivot Table was refreshed. For historical ships, the age is based on the delivery date and the decommission/OOA date. If either of these dates is unavailable, we use the commission date and/or the inactivation date, respectively.

### **DataTableCopy**

We have protected the DataTableOriginal page to prevent unintentional data changes and maintain configuration control. With page protection, however, Microsoft Excel inhibits some features.

By copying DataTableOriginal into the blank DataTableCopy, all features are available. With this table, you can modify the contents of DataTableOriginal to suit your needs, while preserving the data table in its original form on the DataTableOriginal sheet.

#### The Pivot Tables

We've used Excel Pivot Tables to display the contents of the database in several different summary forms. Pivot Tables enable you to examine the contents of the database at varying levels of specificity.

#### **BasicPivotTable**

As shown in figure 7, the Basic Pivot Table presents a view of the makeup of the entire ISDB. There, you can see the distribution of the 3,169 ship records by Ship Status Group.

To demonstrate the ease and flexibility of pivot tables in Excel, we present a sequence from the fully compressed Basic Pivot Table in figure 7 to a fully expanded view of the Active Status Group in figure 10.

First, we need to filter the table to present only the Active Status Group. Figure 8 shows the drop-down menu for column A with the Active Status Group selected.

Figure 9 then displays how to expand the compressed Active Status Group into the specific individual ship Status type, NVR Ship Type, Hull Number, and Ship Name. A right-click in the Status Group cell produces the drop-down menu with which the entire Status Group field can be expanded. Figure 10 is the top portion of the resulting expansion.

Figure 7. Basic Pivot Table

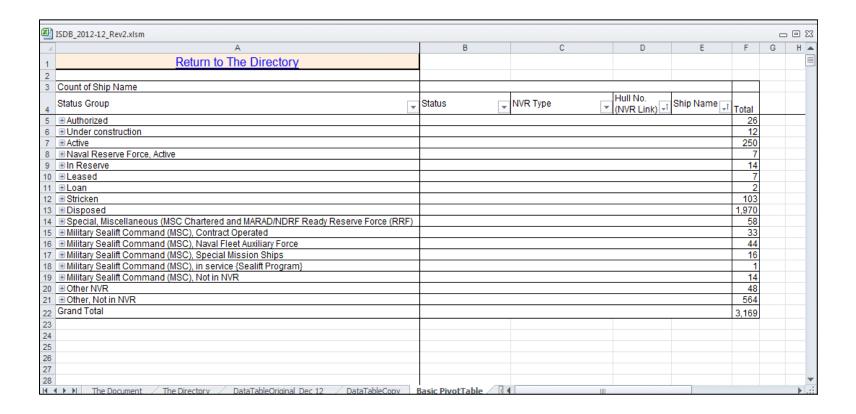
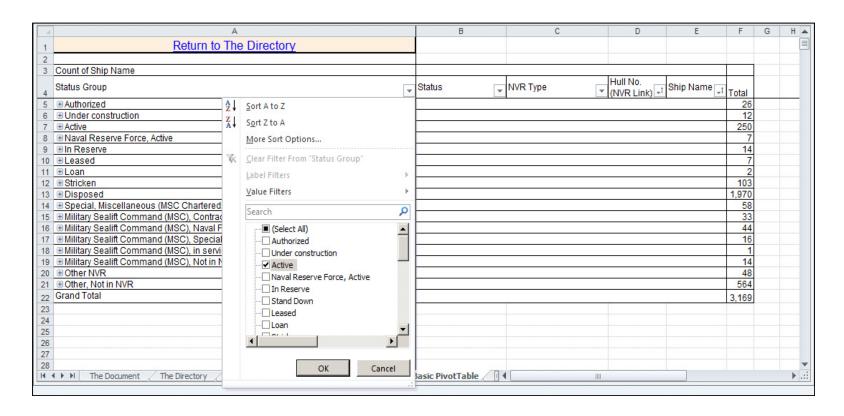


Figure 8. Filtering on the Active Status Group using column A drop-down menu



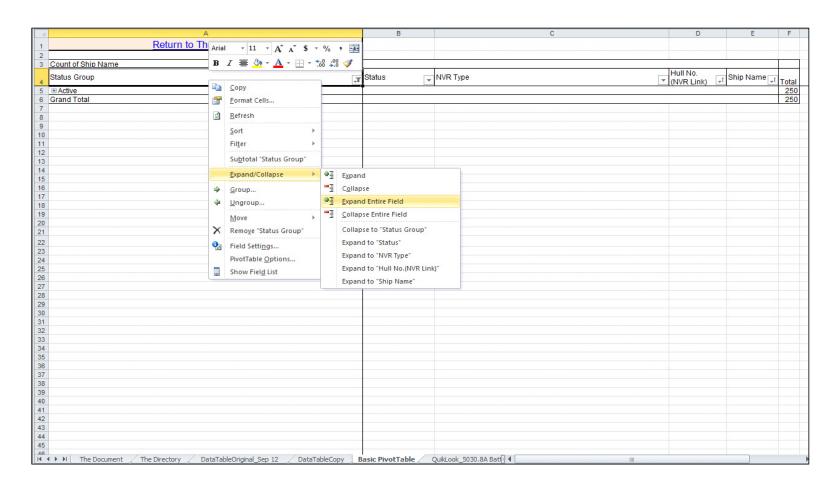


Figure 10. Top portion of fully expanded Basic Pivot Table

A	В	C	D	E	F
1 Return to The Directory					
2					
3 Count of Ship Name					$\neg$
			Hull No.		$\pm$
Status Group	-▼ Status	₩ NVR Type	▼ (NVR Link)	,† Ship Name	→ <sup>↑</sup> Total
5 Active	T T				
6		ission			243
7		□ AGER Environmental Research Ship			1
8		A SINGLE OF THE STATE OF THE ST	■ AGER 2	PUEBLO	1
9		⊕ CVN Multi-Purpose Aircraft Carrier (Nuclear-Propulsion)			11
10			■ CVN 65	ENTERPRISE	1
11			□ CVN 68	NIMITZ	1
12			■ CVN 69	DWIGHT D. EISENHOWER	1
13			□ CVN 70	CARL VINSON	1
14			■ CVN 71	THEODORE ROOSEVELT	1
15			□ CVN 72	ABRAHAM LINCOLN	1
16			■ CVN 73	GEORGE WASHINGTON	1
17			□ CVN 74	JOHN C. STENNIS	1
18			□ CVN 75	HARRY S. TRUMAN	1
19			□ CVN 76	RONALD REAGAN	1
20			□ CVN 77	GEORGE H. W. BUSH	1
21		⊕ CG Guided Missile Cruiser			22
22			⊕ CG 52	BUNKER HILL	1
23			⊕ CG 53	MOBILE BAY	1
24			⊕ CG 54	ANTIETAM	1
25			⊕ CG 55	LEYTE GULF	1
26			⊕ CG 56	SAN JACINTO	1
27			<b>B CG 57</b>	LAKE CHAMPLAIN	1
28			⊕ CG 58	PHILIPPINE SEA	1
29			□ CG 59	PRINCETON	1
30			⊕ CG 60	NORMANDY	1
31			■ CG 61	MONTEREY	1 1
32			□ CG 62	CHANCELLORSVILLE	1
33			■ CG 63	COWPENS	1
34			□ CG 64	GETTYSBURG	1
35			■ CG 65	CHOSIN	1
36			■ CG 66	HUE CITY	1
37			□ CG 67	SHILOH	1
38			■ CG 68	ANZIO	1
39			■ CG 69	VICKSBURG	1
40			□ CG 70	LAKE ERIE	1
41			□ CG 71	CAPE ST. GEORGE	1
42			□ CG 72	VELLA GULF	1
43			□ CG 73	PORT ROYAL	1
44					62
45			■ DDG 100	KIDD	1
46			⊕ DDG 101	GRIDLEY	1
47			⊕ DDG 102	SAMPSON	1
48			⊕ DDG 103	TRUXTUN	1
49			■ DDG 104	STERETT	1
↑ ♦ ▶ The Document / The Directory / DataTableOriginal Sep 12	DataTableCopy Basic Pivol	Table QuikLook 5030.8A Bat(	III		

#### The QuikLook Pivot Tables

The QuikLook Pivot Tables present the compositions and counts of ships according to two different conventions that define Navy, MSC, and NDRF forces.

The first convention is specified in the Secretary of the Navy's Instruction 5030.8A on *General Guidance for the Classification of Naval Vessels and Battleforce Ship Counting* [31]. At the highest level, Instruction 5030.8A distinguishes between Battleforce and Non-Battleforce ships.

The second convention is that used by the Naval Vessel Register in its database field named "Force." This convention was formerly used for Navy budgeting, planning, and programming [32]. At the highest level, ships are assigned to either the Ship Battle Forces<sup>6</sup> or to the Local Defense and Miscellaneous Support Forces.

*QuikLook\_5030.8A Battleforce.* Figure 11 shows the composition of the 5030.8A Battleforce by Ship Category, Ship Classification, and Ship Type as defined in this Instruction.

*QuikLook\_NVR Ship Battle Force*. The makeup of the NVR Ship Battle Force is by NVR Force, Status Group, Status, and Ship Type, as shown in figure 12.

*Quiklook 5030.8A Non-Battleforce.* Figure 13 shows the organization of the Non-Battleforce ships according to the 5030.8A Instruction in this Pivot Table.

QuikLook\_NVRLocDef&MiscSptForce. The composition of the Local Defense and Miscellaneous Support Forces of the NVR convention is displayed in figure 14.

<sup>6.</sup> Over the years, the term, "Battle Force," has been defined differently and has taken different forms (as in the previous paragraph, "Battle-force") in the various ship classification and counting schemes. To emphasize the existence of these differences and hopefully minimize ambiguity, we retain the forms used in the respective source documents cited here.

Figure 11. Composition of the 5030.8A Battleforce by ship classification and ship type as displayed in the *QuikLook\_5030.8A Battleforce* Pivot Table

	Δ	В	С	D E F	G
	Return to The Directory		0	FOR NVR'S CURRENT PAGE ON SHIP BATTLE FORCES, CLICK HERE	
1	Return to the Directory			TOR HAN 3 CONNENT PAGE ON SHIP DATTEL FORCES, CETCH HERE	
2	Count of Ship Name				$\rightarrow$
4		5030.8A Ship Category J	EDOOD DA CLIS CLISTOS STORE	* 5030.8A Ship Type	I Taral
<u> </u>	Battleforce   □ Battleforce	© Combatant Ship	SWarship/Aircraft Carrier	Substitution and the substitution are substitution and substitution and substitution are substitution and substitution are substitutional are substitutional and substitution are substitutional are	_ Total 10
5	□ Dattlerorce	□ Compatant Ship	WarshiprAircraft Carrier	⊕ Conventional Take Off and Landing Aircraft Carriers/Multi-purpose Aircraft Carrier (nuclear-powered)	10
5			■ Warship/Surface Combatant	Conventional Lake Off and Landing Afforart Carriers (Multi-purpose Afforart Carrier (Nuclear-powered)	109
1			warshiprourrace Comparant	Cruisers/Guided Missile Cruiser	22
9				B Destrovers/Guided Missile Destrover	62
10				Frigates/Guided Missile Destroyer      Frigates/Guided Missile Frigate	22
10				B Littoral Combat Ship/Littoral Combat Ship	3
12			■ Warship/Submarine	School Compart Shiph Charles Compart Ship	72
12			warshiproubmanne	Attack Submarines/Submarine (nuclear-powered)	54
13				Ballistic Missile Submarines/Ballistic Missile Submarine (nuclear-powered)	14
15				Gailette Missile Submarines/Guided Missile Submarine (nuclear-powered)      Guided Missile Submarines/Guided Missile Submarine (nuclear-powered)	14
10			■ Warship/Amphibious Warfare	Guided missile Submarinesrouided missile Submarine (nuclear-powered)	30
17			warshipiAniphiblous warrare	Amphibious Helicopter and Landing Craft Carriers/Amphibious Assault Ship (general purpose)	1
18				Mamphibious Helicopter and Landing Craft Carriers/Amphibious Assault Ship (multi-purpose)      Mamphibious Helicopter and Landing Craft Carriers/Amphibious Assault Ship (multi-purpose)	+ ;
19				Manipribious Helicopter and Landing Craft Carriers/Amphibious Transport Dock      Manphibious Helicopter and Landing Craft Carriers/Amphibious Transport Dock	<del>   </del>
20				Maniprilibrous relicopted and Carnoling Chart Carners Amprilibrous Transport book     Landing Craft Carriers/Dock Landing Ship	12
21			■ Other Combatant/Combat Logistics	*Earluing crark carriers book Earluing Grip	34
22			B Other Combatanti Combat Logistics	⊕ Underway Replenishment/lFast Combat Support Ship	1 34
23				Underway Replenishment/Ammunition Ship     Underway Replenishment/Ammunition Ship	+ 7
24				Underway Replenishment/Dry Cargo and Ammunition Ship	14
25				Underway Replenishment/Oiler	15
26			⊕ Other Combatant/Fleet Support	© Orderway nepienismientroller	19
27			B Other Combatantin leet Support	Command/Command Ship	1 2
28				® Fleet Ocean Tugs/Fleet Ocean Tugs	1 4
29				Material Support/Submarine Tender	1 3
30				Salvage Ships/Salvage Ships	1 4
31				Surveillance/Surveillance	+ + + + + + + + + + + + + + + + + + + +
32				Seabasing Support/Afloat Forward Staging Base (Interim)	+ 1
33				® Sea Base Connector/Joint High Speed Vessel	+ 1
34			■ Other Combatant/Mine Warfare Type Ships		14
35				Mine Countermeasures Ships/Mine Countermeasures Ship  Mine Countermeasures Ships/Mine Countermeasures Ship	14
36		Combatant Ship Total			288
	Grand Total				288
38					
39					
40					
41					
14	The Directory	DataTableOriginal Dec 12	DataTableCopy Basic PivotTable	QuikLook 5030.8A Battleforce Q 4 IIII	

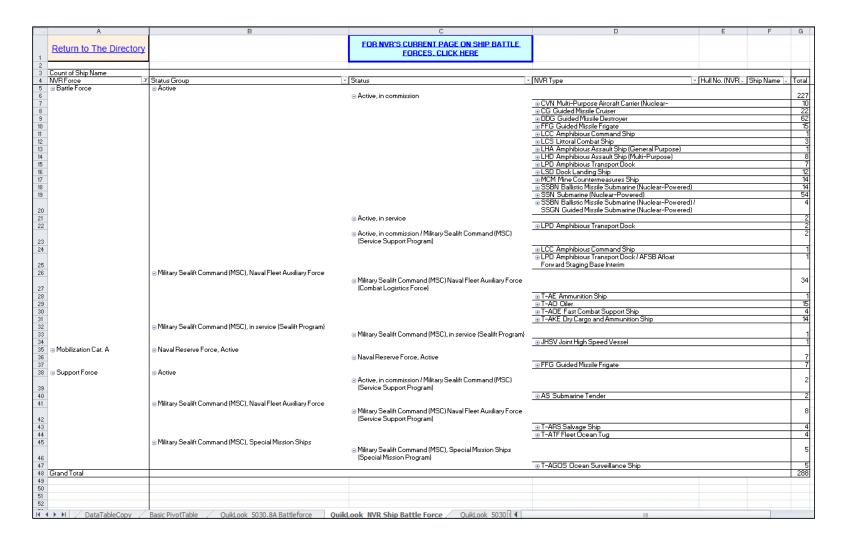
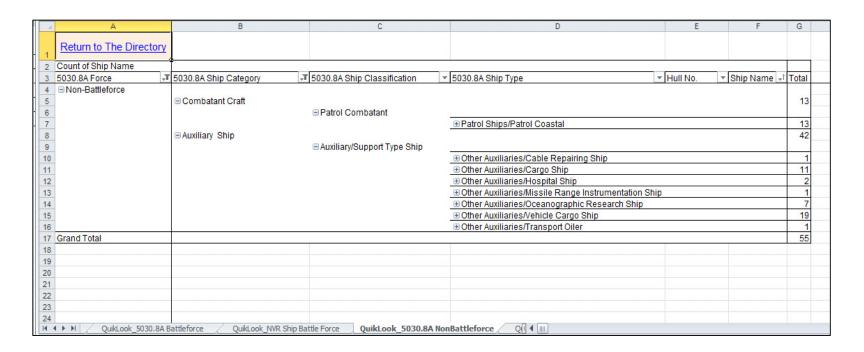


Figure 13. 5030.8A Non-Battleforce composition as displayed in the QuikLook\_5030.8A NonBattleForce Pivot Table



A		В	С	D	E	F	
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Count of Ship Name	$\rightarrow$						+
NVR Force		Status Group	→ Status	NVR Type	Hull No.	OL: N-	
	ΨĪ		Jiaids	NVN Type	(NVR Link)	Ship Name 🛫	4
■ Auxiliary		■ Active	⊕ Active, in commission				
			a Active, in continussion	PC Patrol Coastal			+
		■ Military Sealift Command (MSC), Naval Fleet Auxiliary Force		010101000000			_
		, , , , , , , , , , , , , , , , , , , ,	■ Military Sealift Command (MSC) Naval Fleet Auxiliary Force (Service Support Program)				
				<ul> <li>T-ARC Cable Repairing Ship</li> </ul>			_
		■ Military Sealift Command (MSC), Special Mission Support					
			Military Sealift Command (MSC), Special Mission Ships (Special Mission Program)	1 <u>.1 8000000000000000000000000000000000000</u>			
				■ T-AGS Surveying Ship	O1 -		_
- Out		- Mile C I/6 C		■ T-AGM Missile Range Instrumentation	Ship		_
Strategic Sealift	- 1	■ Military Sealift Command (MSC), Naval Fleet Auxiliary Force	■ Military Sealift Command (MSC) Naval Fleet Auxiliary Force (Service Support Program)				
			a ninkary seam command (noc) wavan leet Auxillary Force (service support Program)	T-AH Hospital Ship			-
		■ Special, Miscellaneous		- Triffic producting			_
			<ul> <li>Special, chartered by MSC, listed here as part of the U.S. Navy Ship Forces.</li> </ul>				
			{Prepositioning Program}				
				AK Cargo Ship			_
			-0 -1 - 1 - 10 - 10 - 11	AG Miscellaneous			_
			<ul> <li>Special, chartered by MSC, listed here as part of the U.S. Navy Ship Forces. {Sealift Pro</li> </ul>				_
			Special, MARAD titled ship, assigned to the Ready Reserve Force (RRF), listed here as	AK Cargo Ship			_
			part of the U.S. Navy Ship Forces. {Prepositioning Program}				
			part of the 0.5. Navy Ship Folces, prieposition in quantity	AVB Aviation Logistic Support Ship			-
			<ul> <li>Special, MARAD titled ship, assigned to the Ready Reserve Force (RRF), listed here as</li> </ul>				_
			part of the U.S. Navy Ship Forces. {Sealift Program}	0			
				■ ACS Auxiliary Crane Ship			
				AK Cargo Ship			_
				AKR Vehicle Cargo Ship     AOT Transport Oiler			_
			Special, MARAD titled ship, assigned to the Ready Reserve Force (RRF), listed here as	AUT Transport Ulier			_
			part of the U.S. Navy Ship Forces / Former MSC				
			part of the c.c. Navy only Folces it officer Picco	AK Cargo Ship			_
		■ Military Sealift Command (MSC), Contract Operated					
			■ Military Sealift Command (MSC), in service, contract operated {Prepositioning Program}				
				■ T-AK Cargo Ship			_
				■ T-AKR Vehicle Cargo Ship			_
			- Miles	■ T-AOT Transport Oiler			_
			■ Military Sealift Command (MSC), in service, contract operated {Sealift Program}	■ T-AKR Vehicle Cargo Ship			_
		■ Disposed		© 1 His 1 Verilole Calgo Ship			_
			■ Disposed of by Navy title transfer to the Maritime Administration				
				AOT Transport Oiler			_
Grand Total							_
							_

#### **ShipAge Pivot Table**

The final pivot table in the data file is named *ShipAge Pivot Table*. You can see the opening view of the table in figure 15. This table presents the age-of-ship data for Battleforce ships, organized using the 5030.8A ship-type groups. The ages displayed upon opening the file are either: (1) the ages computed as of the date when the database was finalized, or (2) the ages as of the last "Refresh" of the Pivot Table.

To refresh the ship age calculation, you can right-click anywhere on the table and select "Refresh." Or you can go to the Data tab in the menu bar and use the "Refresh All" button. Refreshing the age calculations will not account for decommissionings that may have occurred since the end of CY 2012.

The pivot table shows the number of ships within each group, the average age of ships in the group, the age of the oldest ship, and the age of the newest ship delivered.

Figure 15. View of the Ship-Age Pivot Table

				В		Feet Property of the Control of the	G			U	K
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	Directory										
ŀ	Directory										
H					-			Data			
h	5030.8A Force —	5030.8A Ship Categor	5030.8A Ship Classification	5030.8A Ship Type	Hull No.	- Ship Name	Delivery Date		Average of Age	May of Ago	Min of 0 a
	JUSUS ON FOICE	3030.0A Ship Catego	3030.0M Ship classification	Josof Ship Type	(NVR Link)		The inverse A	Countrollage	nverage or nge	man of Age	MILITORMS
	■ Battleforce	■ Combatant Ship	■ Warship/Aircraft Carrier	⊕ Conventional Take Off and Landing Aircraft Carriers/Multi-	((44) (Ellik)			10	22.9	38.8	4.7
	- Dameroroe	g comparant or up	8 ir disriipir iirordik odiner	purpose Aircraft Carrier (nuclear-powered)					LL.U	00.0	9793
			Warship/Aircraft Carrier Total	purpose in the same (interest per sites)				10	22.9	38.8	4.7
			■ Warship/Surface Combatant	⊕ Cruisers/Guided Missile Cruiser				22	23.7	27.5	19.7
2				■ Destroyers/Guided Missile Destroyer				62	12.8	22.7	1.7
				● Frigates/Guided Missile Frigate				22	28.9	31.0	24.5
			oes es mours on or	■ Littoral Combat Ship/Littoral Combat Ship				3	3.7	5.3	1.6
			Warship/Surface Combatant					109	18.0	31.0	1.6
			■ Warship/Submarine	⊕ Attack Submarines/Submarine (nuclear-powered)				54	21.1	32.9	1.7
				Ballistic Missile Submarines/Ballistic Missile Submarine				14	23.1	29.3	16.4
				(nuclear-powered)  Guided Missile Submarines/Guided Missile Submarine							
				Guided Missile Submarines/Guided Missile Submarine     (nuclear-powered)				4	31.1	32.2	30.0
				(nuclear-powered)				70	00.0	00.0	
			Warship/Submarine Total	Amphibious Helicopter and Landing Craft				72	22.0 33.8	32.9 33.8	1.7 33.8
			warshipramphiblous warrare	Carriers/Amphibious Assault Ship (general purpose)				1 1	33.0	33.0	33.0
				Amphibious Helicopter and Landing Craft				8	16.9	24.7	4.8
				Carriers/Amphibious Assault Ship (multi-purpose)				"	10.5	24.1	4.0
				Amphibious Helicopter and Landing Craft	+			9	10.0	45.2	1.1
				Carriers/Amphibious Transport Dock					10.0	40.2	1.1
				Landing Craft Carriers/Dock Landing Ship	1			12	22.6	29.0	15.9
)			Warship/Amphibious Warfare	© Landing Crart Camers Dook Landing Only				30	18.0	45.2	1.1
			□ Other Combatant/Combat	■ Underway Replenishment/Dry Cargo and Ammunition Ship	1			14	4.5	7.6	1.2
				■ Underway Replenishment//Fast Combat Support Ship				4	18.5	20.0	15.8
				■ Underway Replenishment/Ammunition Ship				1	42.2	42.2	42.2
				■ Underway Replenishment/Oiler				15	22.5	27.1	17.7
			Other Combatant/Combat					34	15.2	42.2	1.2
			Logistics Total								
5			⊕ Other Combatant/Fleet	⊕ Command/Command Ship				2	43.0	43.1	42.9
				Material Support/Submarine Tender				2	34.6	34.9	34.3
3				Salvage Ships/Salvage Ships				4	27.9	28.5	27.3
1				Fleet Ocean Tugs/Fleet Ocean Tugs     Surveillance/Surveillance	1			4	33.1 19.7	33.6 22.4	32.5 13.3
'				Seabasing Support/Afloat Forward Staging Base (Interim)	-			5	42.6	42.6	42.6
,				Sea Base Connector/Joint High Speed Vessel					1.1	1.1	1.1
-			Other Combatant/Fleet Support	Sea base connectonount night opeed vesser	<b>+</b>			19	28.5	43.1	1.1
3			Total					10	20.5	45.1	1.1
,			□ Other Combatant/Mine	Mine Countermeasures Ships/Mine Countermeasures Ship	+			14	22.4	26.4	19.5
			Warfare Type Ships	in the countennessares or ipstraine countennessares or ip				"	22.7	20.4	10.0
			Other Combatant/Mine Warfare					14	22.4	26.4	19.5
			Type Ships Total		I			1	E.E. 7	20.4	10.0
	ŀ	Combatant Ship Total	1.75		<del>                                     </del>			288	19.7	45.2	1.1
Ī	Grand Total					117		288	19.7	45.2	1.1
r											
1											
)											
2											

## Changes in database content for this quarter

#### Routine update of source data

We modified the database to account for the changes in our three major data sources through the quarter. As mentioned earlier, our sources include: (1) the NVR [33], (2) MSC's Ship Inventory [34], and (3) MARAD's NDRF Inventory [35].

We obtained the data from NVR by email [36], from MSC's Ship Inventory "Show changes" web site [37], and from MARAD's monthly reports on the NDRF Inventory [38–40].

#### Removal of duplicate records for same ship hull

In previous versions of the database, we included duplicate records for ships that had been reclassed or redesignated. For instance, four ballistic-missile submarines (USS *Ohio* (SSBN 726), USS *Michigan* (SSBN 727, USS *Florida* (SSBN 728), and USS *Georgia* (SSBN 729) were converted to guided-missile submarines and appropriately redesignated as SSGNs while retaining the same hull numbers.

Before, we followed the custom of the Naval Vessel Register which has duplicate pages for these submarines, one each for their designations as SSBNs and one for their SSGN designation. We merged these duplicate records into single records to remove the possibility of double counting. For instance, the hull number for USS *Ohio* now reads as "SSBN 726 / SSGN 726" and the ship type is now "SSBN Ballistic Missile Submarine (Nuclear-Powered) / SSGN Guided Missile Submarine (Nuclear-Powered)."

## **Inactive hyperlinks**

In preparing this update, we found a number of hyperlinks that were no longer active. Among these were links to MSC pages for MARAD's Ready Reserve Force ships. MSC no longer includes these ships in its Ship Inventory. Consequently, we removed these links.

In addition, we discovered that links to carrier and battleship pages in the Navy Fact File were inactive because the link addresses had been changed. We updated the inactive hyperlink addresses to the new active addresses.

### **Changes in the ship forces**

#### SECNAVINST 5030.8A Battleforce increases to 288 ships

During the fourth quarter of 2012, the number of ships in the Battle-force as defined in SECVNAVINST 5030.8A increased from 287 to 288 ships [41]. Three ships were delivered to the Navy and MSC: USNS *Cesar Chavez* (T-AKE 14) on October 17; USNS *Spearhead* (T-JHSV 1) on December 5; and PCU *Arlington* (LPD 24) on December 7. And two ships were decommissioned: USS *Crommelin* (FFG 37) on October 31 and USS *Enterprise* (CVN 65) on December 1.

Figure 11 shows the composition of the Battleforce at the end of the quarter by the classification scheme in the 5030.8A Instruction.

We verified the count and the changes against the Navy Operations Center's "OPNOTES/Worldwide Navy Distribution" and "CNO's Current Ops Brief" products [41].

#### **NVR Ship Battle Forces at 288 ships**

The composition of the Ship Battle Forces according to NVR's ship classification system as presented in ISDB's *Quiklook\_NVR Ship Battle Force* Pivot Table is shown in figure 12. The ships included here are the same as in the 5030.8A Battleforce. But the two ship classification schemes are different. A comparison of the two systems can be found in the documentation accompanying the December 2011 ISDB update [25].

#### SECNAVINST 5030.8A Non-Battleforce ship count at 55

During the third quarter the Navy's Non-Battleforce fleet was unchanged. The makeup of the force from our *QuikLook\_5030.8A\_NonBattleForce* Pivot Table is shown in figure 13.

Our data are consistent with the Navy Ship Annual Supplemental Data Tables (SASDT) of June 2012 [42] and July 2013 [43].

#### NVR Local Defense and Miscellaneous Support Forces at 114 ships

According to the NVR's classification scheme, ships not in the Ship Battle Forces may fall into its Local Defense and Miscellaneous Support Forces organization. The ships in these forces include the ships in the 5030.8A Non-Battleforce. They also include ships in the Ready Reserve Force, reported in MARAD's National Defense Reserve Fleet Inventory reports. Figure 14 shows the makeup of these forces from our <code>Quiklook\_NVRLocDef&MiscSptForce</code> Pivot Table.

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## **Glossary**

DANFS Dictionary of American Naval Fighting Ships

ISDB Integrated Ship Database

MARAD Maritime Administration

MSC Military Sealift Command

NAVSEA Naval Sea Systems Command

NAVSHIPSO NAVSEA Shipbuilding Support Office

NDRF National Defense Reserve Fleet

NHHC Naval History and Heritage Command

NVR Naval Vessel Register

OOA Out of action

PCU Pre-Commissioning Unit

PMARS Property Management and Archive Record

System

RRF Ready Reserve Force

SASDT Ship Annual Supplemental Data Table

Ship and Aircraft Supplemental Data Table

SECNAVINST Secretary of the Navy Instruction

UIC Unit Identification Code

USNS United States Naval Ship

USS United States Ship

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