



DEPARTMENT OF THE NAVY

**COOPERATIVE RESEARCH AND
DEVELOPMENT AGREEMENTS
ANNUAL REPORT**

FISCAL YEAR 2015

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Technology Transfer Program Office
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Listing of Acronyms

CRADA	Cooperative Research and Development Agreement
DoN	Department of the Navy
FY	Fiscal Year
IHEODTECHDIV	Indian Head Explosive Ordnance Disposal Technology Division
LP-CRADA	Limited Purpose-CRADA
MEMS	Micro-Electromechanical Systems
NAVMETOCCOM	Naval Meteorology and Oceanography Command
NDTTIS	Navy Defense Technology Transfer Information System
NSWC	Naval Surface Warfare Center
PIA	Partnership Intermediary Agreement
PO	Program Office
R&D	Research and Development
Std/Non-Std	Standard/Non-Standard
T2	Technology Transfer
TA-CRADA	Technical Assistance-CRADA

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Introduction

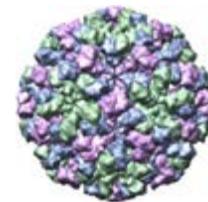
Department of the Navy (DoN) Cooperative Research and Development Agreements (CRADAs) are legal agreements between a DoN Research and Development (R&D) laboratory and one or more non-federal partners to conduct joint R&D efforts in a given technical area consistent with the laboratory's mission and to share technical results derived from the joint effort. CRADA partners can save money and valuable time in achieving mutually desirable results. A non-federal partner can provide facilities, equipment, personnel, and funding to the CRADA. The DoN laboratory can provide the same resources with the exception of funding to the non-federal partner. This report summarizes DoN CRADA activity for Fiscal Year (FY) 2015 as well as a cumulative record of all DoN CRADA income and history from FY89 through FY15. Overall income from and participation in CRADAs since FY89 are summarized in Appendix A. DoN laboratories that have reported 10 or more CRADAs in FY89 through FY15 have individual income and history bar charts listed in Appendix B. A listing of the CRADA non-federal partner and subject for each FY15 CRADA is provided in Appendix C.

CRADAs are valuable mechanisms to strengthen the United States industrial base by transferring technology developed in the DoN to the private sector. In addition, the transfer and acceptance of commercial off-the-shelf technology for government use can reduce the cost of items purchased by the federal government. Benefits, other than direct cash funding, result in the cost savings accrued as the result of leveraging the personnel, technical competence, facilities, equipment, and property of the other partner(s) to achieve a specific technology development. This benefit is termed "cost avoidance." It is the additional cost in labor, facilities, equipment, and property that a partner would have experienced in achieving the desired technology development had the partnership not been in place. Cost avoidance experienced by the individual partner(s) of a CRADA is usually different for each partner but is sufficient to cause the partner to become a member of the partnership. Cost avoidance is not documented but is an important consideration in each CRADA decision for both the DoN laboratory and the private partner.

The value to the DoN, as well as to the United States industrial base, can be demonstrated by the technologies listed below, which highlight a few recent CRADAs.

- Naval Medical Research and Development Command and Takeda Vaccines, Inc. entered into a CRADA to perform clinical testing using a single dose of Norovirus vaccine. Funding from this CRADA contributed to over one-half of the FY15 Navy CRADA income. Norovirus outbreaks seriously impact civilian and military adult populations. In addition to receiving a significant revenue stream from the CRADA, a single dose of the vaccine has the potential to reduce the severity of Norovirus infections. These infections cause 19-21 million illnesses annually and contribute to 56,000-71,000 hospitalizations and 570-800 deaths. Since there is a high incidence of the Norovirus affecting members of the military as well as the general population, this vaccine could help the U.S. military subjects return to duty quicker.

NOROVIRUS VACCINE



This joint effort performs clinical testing using a single dose Norovirus vaccine.

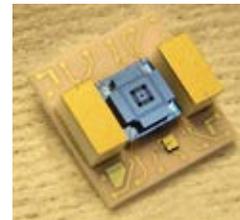
- Naval Surface Warfare Center (NSWC), Crane Division and GoXtudio entered into a CRADA to commercialize a patented technology for measuring power generated during legged locomotion. GoXtudio designs and develops wearable and robotic technologies. NSWC Crane developed technology has the potential to enhance the performance, quality of life, recreation and health of members of the military as well as the elderly, persons who are physically impaired, emergency professionals and athletes.
- Technology Transfer (T2) tools for the Space and Naval Warfare Systems Command, Systems Center Pacific developed ultra-high sensitivity optical Micro-Electromechanical Systems (MEMS) displacement sensor include a 2006 partially exclusive patent license agreement with Lumedyne Technologies Inc. for eight Navy owned patents, a CRADA with Lumedyne signed in 2007, and the utilization of a T2 Partnership Intermediary Agreement (PIA). The technology is used in high-end accelerometers to detect the magnitude and direction of movement and is ideal for guidance systems for aircraft, missiles, spacecraft, and in many common consumer electronics. The Navy will receive an estimated \$8.75 million in royalties over the life of the license. In June 2015, Lumedyne was acquired by a Fortune 500 company in the Bay Area for the use of its technology in driverless cars as well as other mobile devices that require sensors for guidance application.

LEGGED LOCOMOTION



Inspired by the muscle tendons in the ankle complex, GoXtudio is developing new wearables that enhance performance, mitigate injury, and improve function.

MEMS SENSOR



Revolutionary new MEMS sensor that is higher performing and at a lower cost than the current state of the art.

The DoN uses a standard CRADA format as well as two specialty CRADA formats: Technical Assistance (TA)-CRADA and Limited Purpose (LP)-CRADA. The TA-CRADA allows local companies to utilize a laboratory's facilities and technical expertise for a limited time (maximum four days) for a specific project. LP-CRADAs are restricted to the exchange of existing equipment or material that the collaborators need for their own research, development, test, evaluation, or engineering activities. There is no joint work performed under the LP-CRADA, but there is a mutual interest in the results. In Appendices A and B, TA-CRADAs are included in the LP-CRADA column.

Signature authority for DoN CRADAs was completely decentralized in FY00. The DoN T2 Program Office (PO) receives a copy of all signed CRADAs for inclusion into the Navy Defense Technology Transfer Information System (NDTTIS) database. The entire income for each CRADA, including amended sums from terminations and modifications, is credited to the year the original CRADA is received. As a result, CRADA income for a particular year may fluctuate up or down.

Other Technology Transfer Activity

The NDTTIS database captures information on other government funding, first responder technologies, and PIAs.

- The DoN received \$4.65M in FY15 from other government funding to support individual CRADAs. This includes funds from Small Business Innovation Research/Small Business Technology Transfer, grants, and contracts.
- In FY15, one CRADA was identified as a first responder technology from the Naval Postgraduate School. The non-federal partner was Inmarsat, Inc., and the CRADA subject was a Humanitarian Assistance and Disaster Relief Operations Study.
- A PIA is an agreement between the DoN and the agency of a State or local government or a nonprofit entity as defined in Section 3715 of Title 10, United States Code. It is used to allow the intermediary to identify new technologies in the private sector that can be utilized by the DoN to accelerate delivery of technological capabilities to the nation, and to help identify DoN technologies that can be licensed and commercialized. Table 1 details the PIAs entered into in FY15.

Table 1. FY15 Partnership Intermediary Agreements

Lab Name	Non-Federal Partner	Subject
Naval Meteorology and Oceanography Command (NAVMETOCOM)	Mississippi Enterprise for Technology, Inc.	PIA to Promote Cooperative Activities Between NAVMETOCOM and Other Federal Laboratories, Businesses and Educational Institutions Served by Mississippi Enterprise for Technology, Inc.
NSWC, Crane Division	Bloomington Economic Development Corporation	PIA to Promote Cooperative Activities Between NSWC, Crane Division and Small Business Firms and Educational Institutions Served by the Bloomington Economic Development Corporation
NSWC, Crane Division	University of Southern Indiana	PIA to Promote Cooperative Activities Between NSWC, Crane Division and Small Business Firms and Institutions Served by the University of Southern Indiana
NSWC, Indian Head Explosive Ordnance Disposal Technology Division (IHEODTECHDIV)	Energetics Technology, Inc.	PIA to Promote Cooperative Activities Between NSWC, IHEODTECHDIV and Small Business Firms and Educational Institutions Served by Energetics Technology, Inc.

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APPENDIX A

DoN CRADA Income and History Cumulative Record, FY89 through FY15

Table A-1. DoN CRADA Cumulative Record from FY89 through FY15

Lab Name	Cumulative Number of CRADAs
Fleet Readiness Center East	3
Fleet Readiness Center Southwest	5
Marine Corps Combat Development Command	2
*National Naval Medical Center	65
Naval Air Warfare Center	
Aircraft Division, Lakehurst	13
Aircraft Division, Patuxent River	188
Training Systems Division	54
Weapons Division, China Lake	246
Weapons Division, Point Mugu	52
Naval Aviation Depot	
Jacksonville	1
North Island	2
Naval Facilities Engineering and Expeditionary Warfare Center	32
Naval Medical Center	
Portsmouth	155
San Diego	277
Naval Medical Research and Development Command	876
Naval Meteorology and Oceanography Command	21
Naval Postgraduate School	277
Naval Research Laboratory	477
Naval Sea Systems Command	2
Naval Surface Warfare Center	
Carderock Division	188
Corona Division	2
Crane Division	119
Dahlgren Division	163
**Indian Head Explosive Ordnance Disposal Technology Division	195
Panama City Division	5
Port Hueneme Division	3
Naval Undersea Warfare Center	
Division Keyport	13
Division Newport	276
Naval War College	15
Navy Clothing and Textile Research Facility	7
Navy Disease Vector Ecology and Control Center	1
Navy Experimental Diving Unit	2
Office of Naval Research	11
Space and Naval Warfare Systems Command, Systems Center Atlantic	22
Space and Naval Warfare Systems Command, Systems Center Pacific	172
United States Atlantic Command	1
United States Naval Academy	52
United States Naval Observatory	1
TOTAL	3,996

* As of November 10, 2011, the Walter Reed National Military Medical Center was created from the National Naval Medical Center and the Walter Reed Army Medical Center. Due to the realignment, CRADAs from the National Naval Medical Center are no longer being reported to the DoN.

**As of February 28, 2013, the NSWC, Indian Head Division and the Naval Explosive Ordnance Disposal Technology Division were merged to form the NSWC, Indian Head Explosive Ordnance Disposal Technology Division (IHEODTECHDIV). The new Command, NSWC IHEODTECHDIV, retains the mission, functions, and technical capabilities of both organizations.

Table A-2. DoN CRADA History

Fiscal Year	CRADA Income*	Number of CRADAs Signed			
		Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$77,051,826	1,198	281	1,479	1,479
2004	\$16,223,011	159	40	199	1,678
2005	\$13,761,266	127	51	178	1,856
2006	\$17,685,070	149	45	194	2,050
2007	\$13,973,555	160	41	201	2,251
2008	\$9,222,720	147	51	198	2,449
2009	\$9,925,482	153	46	199	2,648
2010	\$19,455,768	174	48	222	2,870
2011	\$13,678,407	155	45	200	3,070
2012	\$17,323,616	141	51	192	3,262
2013	\$10,701,368	151	76	227	3,489
2014	\$18,160,941	169	77	246	3,735
2015	\$24,134,631	182	79	261	3,996

* The entire income for each CRADA is credited to the year that the CRADA was received at DoN T2 PO. Funds received under any amendments are allocated to the year the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

Table A-3. FY15 Amendments to CRADAs Received

Lab Name	Amendments Applied to Current Year CRADAs	Amendments Applied to Previous Year CRADAs
Naval Air Warfare Center Aircraft Division, Patuxent River		\$25,000
Naval Air Warfare Center Weapons Division, China Lake		\$25,000
Naval Air Warfare Center Weapons Division, Point Mugu		\$100,000
Naval Medical Center, Portsmouth	\$100,000	(\$9,000)
Naval Medical Center, San Diego		\$407,000
Naval Medical Research and Development Command	\$53,674	\$314,270
Naval Postgraduate School		\$100,000
Naval Research Laboratory		\$4,009,615
Naval Surface Warfare Center, Carderock Division		\$160,000
Naval Surface Warfare Center, Dahlgren Division		\$317,507
Naval Surface Warfare Center, Indian Head		
Explosive Ordnance Disposal Technology Division		\$4,356
Naval Undersea Warfare Center, Division Newport		\$250,000
United States Naval Academy	\$35,500	\$27,286
Totals	\$189,174	\$5,731,034

*Appendix A / DoN CRADA Income and History
Cumulative Record, FY89 through FY15*

The DoN has entered into 3,996 CRADAs and received \$261,297,661 from non-federal CRADA partners to support this work since 1989. These funds directly support ongoing research projects at the DoN laboratories. Income from new CRADAs signed in FY15 (\$23,945,457) as well as amendments to CRADAs signed in FY15 (\$189,174) totaled \$24,134,631 (see Table A-2). Amendments to CRADAs signed in previous years generated additional income in FY15 of \$5,731,034 (see Table A-3) for a grand total of FY15 income of \$29,865,665.

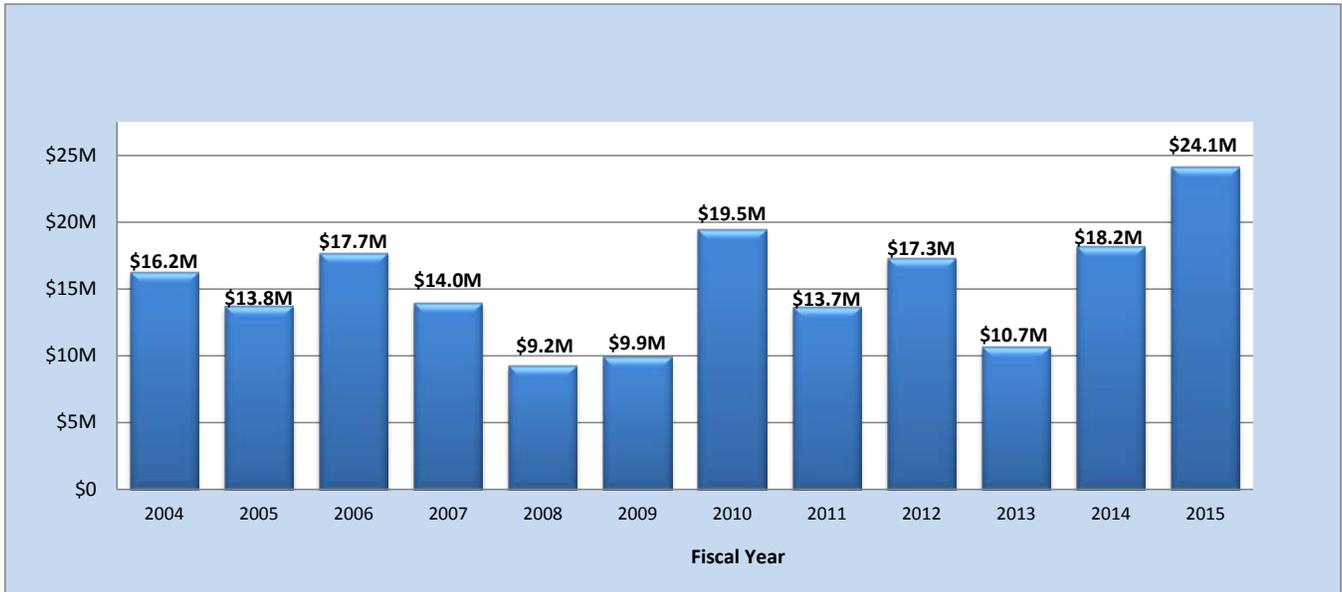


Figure A-1. DoN CRADA Income

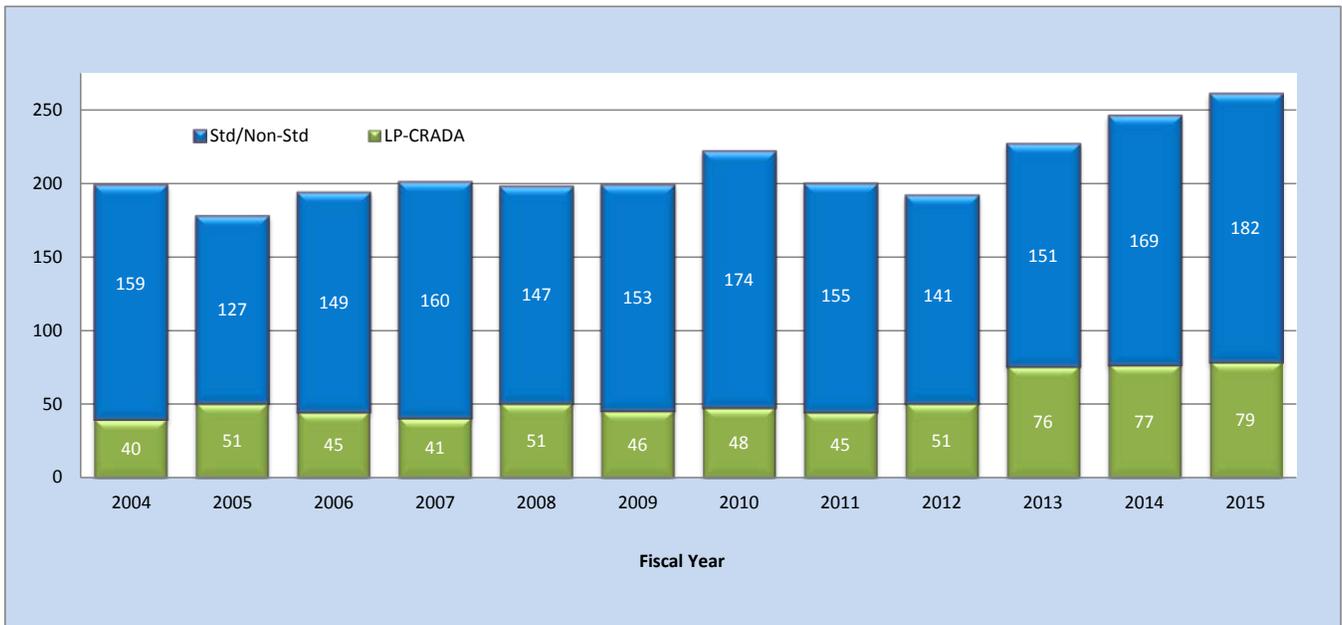


Figure A-2. Number of DoN CRADAs Signed



APPENDIX B

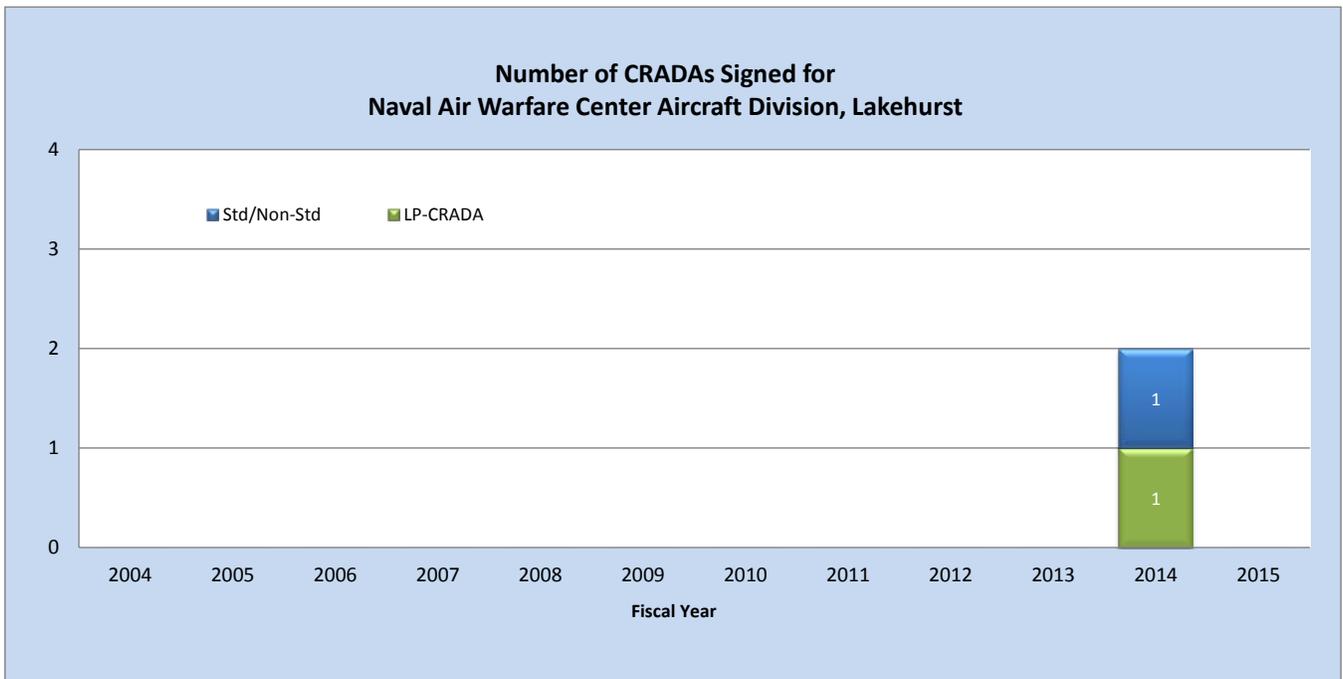
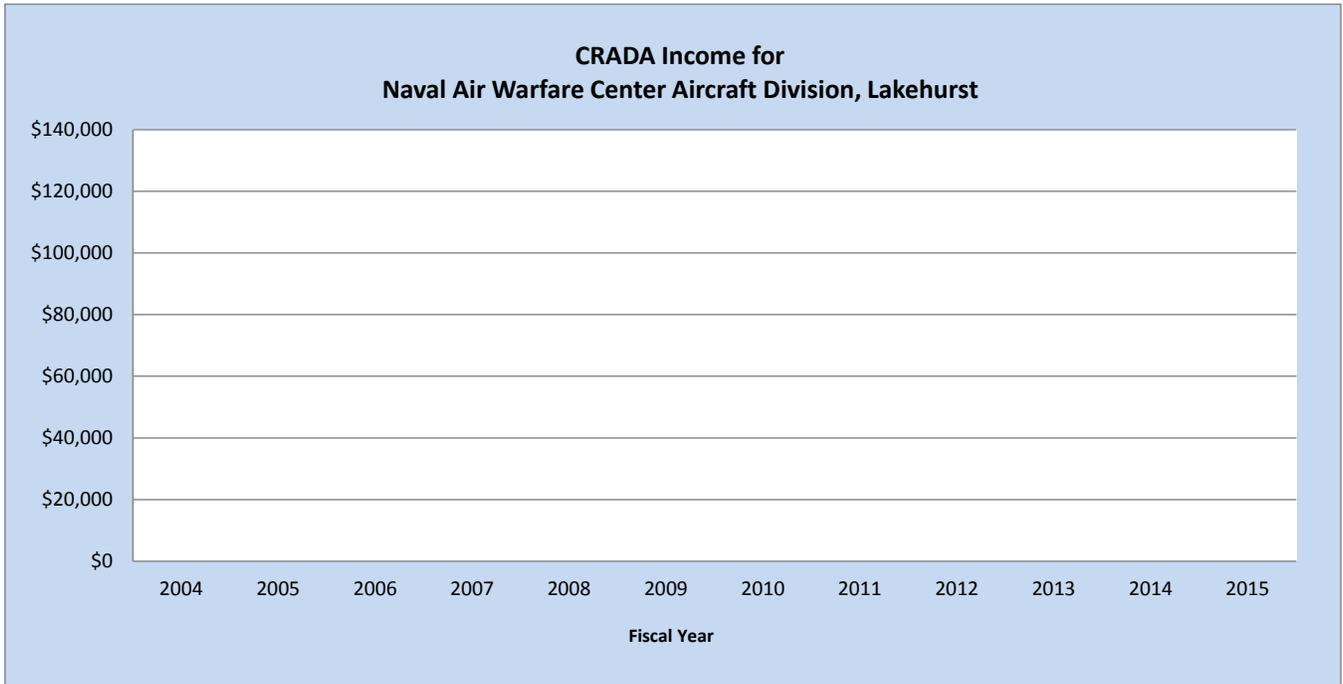
FY15 DoN CRADA Income and History by Laboratory

**CRADA History for
Naval Air Warfare Center Aircraft Division, Lakehurst**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$398,300		11	-	11	11
2004	\$0		-	-	-	11
2005	\$0		-	-	-	11
2006	\$0		-	-	-	11
2007	\$0		-	-	-	11
2008	\$0		-	-	-	11
2009	\$0		-	-	-	11
2010	\$0		-	-	-	11
2011	\$0		-	-	-	11
2012	\$0		-	-	-	11
2013	\$0		-	-	-	11
2014	\$0		1	1	2	13
2015	\$0		-	-	-	13

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

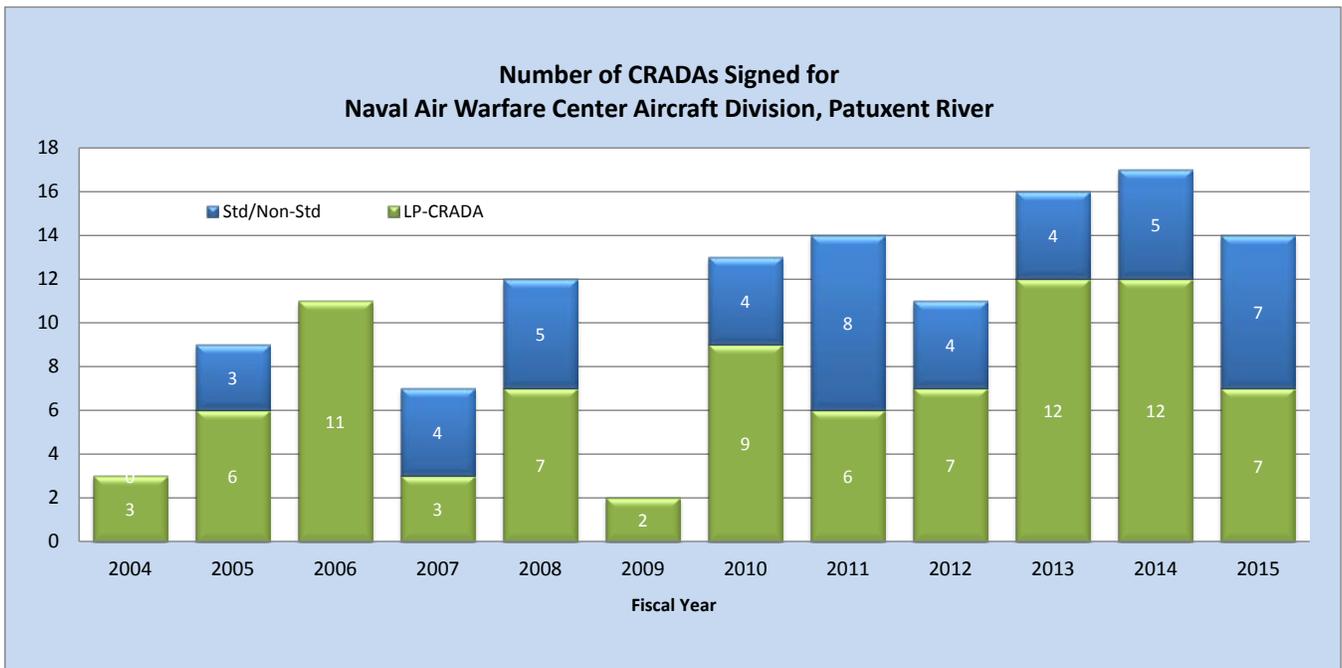
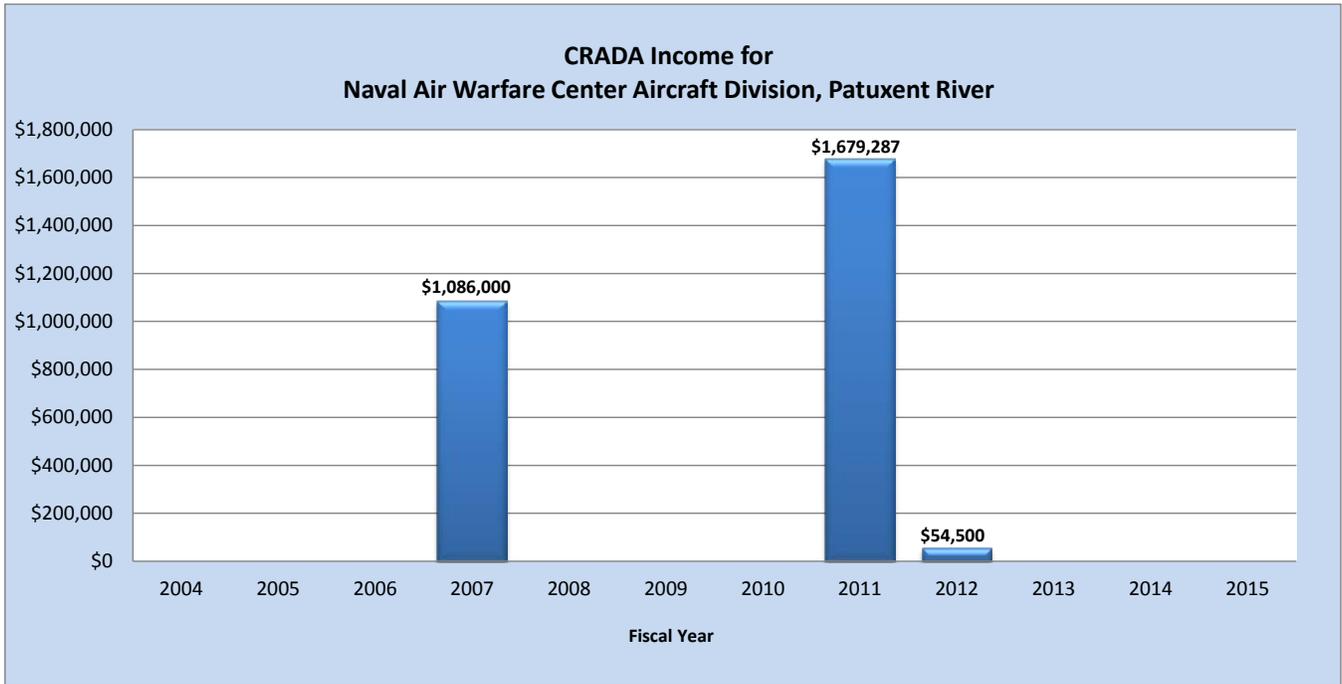


**CRADA History for
Naval Air Warfare Center Aircraft Division, Patuxent River**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$2,074,910		52	7	59	59
2004	\$0		-	3	3	62
2005	\$0		3	6	9	71
2006	\$0		-	11	11	82
2007	\$1,086,000		4	3	7	89
2008	\$0		5	7	12	101
2009	\$0		-	2	2	103
2010	\$0		4	9	13	116
2011	\$1,679,287	\$25,000	8	6	14	130
2012	\$54,500		4	7	11	141
2013	\$0		4	12	16	157
2014	\$0		5	12	17	174
2015	\$0		7	7	14	188

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

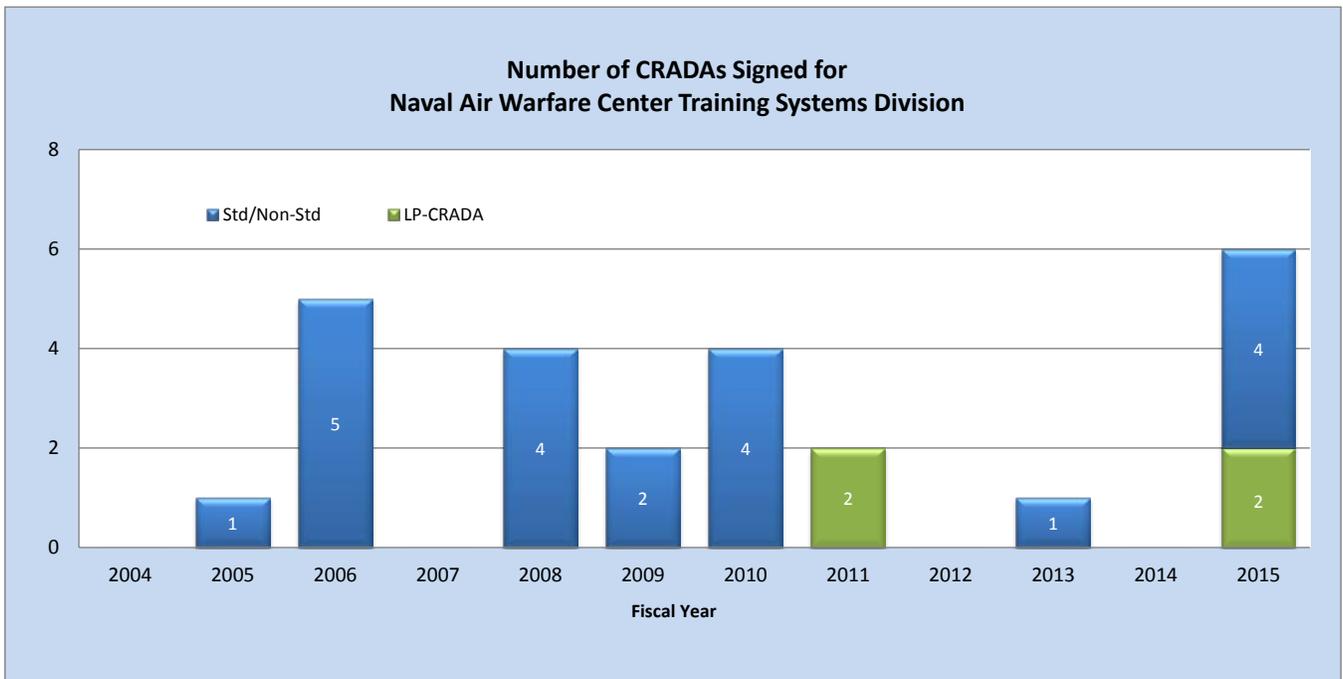
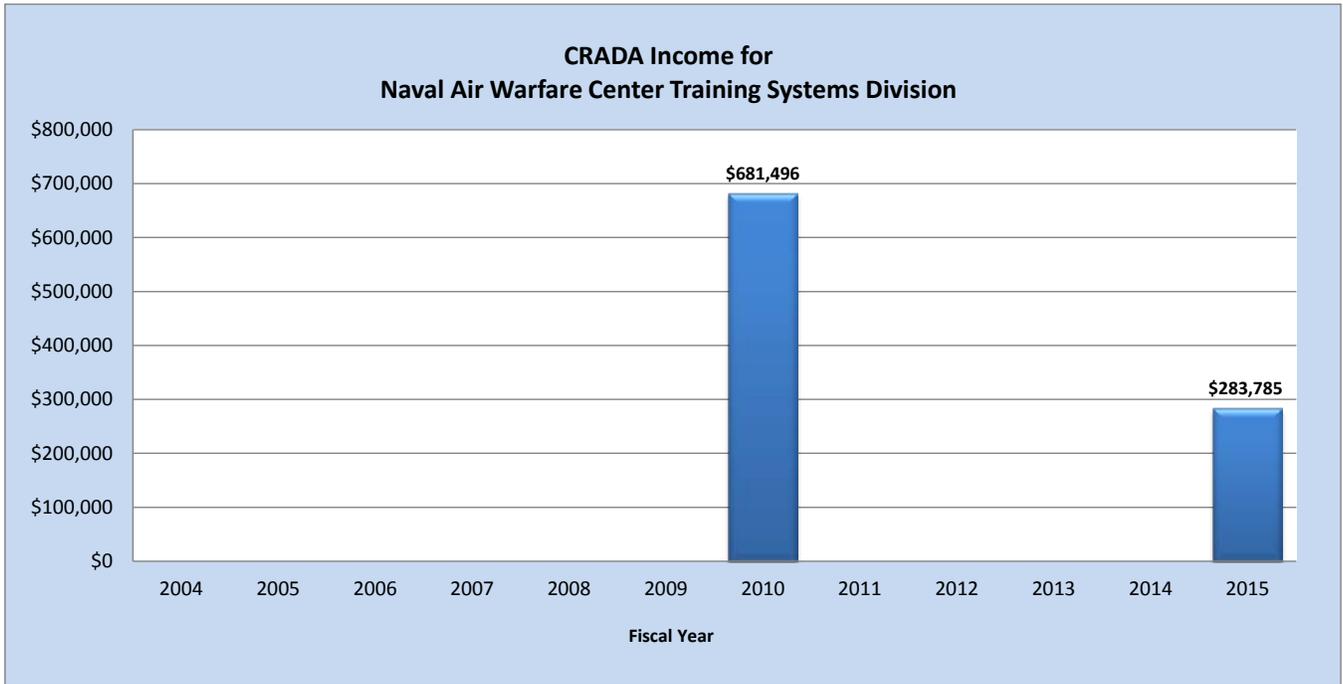


**CRADA History for
Naval Air Warfare Center Training Systems Division**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$13,000		29	-	29	29
2004	\$0		-	-	-	29
2005	\$0		1	-	1	30
2006	\$0		5	-	5	35
2007	\$0		-	-	-	35
2008	\$0		4	-	4	39
2009	\$0		2	-	2	41
2010	\$681,496		4	-	4	45
2011	\$0		-	2	2	47
2012	\$0		-	-	-	47
2013	\$0		1	-	1	48
2014	\$0		-	-	-	48
2015	\$283,785		4	2	6	54

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

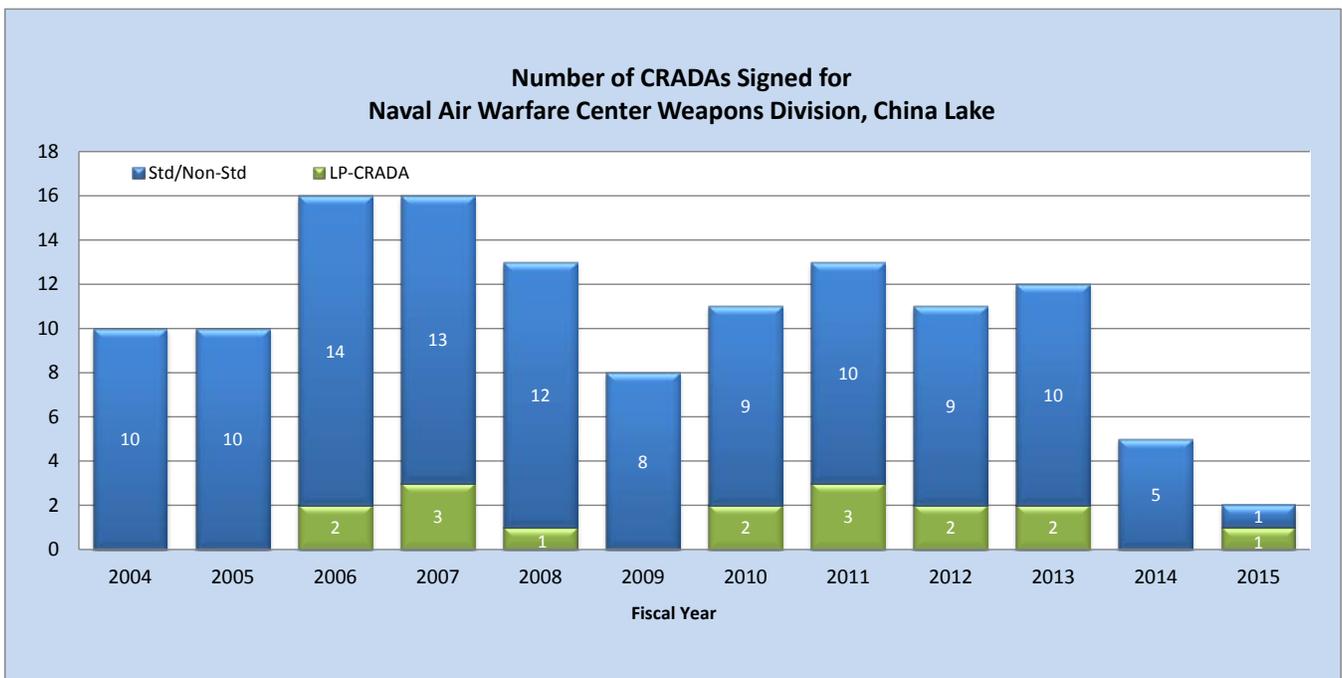
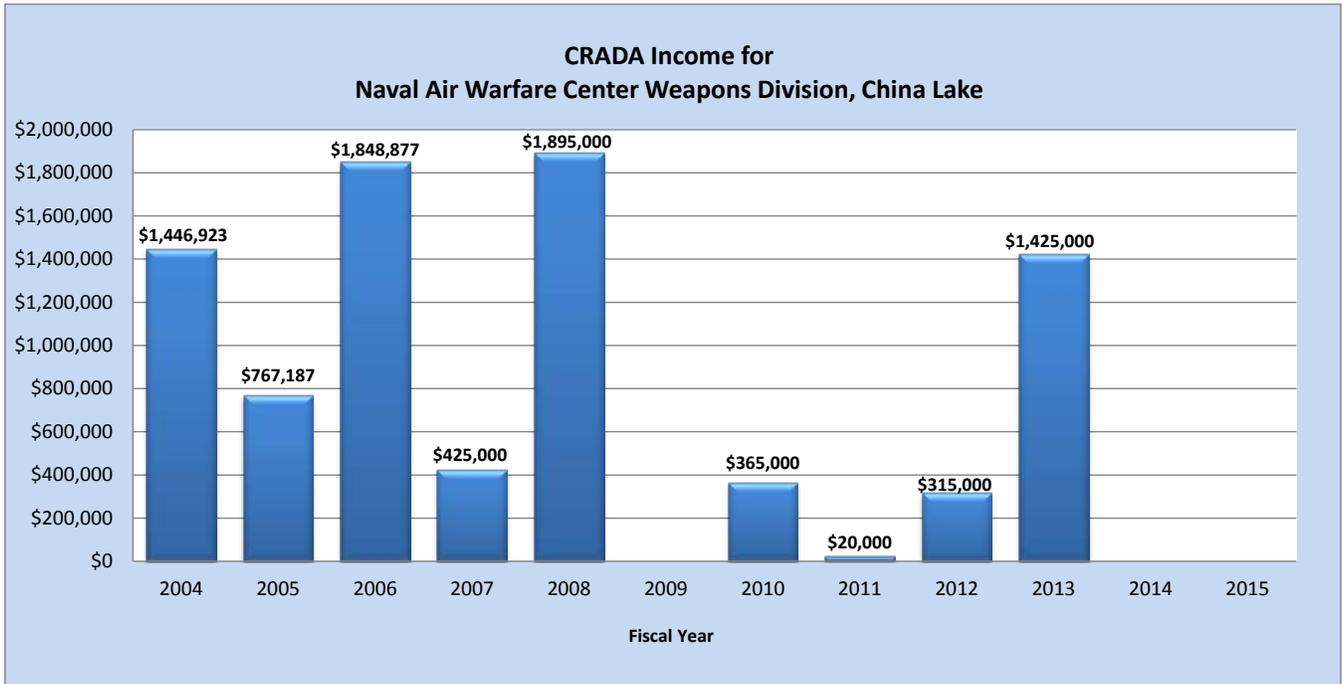


**CRADA History for
Naval Air Warfare Center Weapons Division, China Lake**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$22,127,619		119	-	119	119
2004	\$1,446,923		10	-	10	129
2005	\$767,187		10	-	10	139
2006	\$1,848,877		14	2	16	155
2007	\$425,000		13	3	16	171
2008	\$1,895,000		12	1	13	184
2009	\$0		8	-	8	192
2010	\$365,000		9	2	11	203
2011	\$20,000		10	3	13	216
2012	\$315,000	\$25,000	9	2	11	227
2013	\$1,425,000		10	2	12	239
2014	\$0		5	-	5	244
2015	\$0		1	1	2	246

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

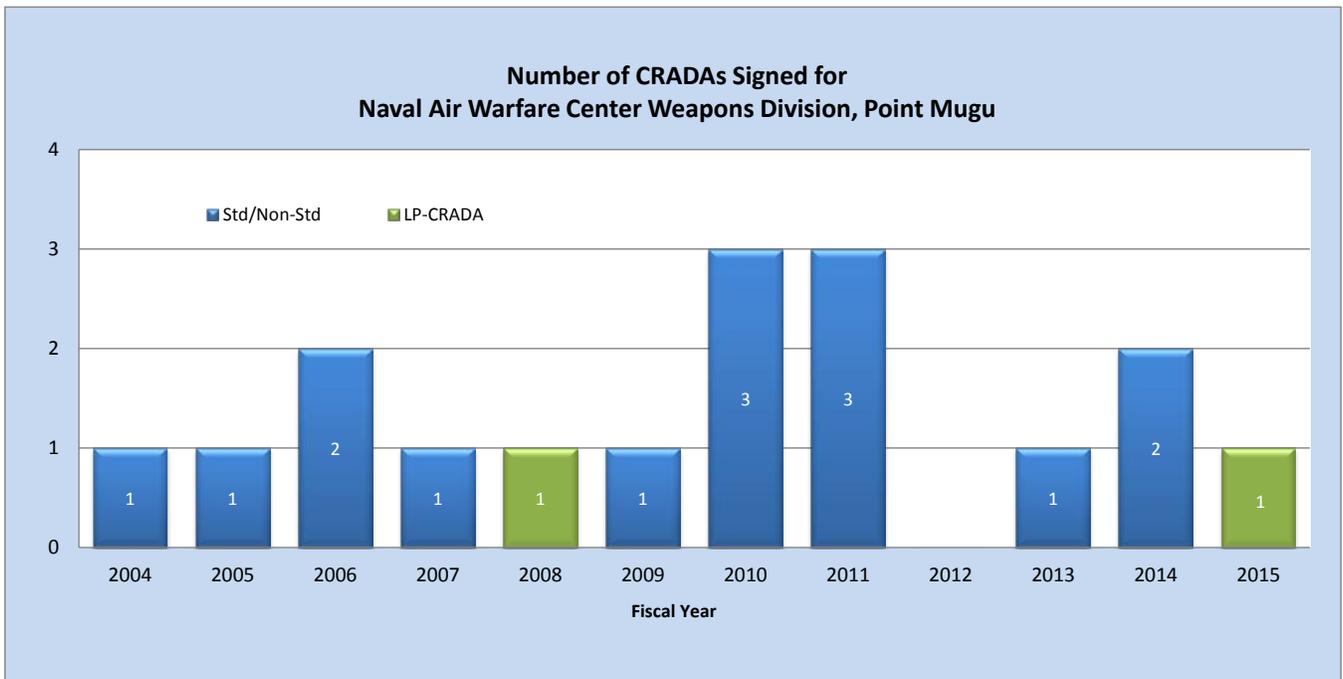
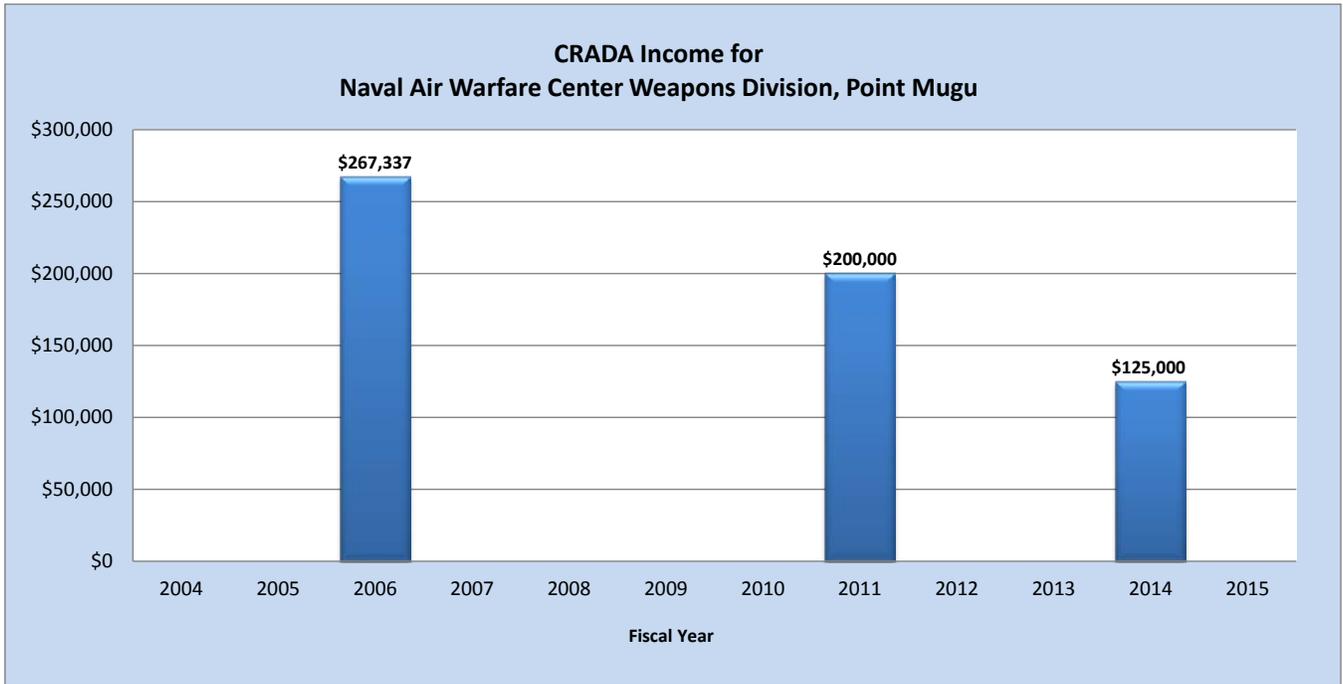


**CRADA History for
Naval Air Warfare Center Weapons Division, Point Mugu**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$2,378,000		32	3	35	35
2004	\$0		1	-	1	36
2005	\$0		1	-	1	37
2006	\$267,337		2	-	2	39
2007	\$0		1	-	1	40
2008	\$0		-	1	1	41
2009	\$0		1	-	1	42
2010	\$0		3	-	3	45
2011	\$200,000		3	-	3	48
2012	\$0		-	-	-	48
2013	\$0		1	-	1	49
2014	\$125,000	\$100,000	2	-	2	51
2015	\$0		-	1	1	52

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

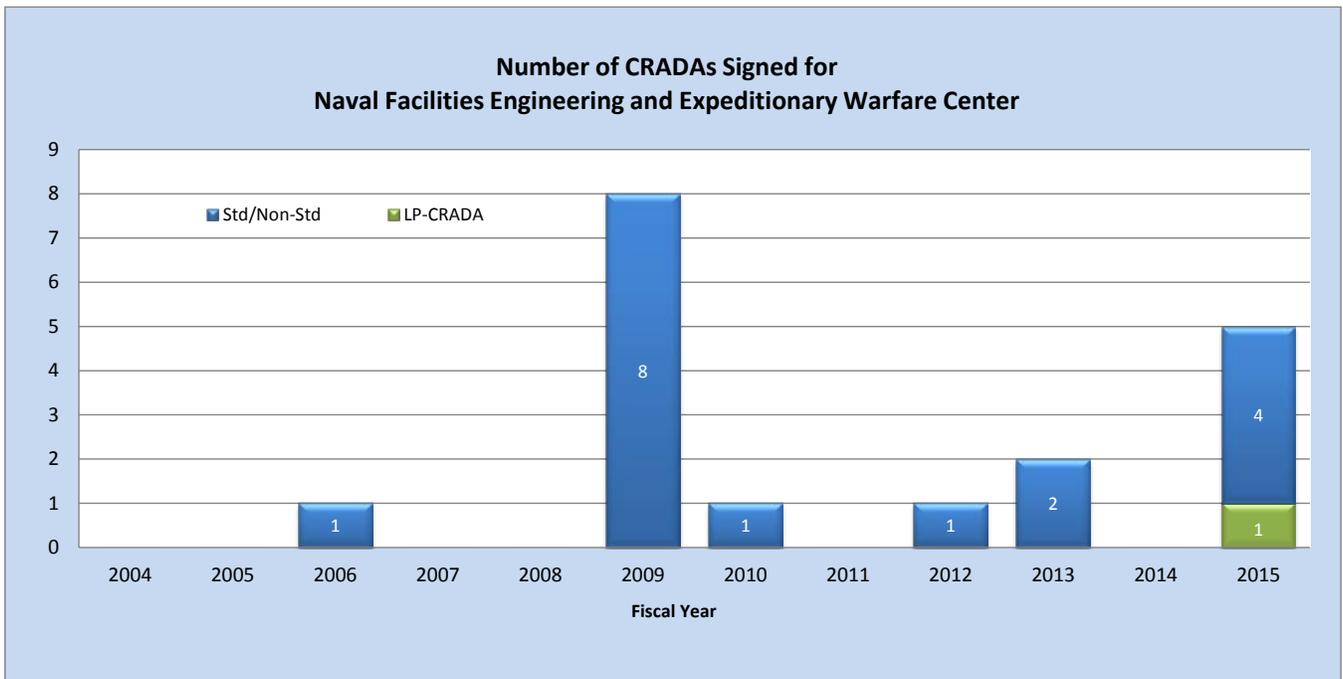
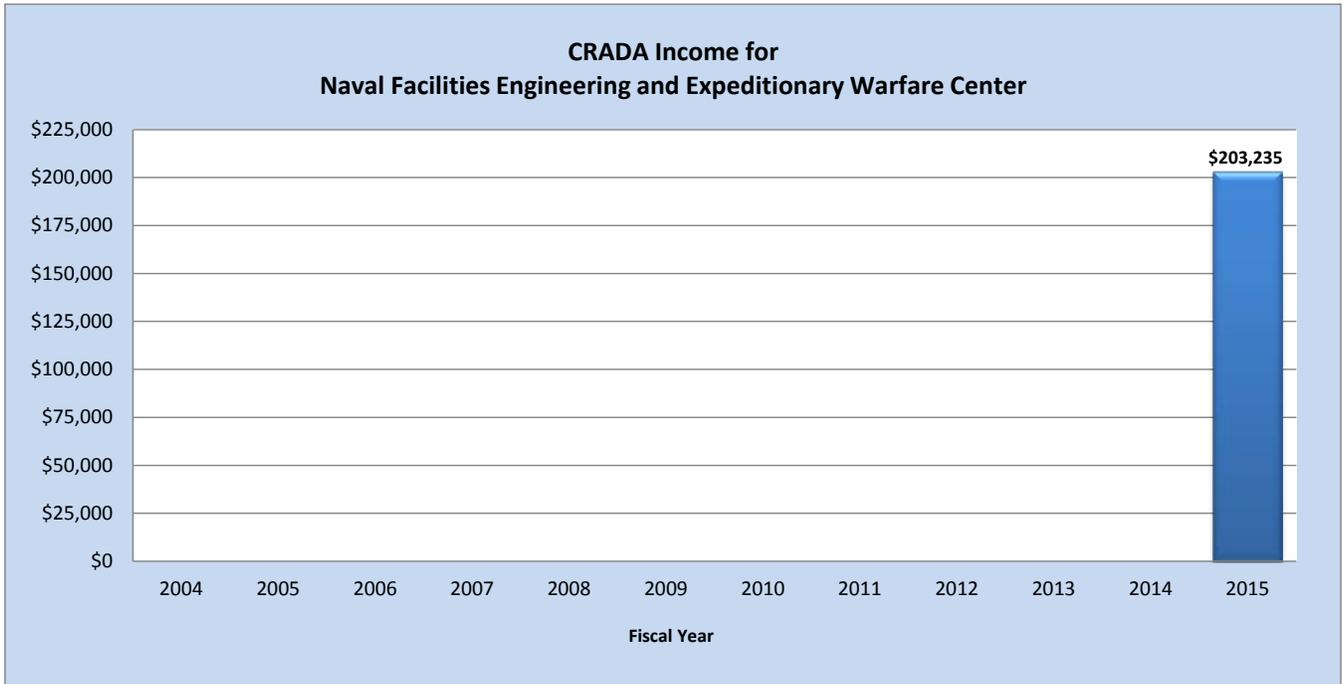


**CRADA History for
Naval Facilities and Expeditionary Warfare Center**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA **	Total	Cumulative
1989-2003	\$495,000		14	-	14	14
2004	\$0		-	-	-	14
2005	\$0		-	-	-	14
2006	\$0		1	-	1	15
2007	\$0		-	-	-	15
2008	\$0		-	-	-	15
2009	\$0		8	-	8	23
2010	\$0		1	-	1	24
2011	\$0		-	-	-	24
2012	\$0		1	-	1	25
2013	\$0		2	-	2	27
2014	\$0		-	-	-	27
2015	\$203,235		4	1	5	32

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

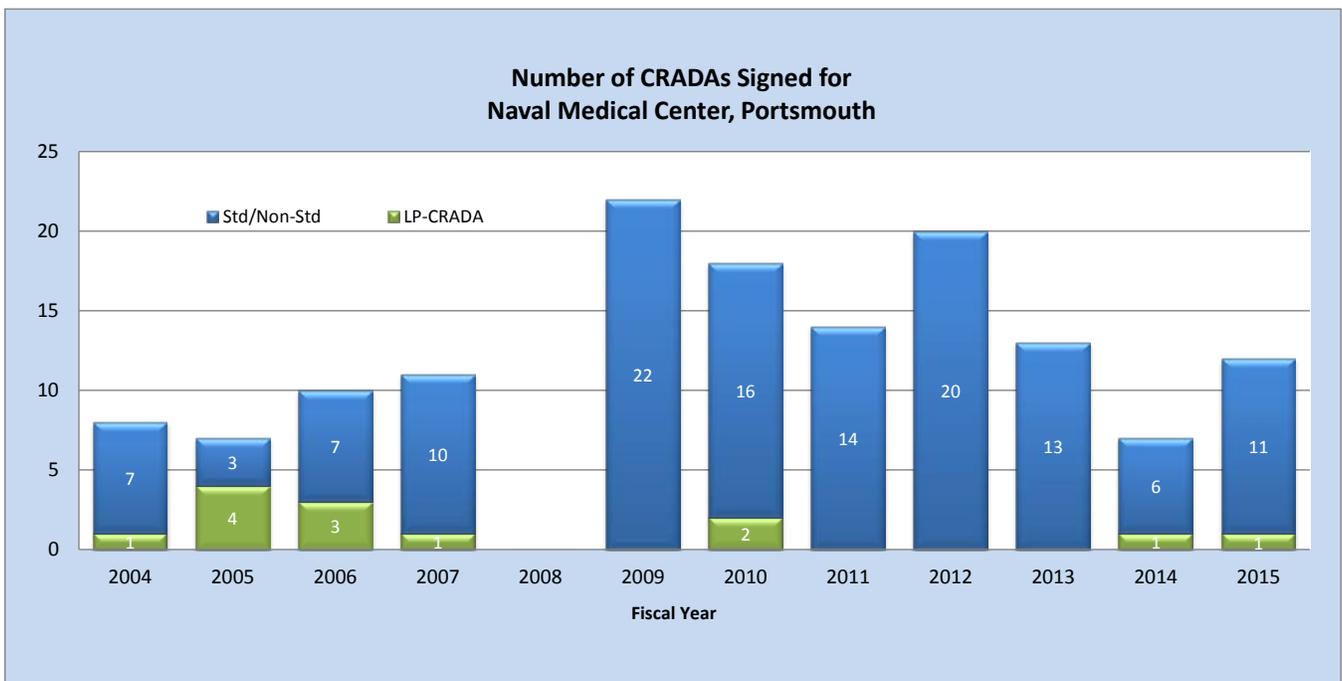
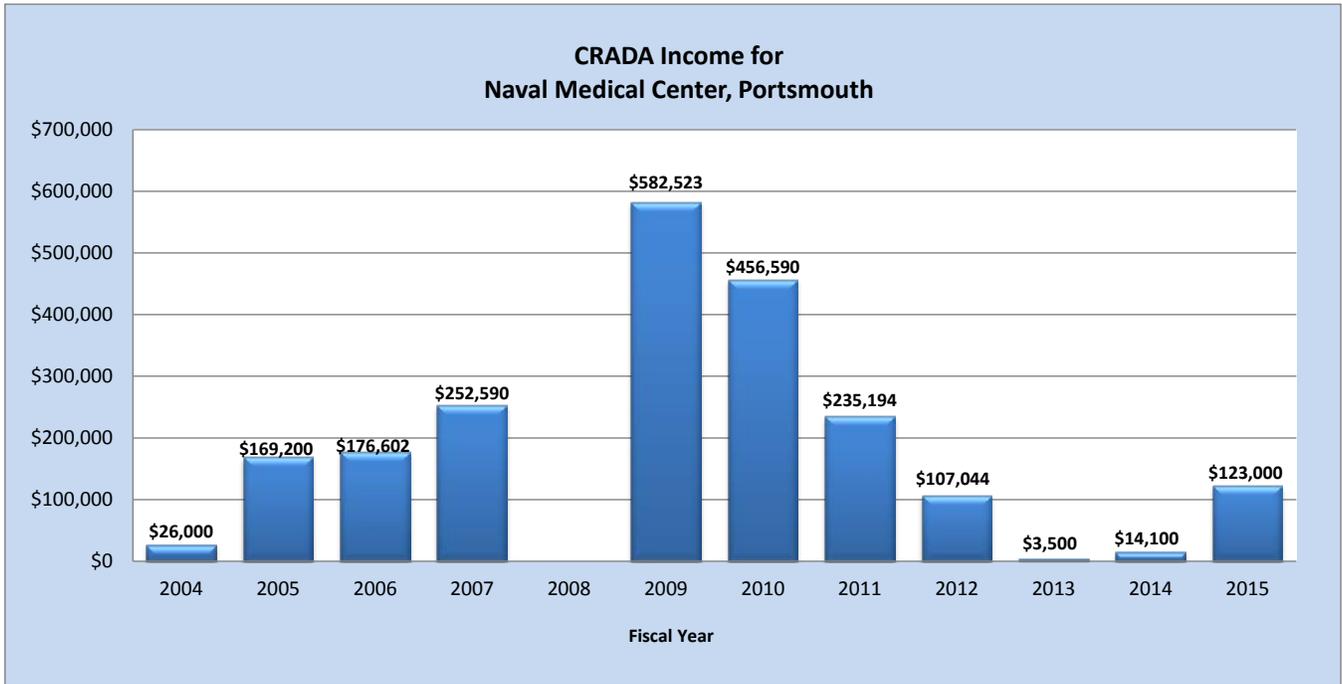


**CRADA History for
Naval Medical Center, Portsmouth**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$92,333		12	1	13	13
2004	\$26,000		7	1	8	21
2005	\$169,200		3	4	7	28
2006	\$176,602		7	3	10	38
2007	\$252,590		10	1	11	49
2008	\$0		-	-	-	49
2009	\$582,523		22	-	22	71
2010	\$456,590		16	2	18	89
2011	\$235,194		14	-	14	103
2012	\$107,044		20	-	20	123
2013	\$3,500	(\$9,000)	13	-	13	136
2014	\$14,100		6	1	7	143
2015	\$123,000	\$100,000	11	1	12	155

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

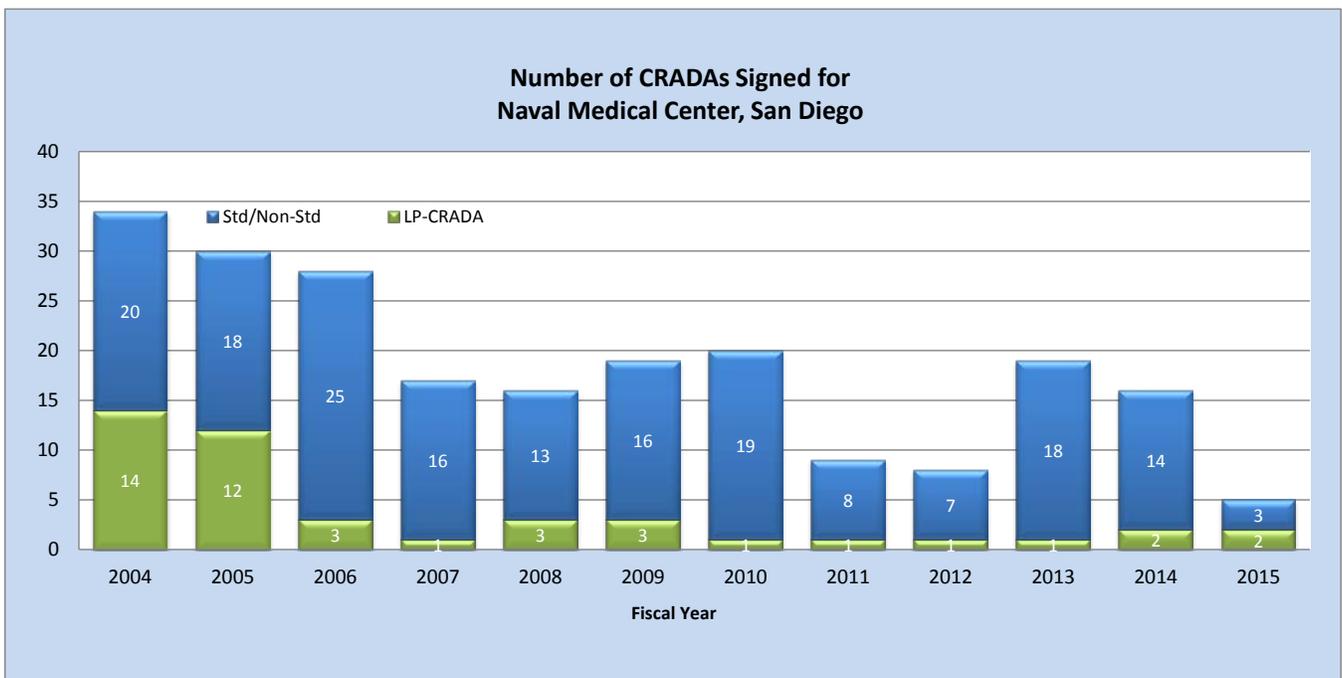
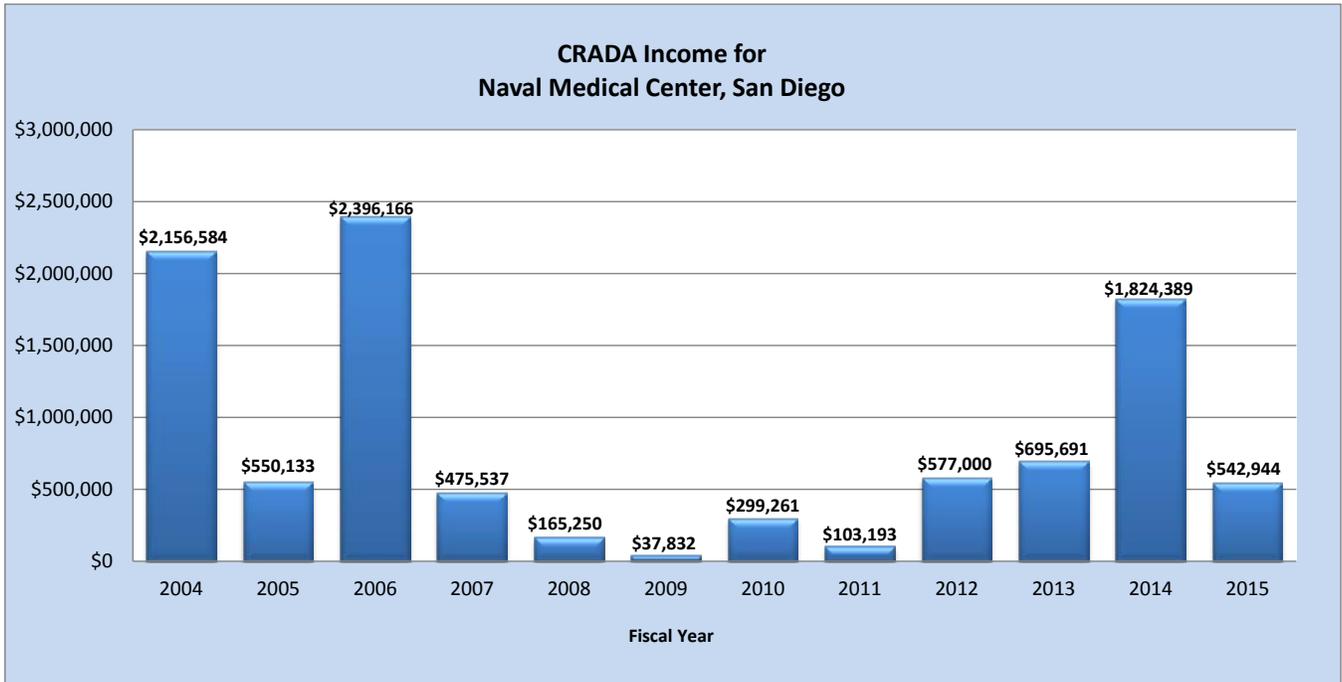


**CRADA History for
Naval Medical Center, San Diego**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$749,144		53	3	56	56
2004	\$2,156,584		20	14	34	90
2005	\$550,133		18	12	30	120
2006	\$2,396,166		25	3	28	148
2007	\$475,537		16	1	17	165
2008	\$165,250		13	3	16	181
2009	\$37,832		16	3	19	200
2010	\$299,261		19	1	20	220
2011	\$103,193		8	1	9	229
2012	\$577,000	\$307,000	7	1	8	237
2013	\$695,691		18	1	19	256
2014	\$1,824,389	\$100,000	14	2	16	272
2015	\$542,944		3	2	5	277

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

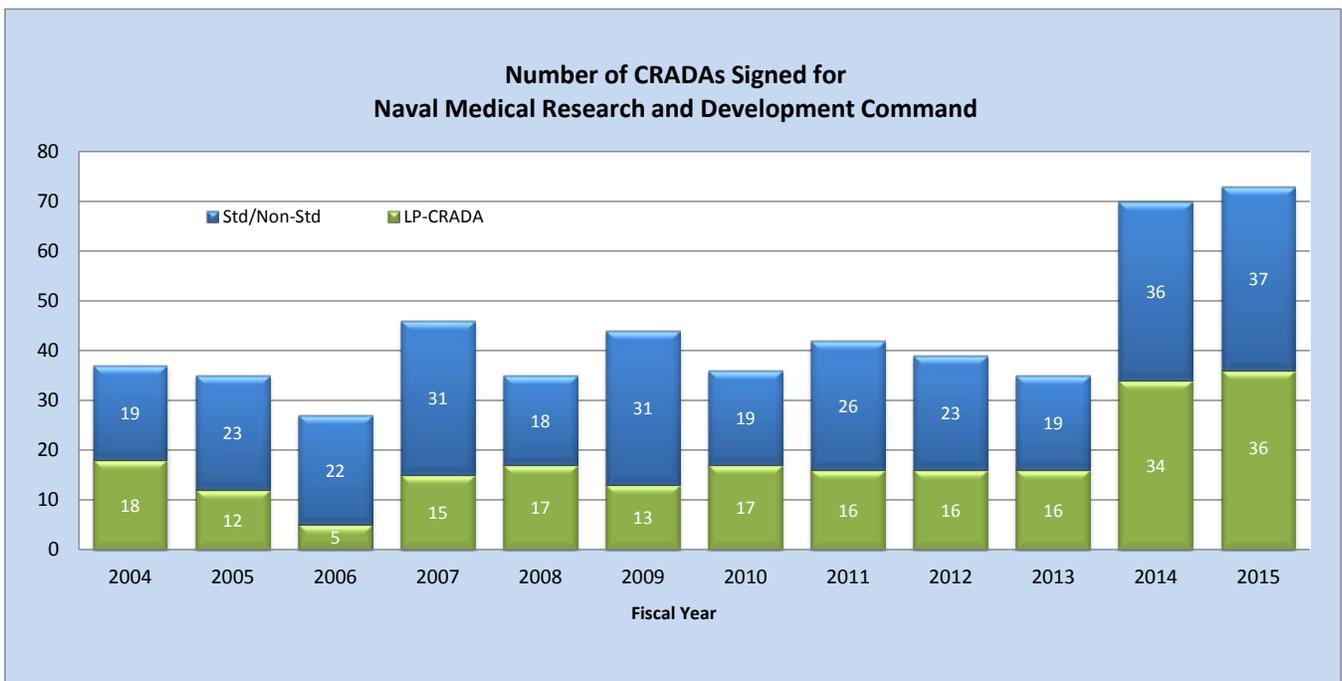
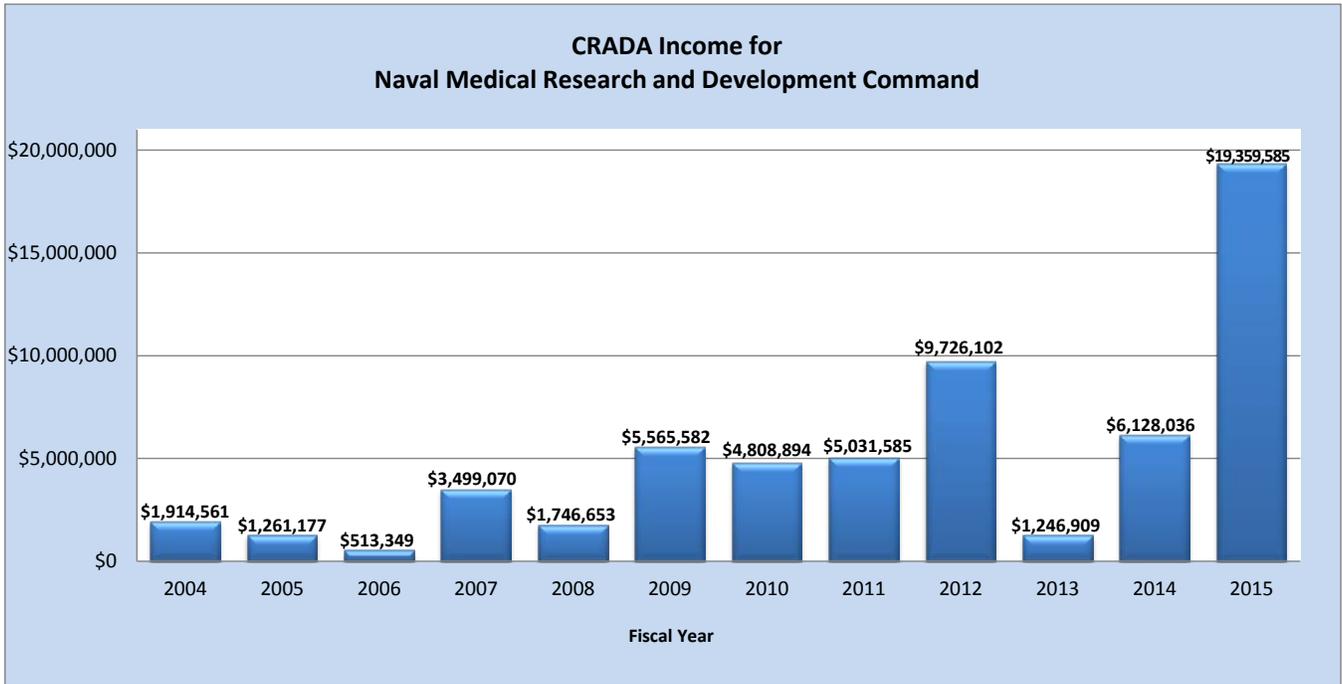


**CRADA History for
Naval Medical Research and Development Command**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA **	Total	Cumulative
1989-2003	\$8,119,968		196	161	357	357
2004	\$1,914,561		19	18	37	394
2005	\$1,261,177		23	12	35	429
2006	\$513,349		22	5	27	456
2007	\$3,499,070		31	15	46	502
2008	\$1,746,653		18	17	35	537
2009	\$5,565,582		31	13	44	581
2010	\$4,808,894		19	17	36	617
2011	\$5,031,585		26	16	42	659
2012	\$9,726,102		23	16	39	698
2013	\$1,246,909		19	16	35	733
2014	\$6,128,036	\$314,270	36	34	70	803
2015	\$19,359,585	\$53,674	37	36	73	876

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

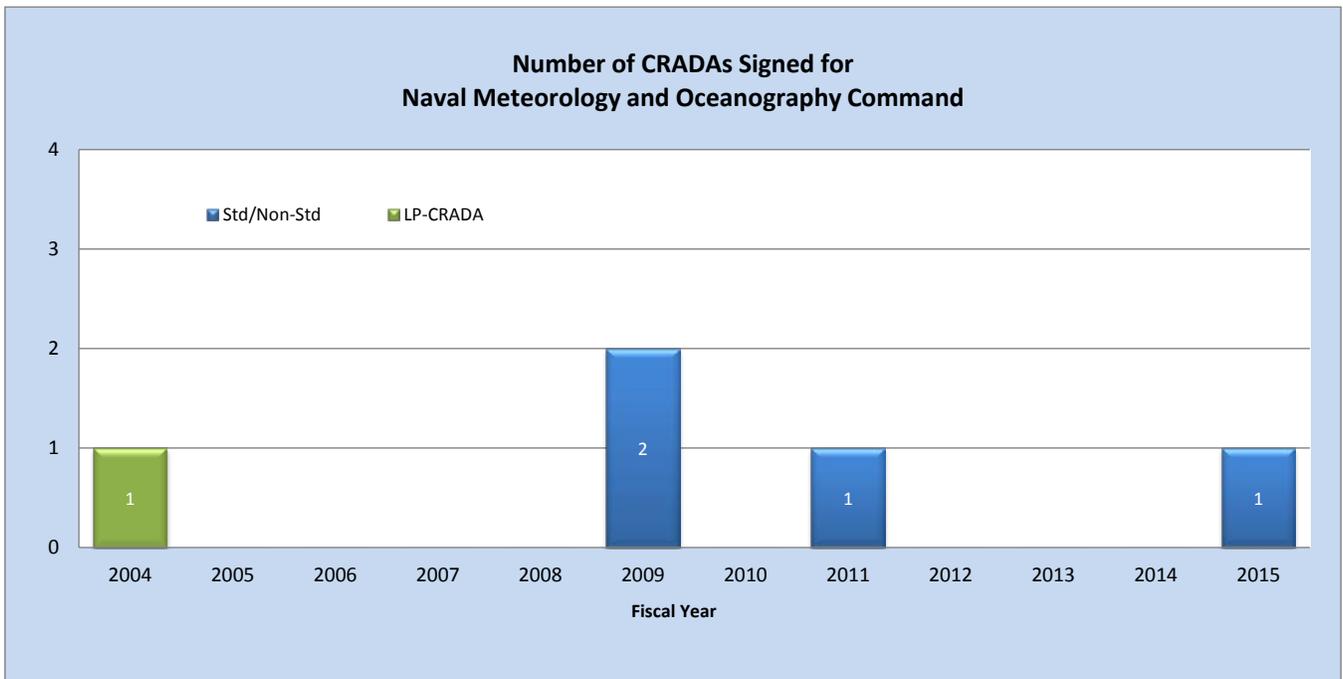
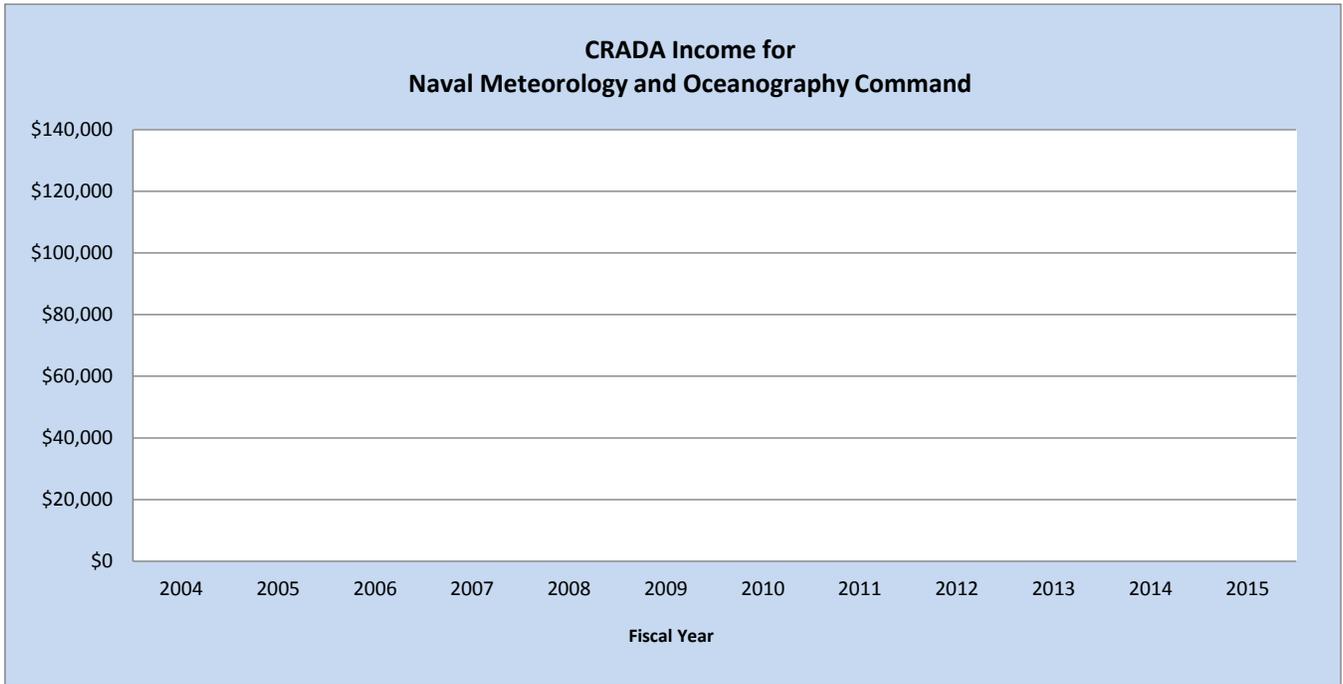


**CRADA History for
Naval Meteorology and Oceanography Command**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$134,500		10	6	16	16
2004	\$0		-	1	1	17
2005	\$0		-	-	-	17
2006	\$0		-	-	-	17
2007	\$0		-	-	-	17
2008	\$0		-	-	-	17
2009	\$0		2	-	2	19
2010	\$0		-	-	-	19
2011	\$0		1	-	1	20
2012	\$0		-	-	-	20
2013	\$0		-	-	-	20
2014	\$0		-	-	-	20
2015	\$0		1	-	1	21

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

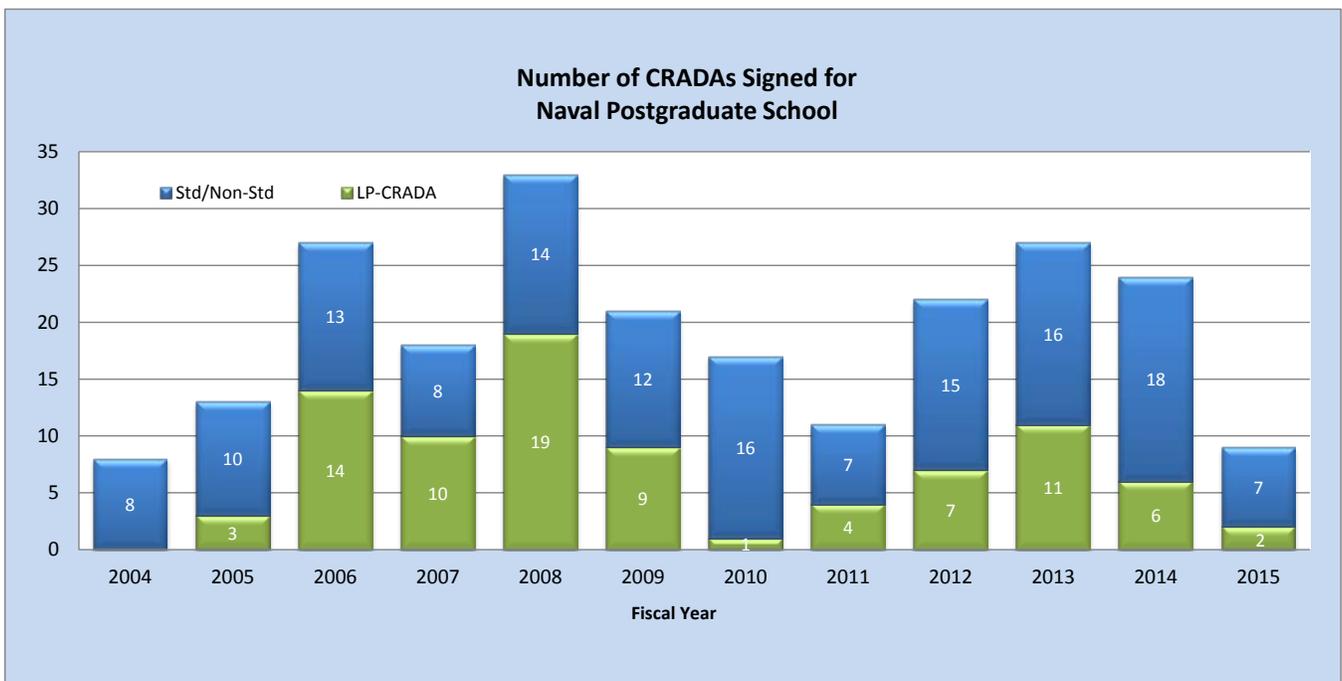
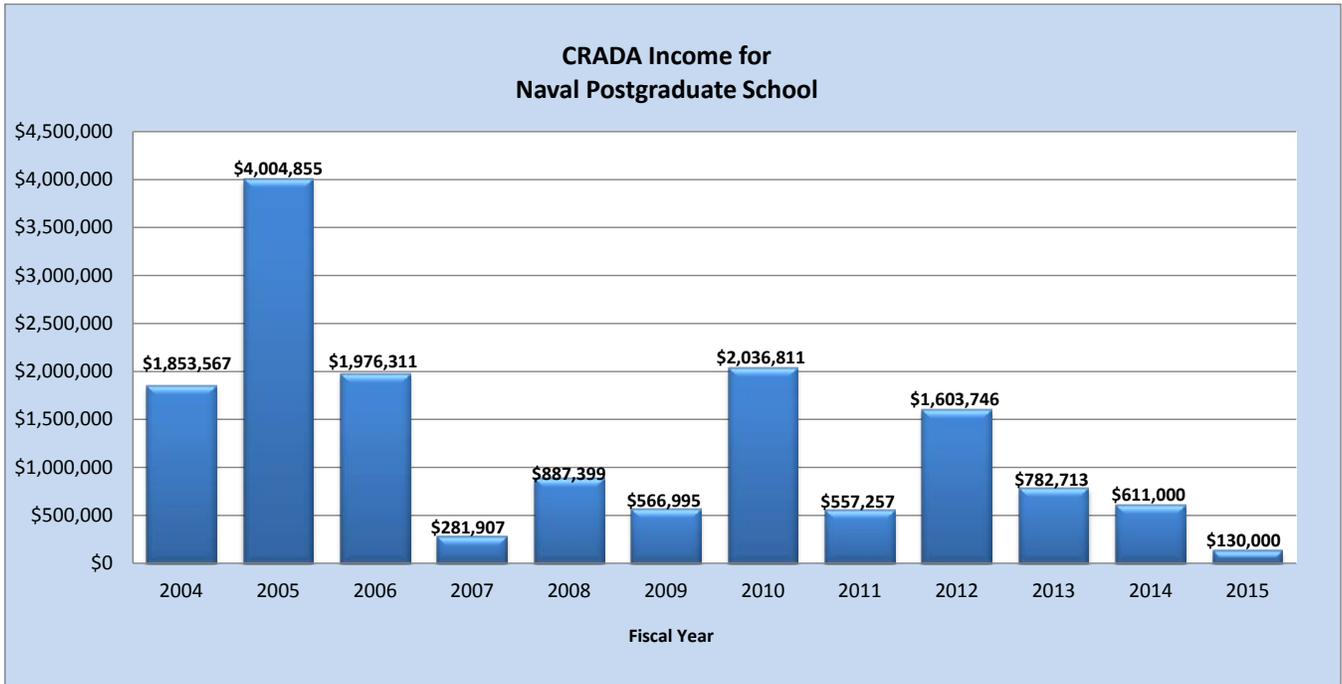


CRADA History for Naval Postgraduate School

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$6,149,567		47	-	47	47
2004	\$1,853,567		8	-	8	55
2005	\$4,004,855		10	3	13	68
2006	\$1,976,311		13	14	27	95
2007	\$281,907		8	10	18	113
2008	\$887,399		14	19	33	146
2009	\$566,995		12	9	21	167
2010	\$2,036,811		16	1	17	184
2011	\$557,257		7	4	11	195
2012	\$1,603,746	\$30,000	15	7	22	217
2013	\$782,713		16	11	27	244
2014	\$611,000	\$70,000	18	6	24	268
2015	\$130,000		7	2	9	277

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

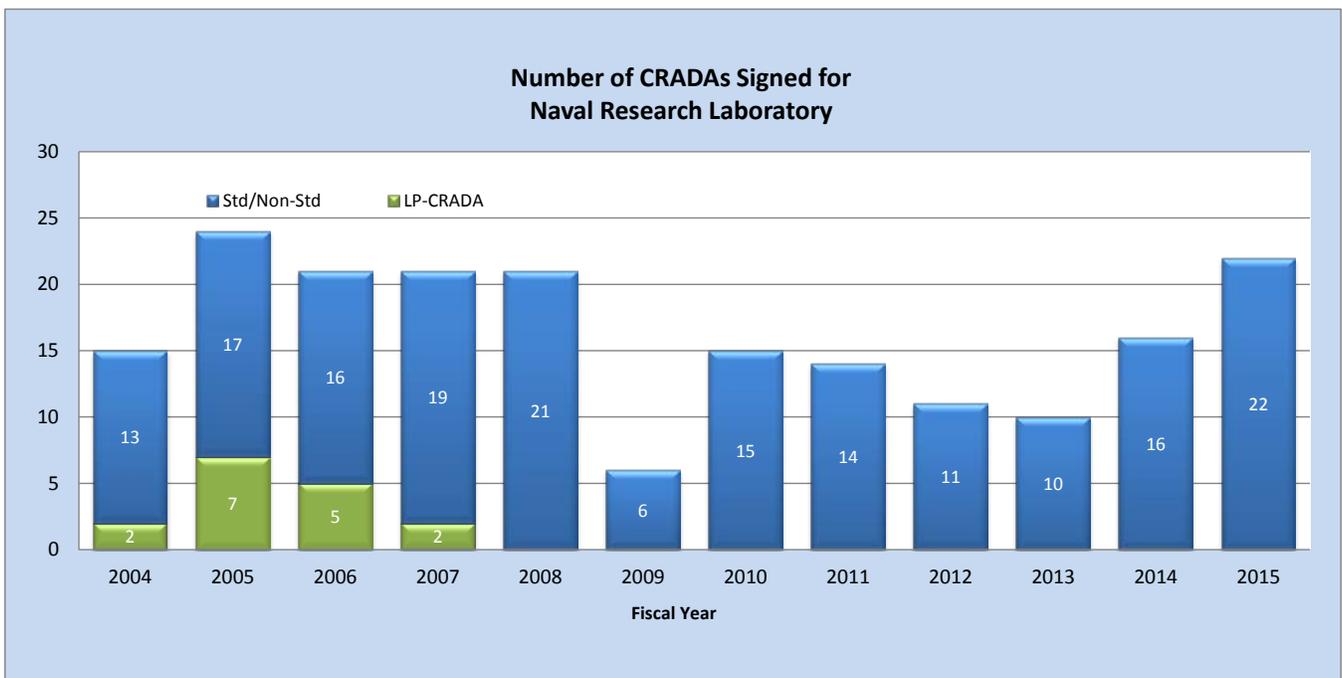
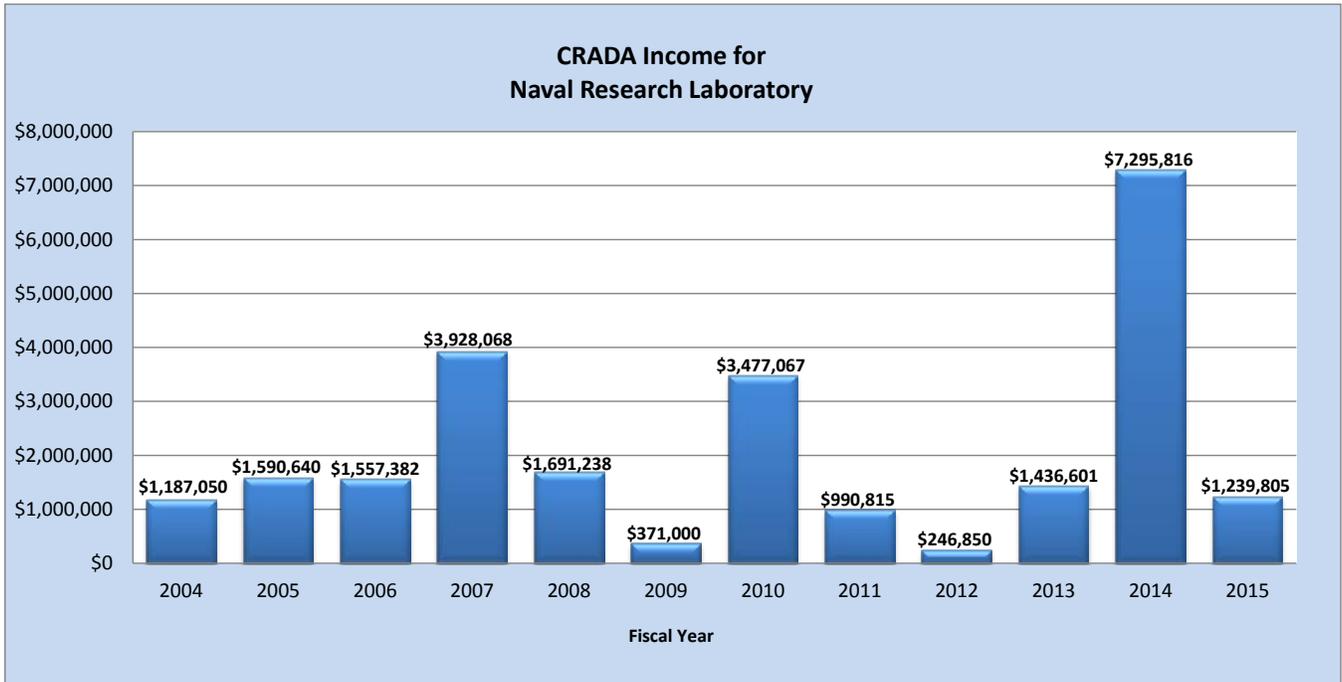


**CRADA History for
Naval Research Laboratory**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$15,733,818		242	39	281	281
2004	\$1,187,050		13	2	15	296
2005	\$1,590,640		17	7	24	320
2006	\$1,557,382		16	5	21	341
2007	\$3,928,068		19	2	21	362
2008	\$1,691,238		21	-	21	383
2009	\$371,000		6	-	6	389
2010	\$3,477,067		15	-	15	404
2011	\$990,815		14	-	14	418
2012	\$246,850		11	-	11	429
2013	\$1,436,601	\$99,615	10	-	10	439
2014	\$7,295,816	\$3,910,000	16	-	16	455
2015	\$1,239,805		22	-	22	477

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

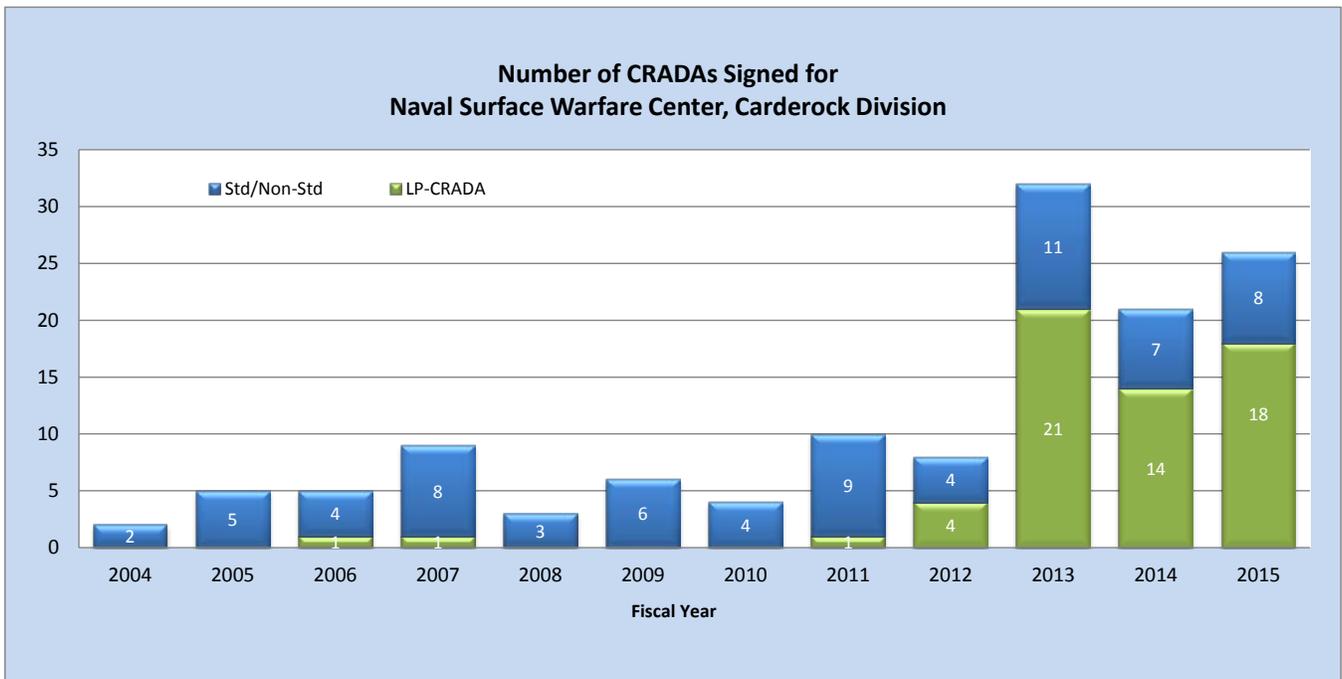
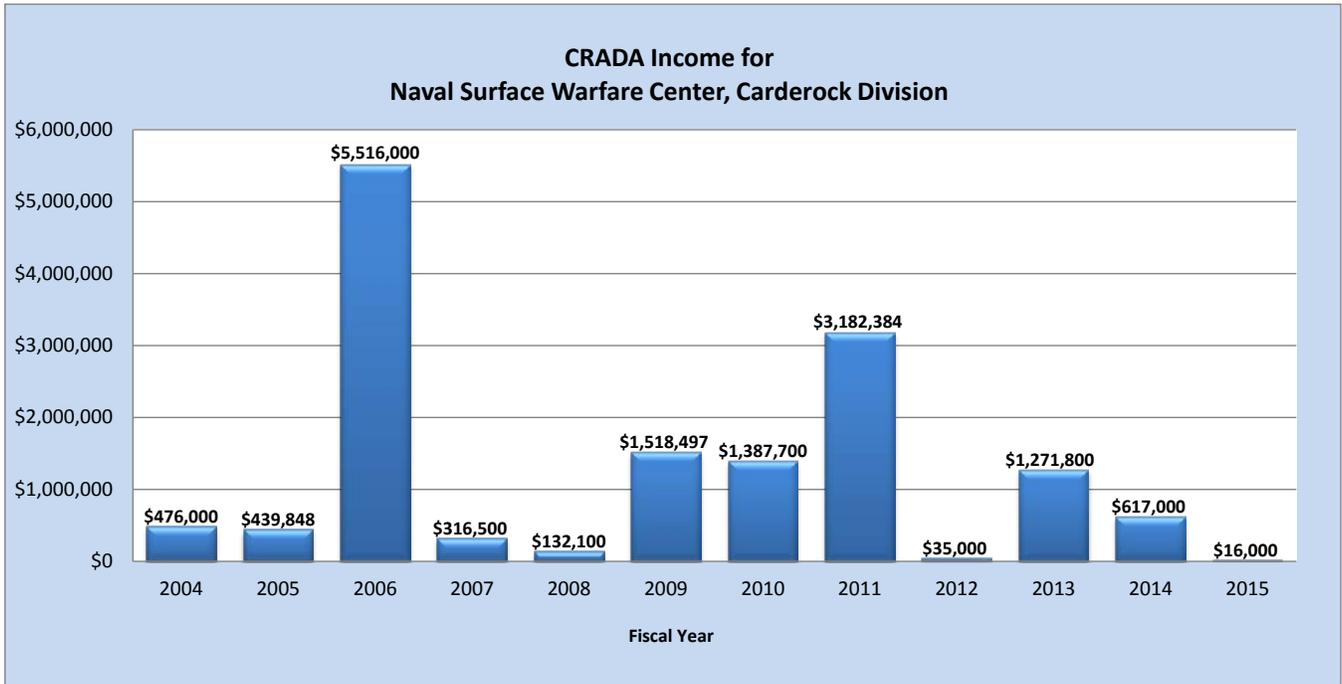


**CRADA History for
Naval Surface Warfare Center, Carderock Division**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$1,899,625		41	16	57	57
2004	\$476,000		2	-	2	59
2005	\$439,848		5	-	5	64
2006	\$5,516,000		4	1	5	69
2007	\$316,500		8	1	9	78
2008	\$132,100		3	-	3	81
2009	\$1,518,497		6	-	6	87
2010	\$1,387,700		4	-	4	91
2011	\$3,182,384		9	1	10	101
2012	\$35,000		4	4	8	109
2013	\$1,271,800	\$50,000	11	21	32	141
2014	\$617,000	\$110,000	7	14	21	162
2015	\$16,000		8	18	26	188

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

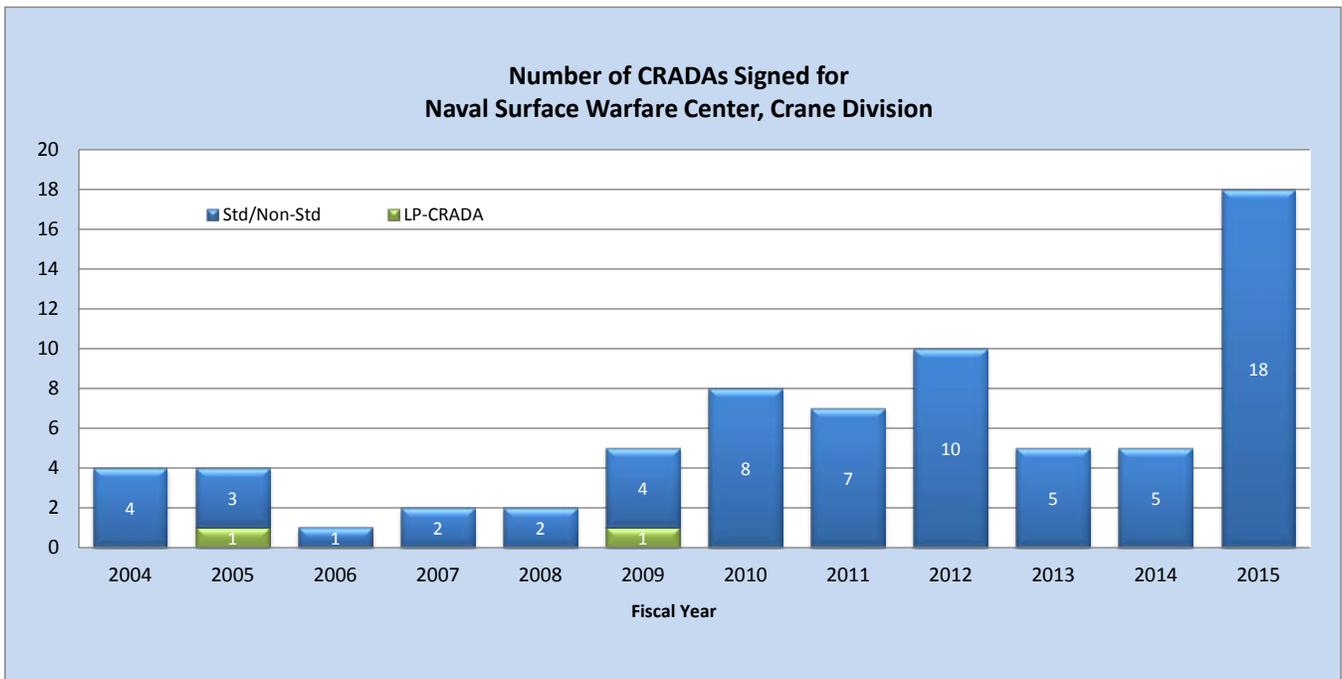
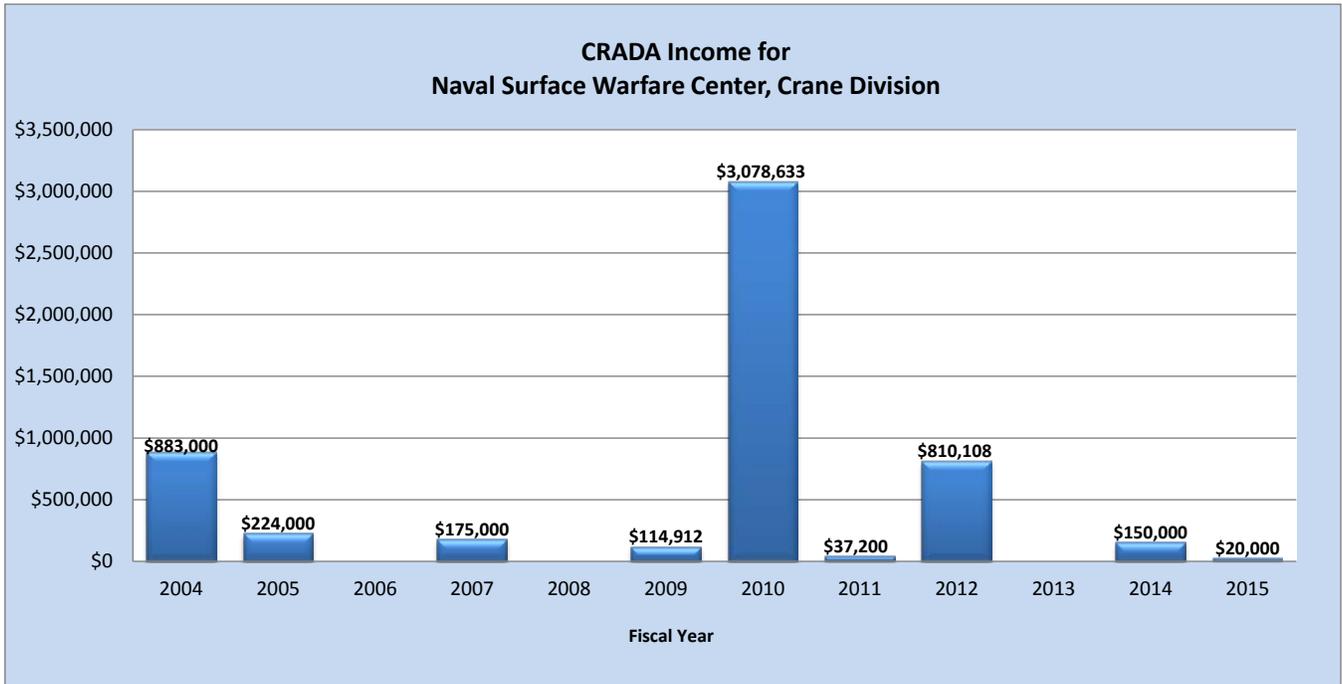


**CRADA History for
Naval Surface Warfare Center, Crane Division**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$2,670,300		21	27	48	48
2004	\$883,000		4	-	4	52
2005	\$224,000		3	1	4	56
2006	\$0		1	-	1	57
2007	\$175,000		2	-	2	59
2008	\$0		2	-	2	61
2009	\$114,912		4	1	5	66
2010	\$3,078,633		8	-	8	74
2011	\$37,200		7	-	7	81
2012	\$810,108		10	-	10	91
2013	\$0		5	-	5	96
2014	\$150,000		5	-	5	101
2015	\$20,000		18	-	18	119

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

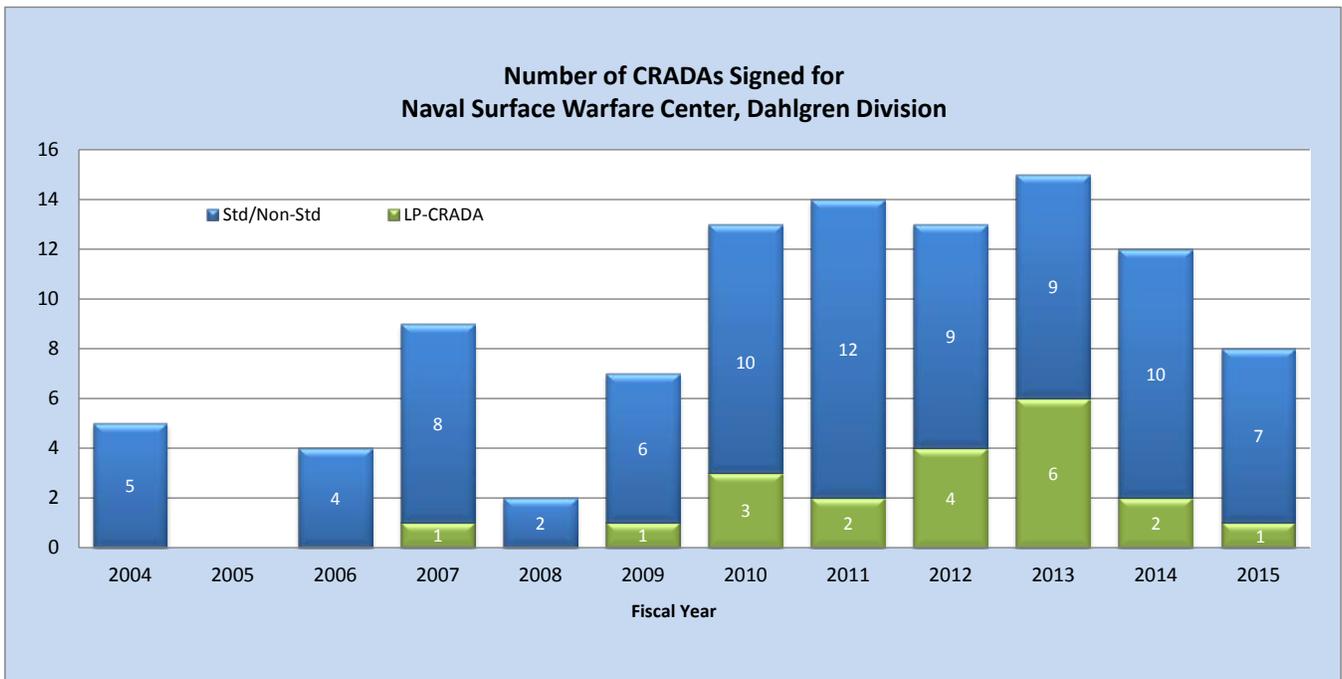
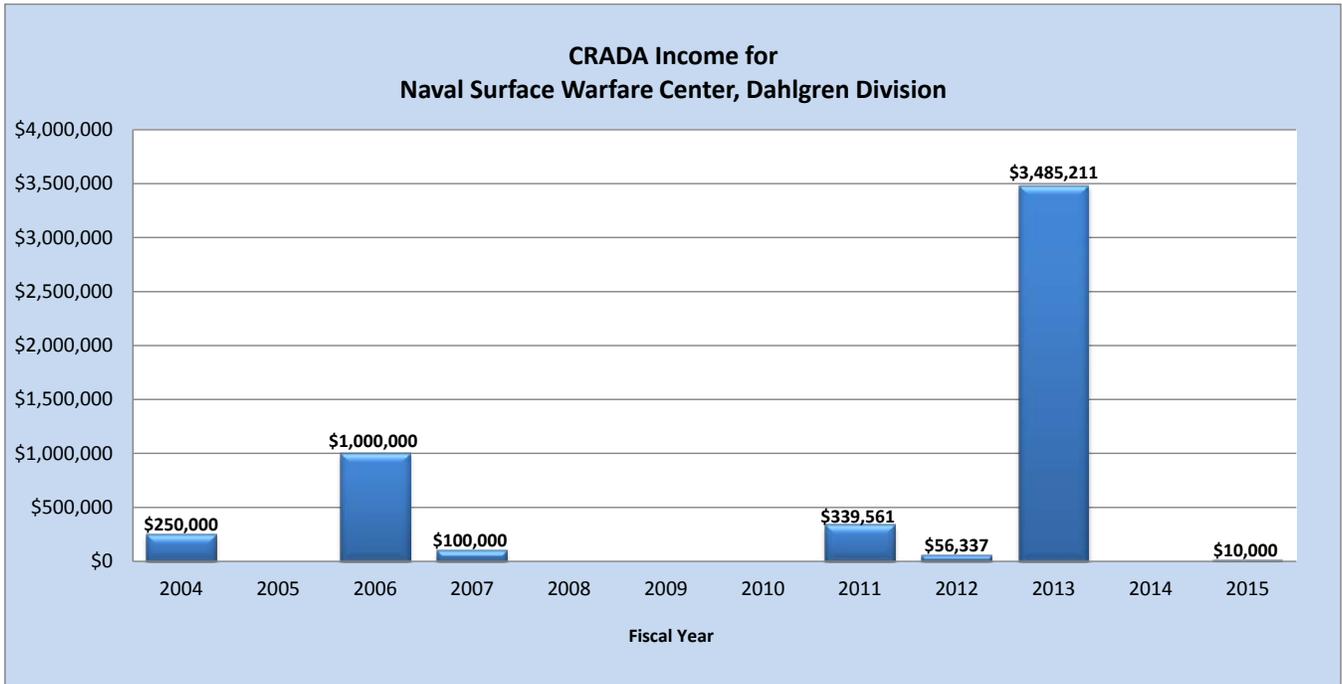


**CRADA History for
Naval Surface Warfare Center, Dahlgren Division**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$1,235,477		60	1	61	61
2004	\$250,000		5	-	5	66
2005	\$0		-	-	-	66
2006	\$1,000,000		4	-	4	70
2007	\$100,000		8	1	9	79
2008	\$0		2	-	2	81
2009	\$0		6	1	7	88
2010	\$0		10	3	13	101
2011	\$339,561	\$78,640	12	2	14	115
2012	\$56,337		9	4	13	128
2013	\$3,485,211	\$238,867	9	6	15	143
2014	\$0		10	2	12	155
2015	\$10,000		7	1	8	163

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.



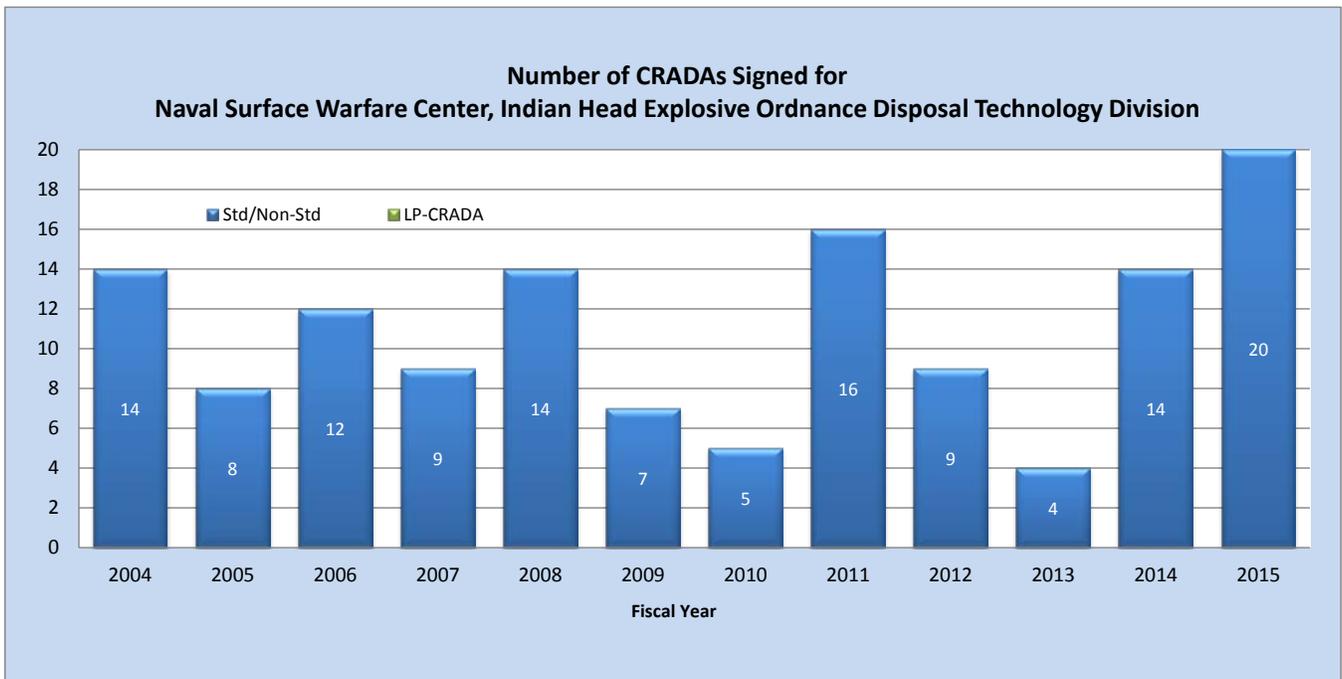
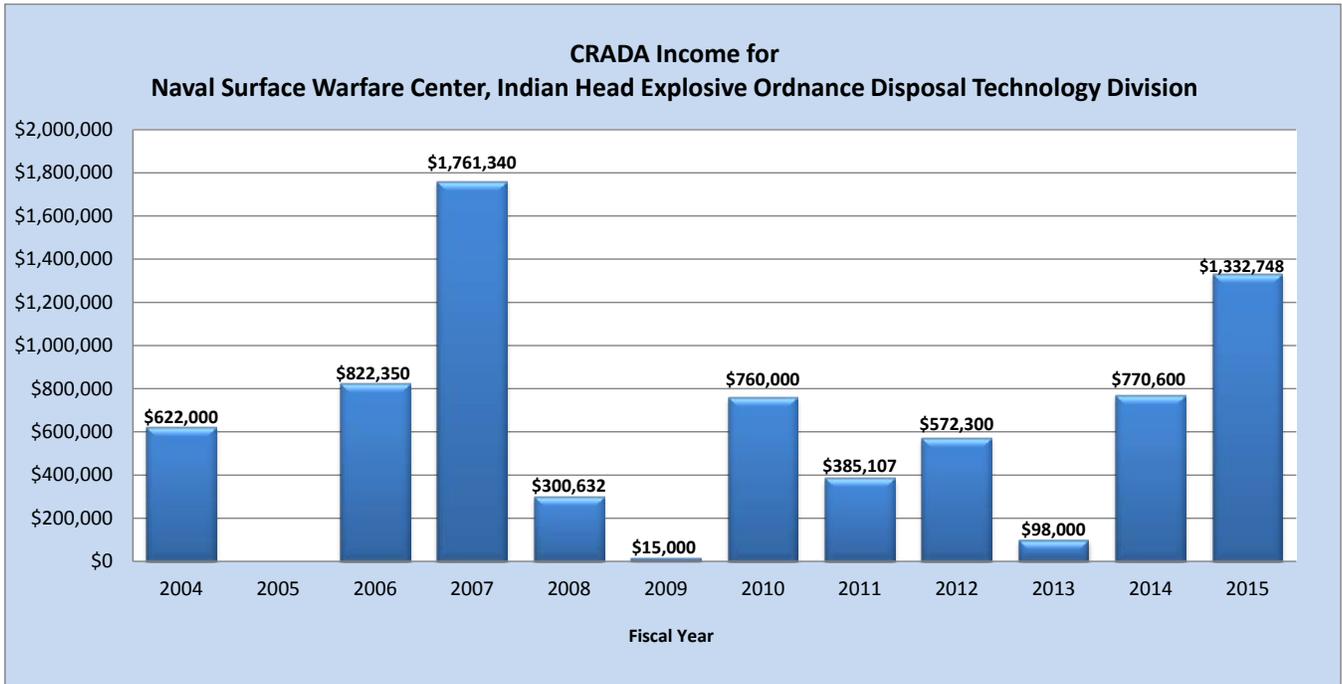
**CRADA History for
Naval Surface Warfare Center,
Indian Head Explosive Ordnance Disposal Technology Division**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$639,300		59	4	63	63
2004	\$622,000		14	-	14	77
2005	\$0		8	-	8	85
2006	\$822,350		12	-	12	97
2007	\$1,761,340		9	-	9	106
2008	\$300,632		14	-	14	120
2009	\$15,000		7	-	7	127
2010	\$760,000		5	-	5	132
2011	\$385,107		16	-	16	148
2012	\$572,300	\$4,356	9	-	9	157
2013	\$98,000		4	-	4	161
2014	\$770,600		14	-	14	175
2015	\$1,332,748		20	-	20	195

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

NOTE: As of February 28, 2013, the NSWC, Indian Head Division and the Naval Explosive Ordnance Disposal Technology Division were merged to form the NSWC, Indian Head Explosive Ordnance Disposal Technology Division (IHEODTECHDIV). The new Command, NSWC IHEODTECHDIV, retains the mission, functions, and technical capabilities of both organizations.

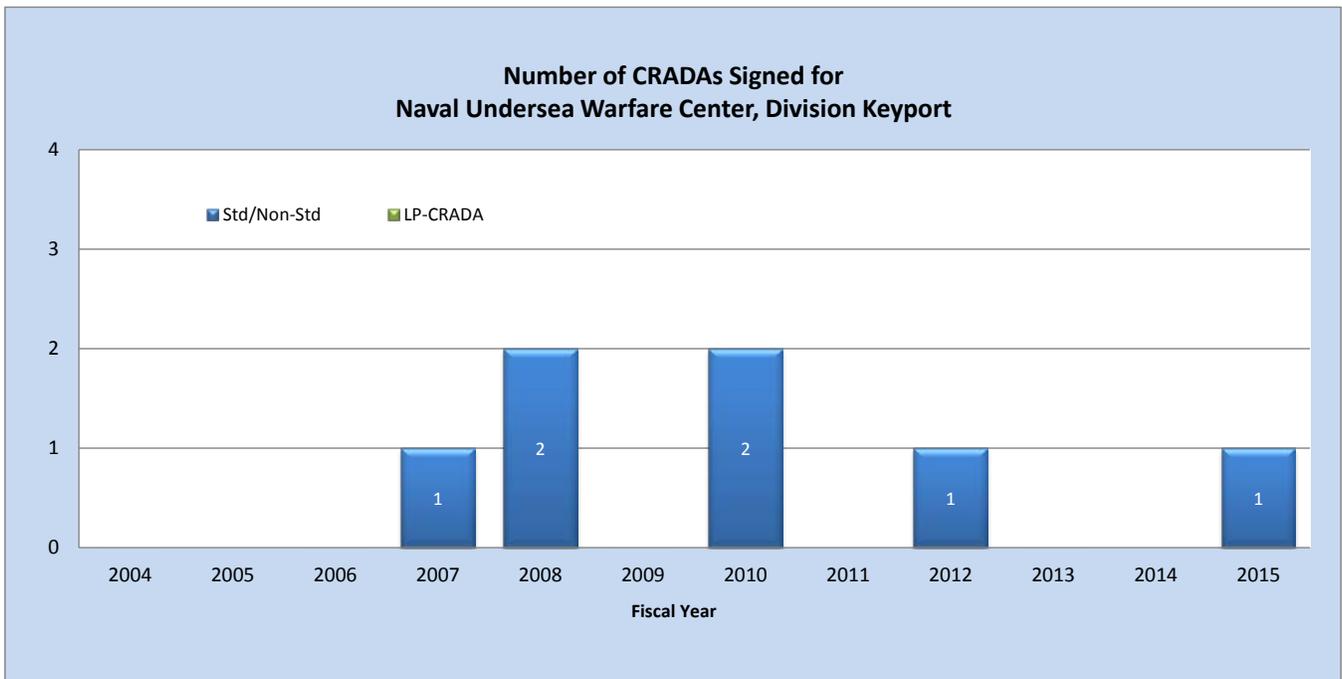
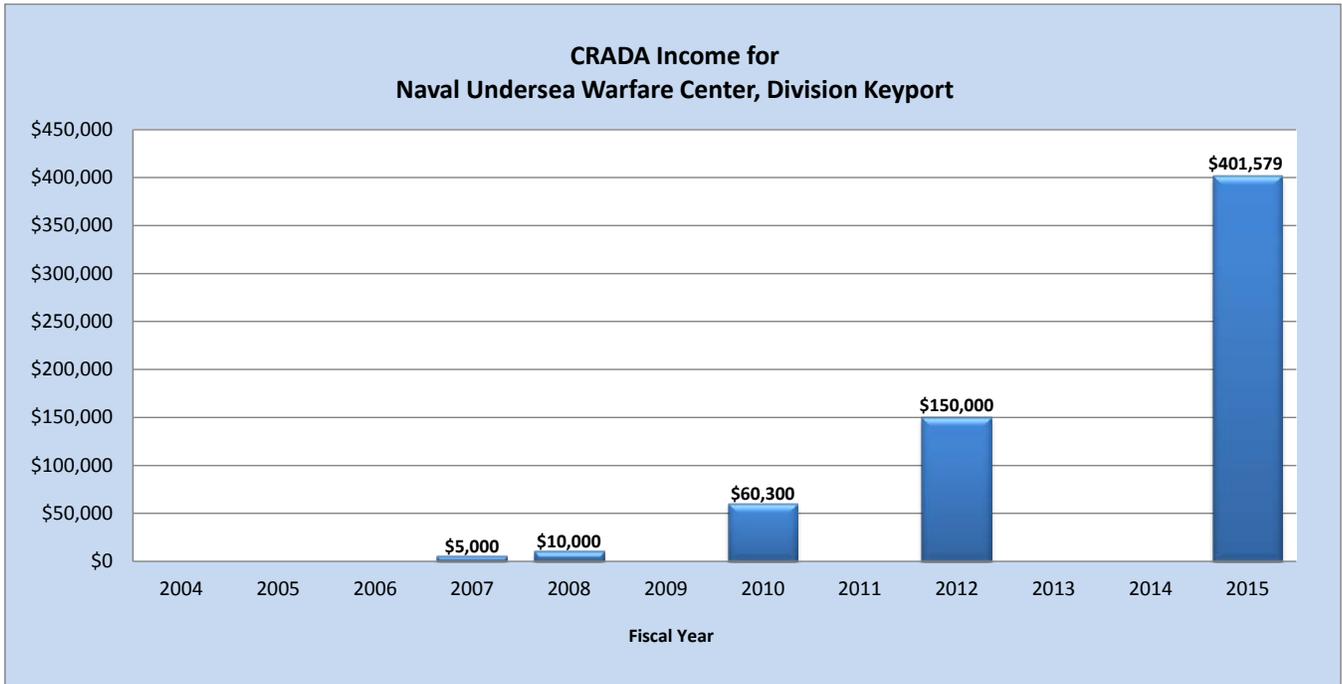


**CRADA History for
Naval Undersea Warfare Center, Division Keyport**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$0		5	1	6	6
2004	\$0		-	-	-	6
2005	\$0		-	-	-	6
2006	\$0		-	-	-	6
2007	\$5,000		1	-	1	7
2008	\$10,000		2	-	2	9
2009	\$0		-	-	-	9
2010	\$60,300		2	-	2	11
2011	\$0		-	-	-	11
2012	\$150,000		1	-	1	12
2013	\$0		-	-	-	12
2014	\$0		-	-	-	12
2015	\$401,579		1	-	1	13

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

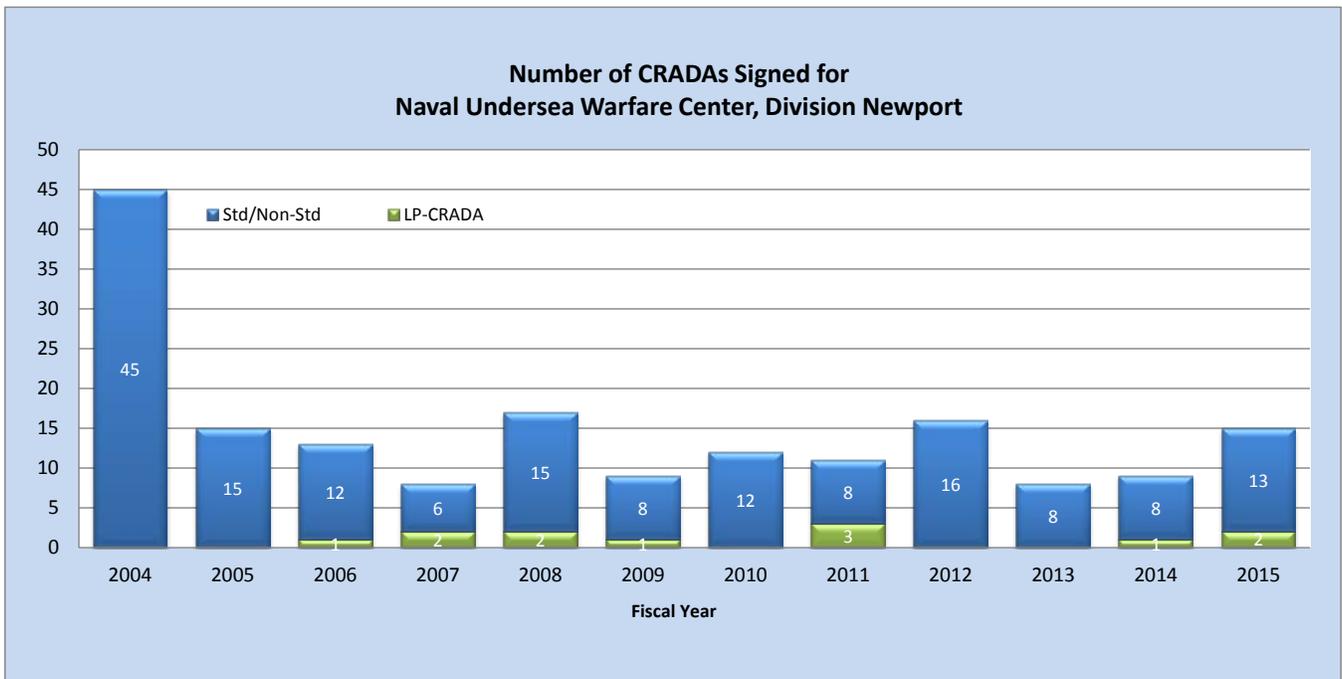
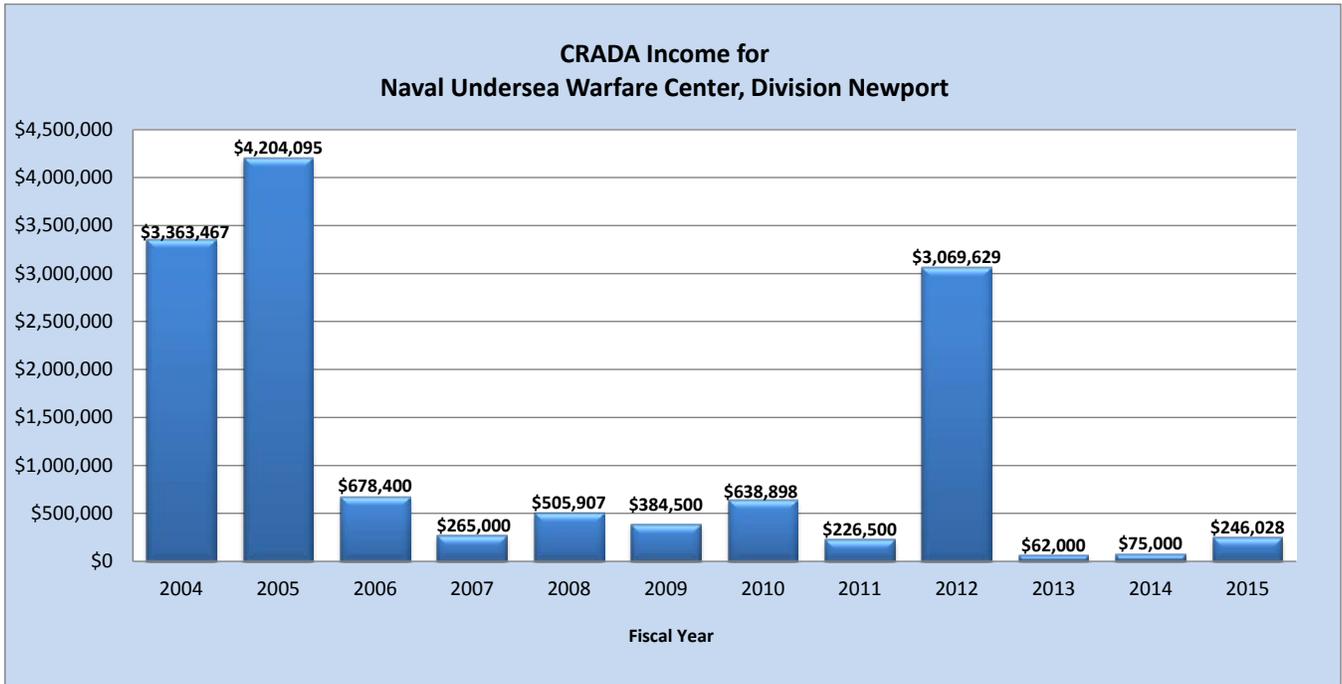


**CRADA History for
Naval Undersea Warfare Center, Division Newport**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$5,630,571		90	8	98	98
2004	\$3,363,467		45	-	45	143
2005	\$4,204,095		15	-	15	158
2006	\$678,400		12	1	13	171
2007	\$265,000		6	2	8	179
2008	\$505,907		15	2	17	196
2009	\$384,500		8	1	9	205
2010	\$638,898		12	-	12	217
2011	\$226,500		8	3	11	228
2012	\$3,069,629	\$250,000	16	-	16	244
2013	\$62,000		8	-	8	252
2014	\$75,000		8	1	9	261
2015	\$246,028		13	2	15	276

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

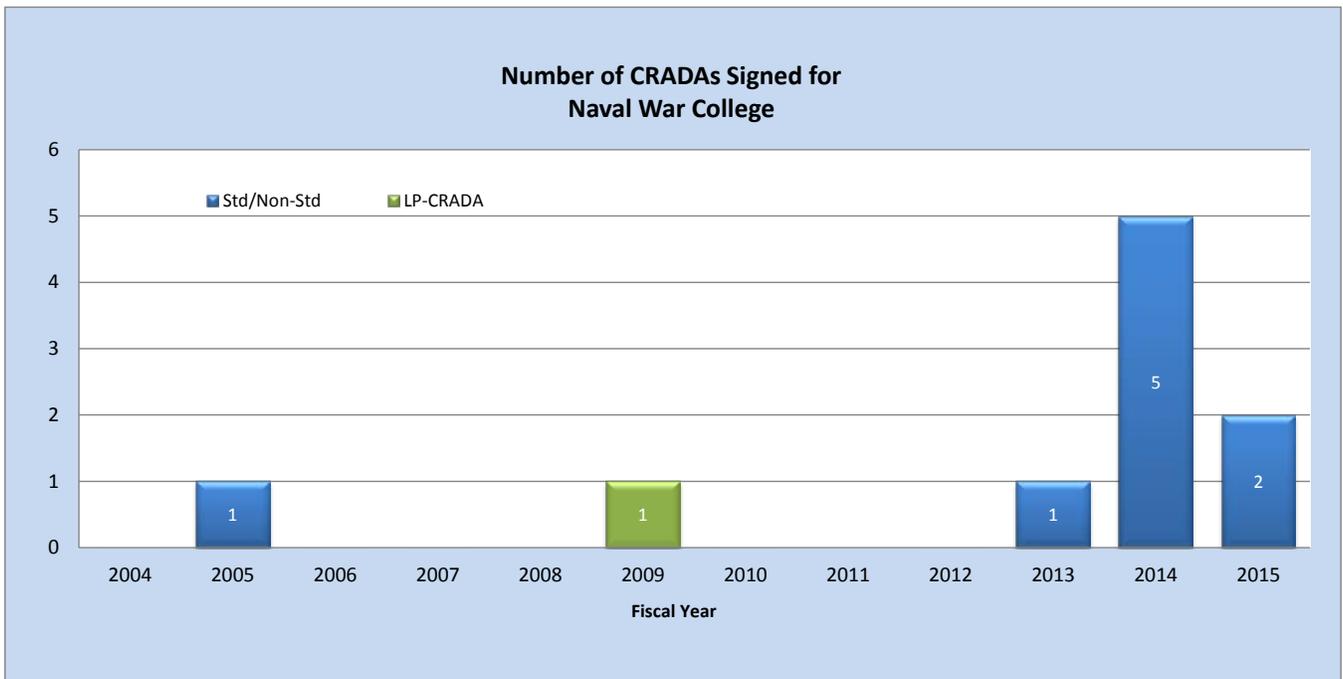
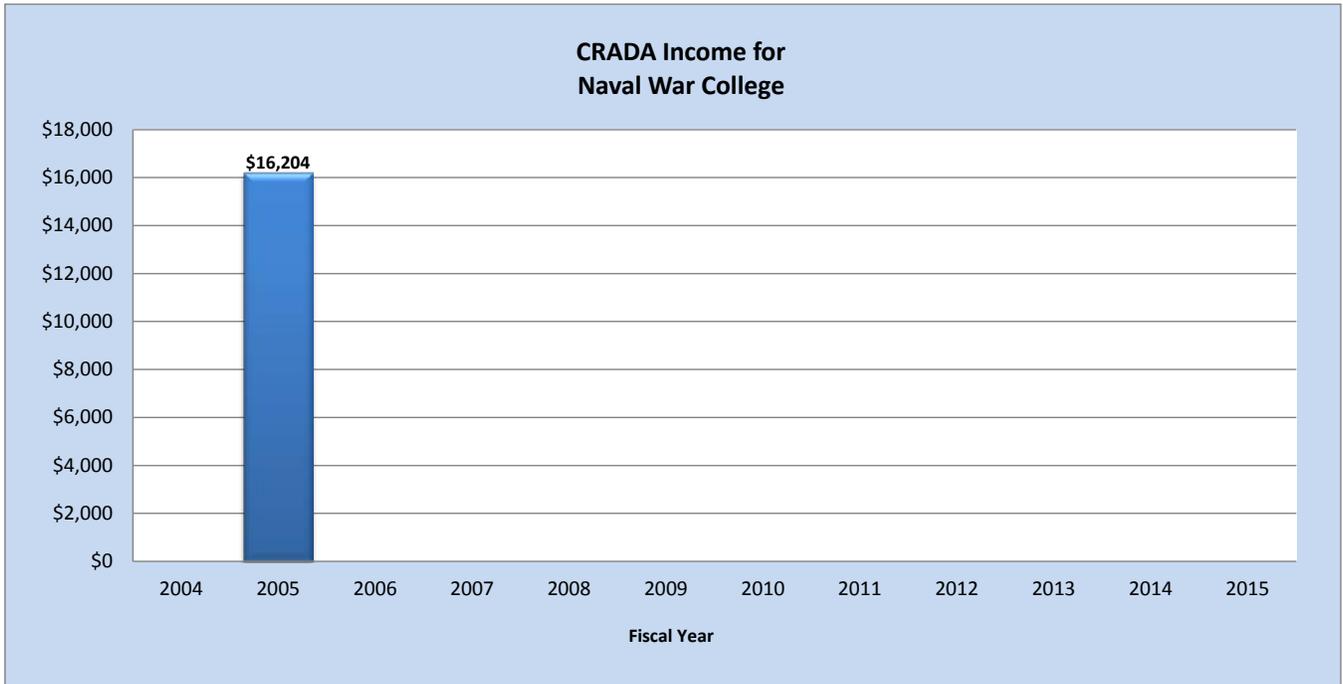


**CRADA History for
Naval War College**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$110,730		5	-	5	5
2004	\$0		-	-	-	5
2005	\$16,204		1	-	1	6
2006	\$0		-	-	-	6
2007	\$0		-	-	-	6
2008	\$0		-	-	-	6
2009	\$0		-	1	1	7
2010	\$0		-	-	-	7
2011	\$0		-	-	-	7
2012	\$0		-	-	-	7
2013	\$0		1	-	1	8
2014	\$0		5	-	5	13
2015	\$0		2	-	2	15

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

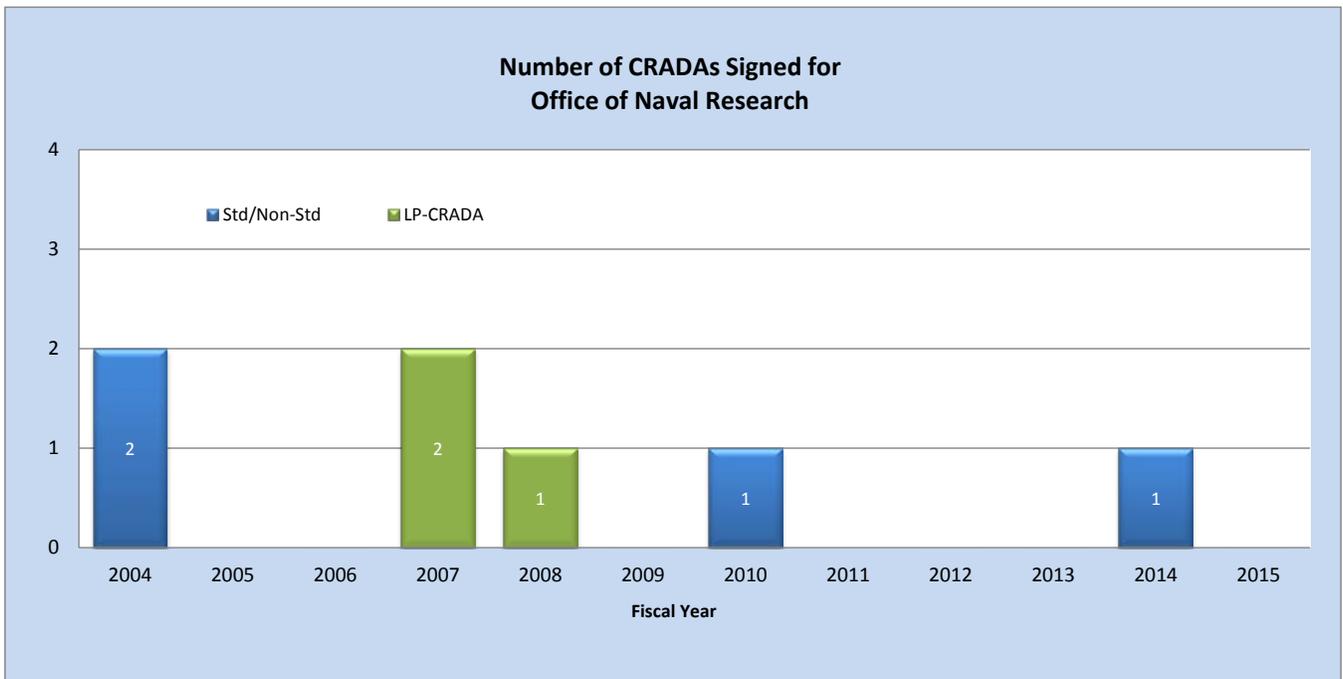
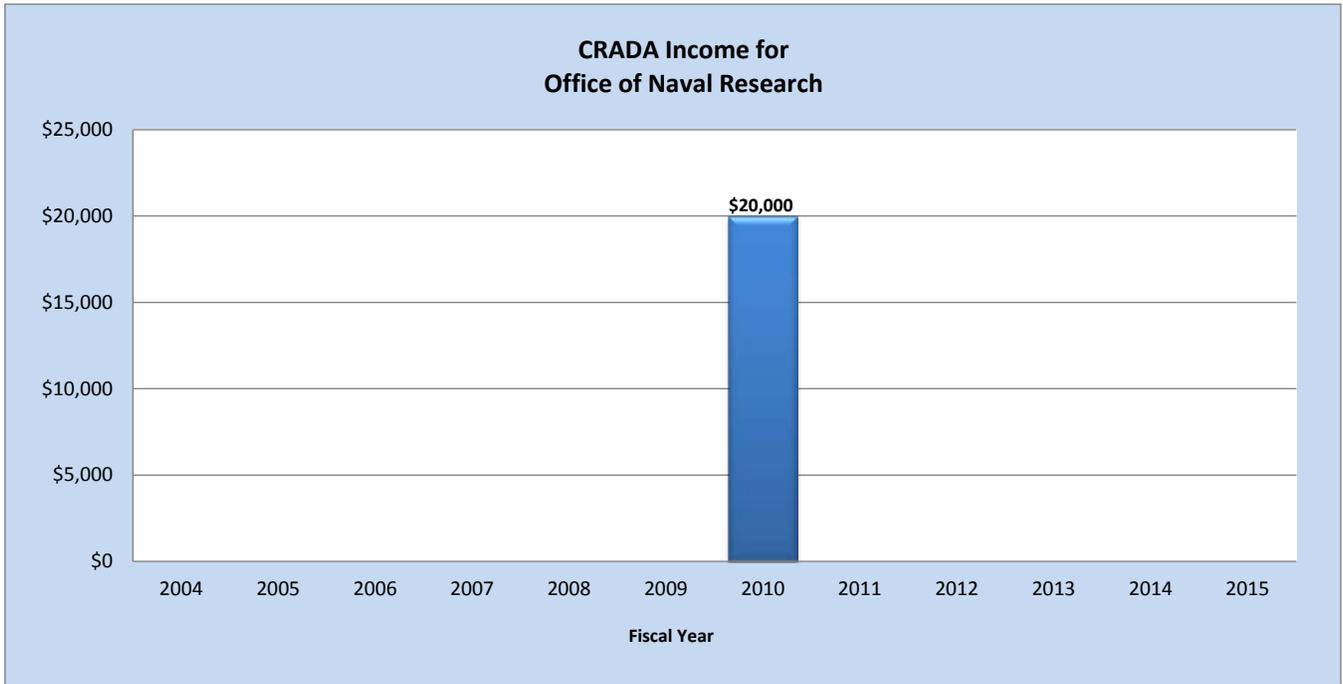


**CRADA History for
Office of Naval Research**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$0		2	2	4	4
2004	\$0		2	-	2	6
2005	\$0		-	-	-	6
2006	\$0		-	-	-	6
2007	\$0		-	2	2	8
2008	\$0		-	1	1	9
2009	\$0		-	-	-	9
2010	\$20,000		1	-	1	10
2011	\$0		-	-	-	10
2012	\$0		-	-	-	10
2013	\$0		-	-	-	10
2014	\$0		1	-	1	11
2015	\$0		-	-	-	11

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

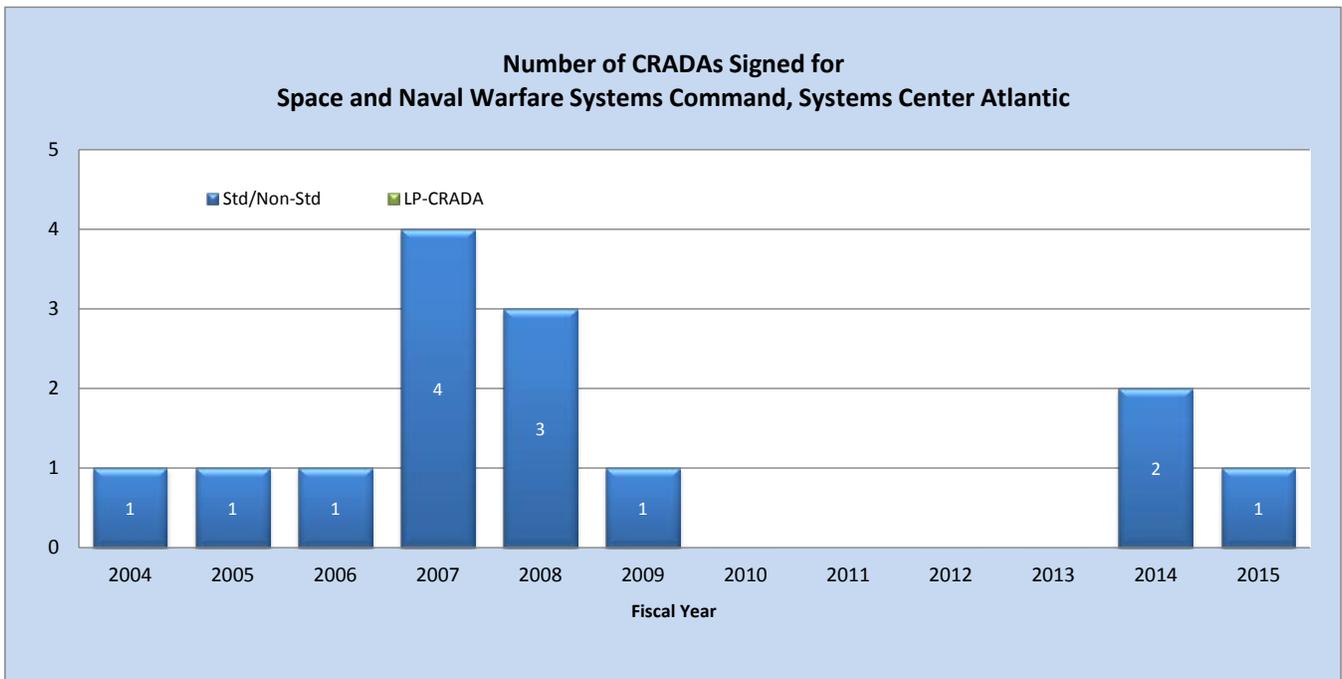
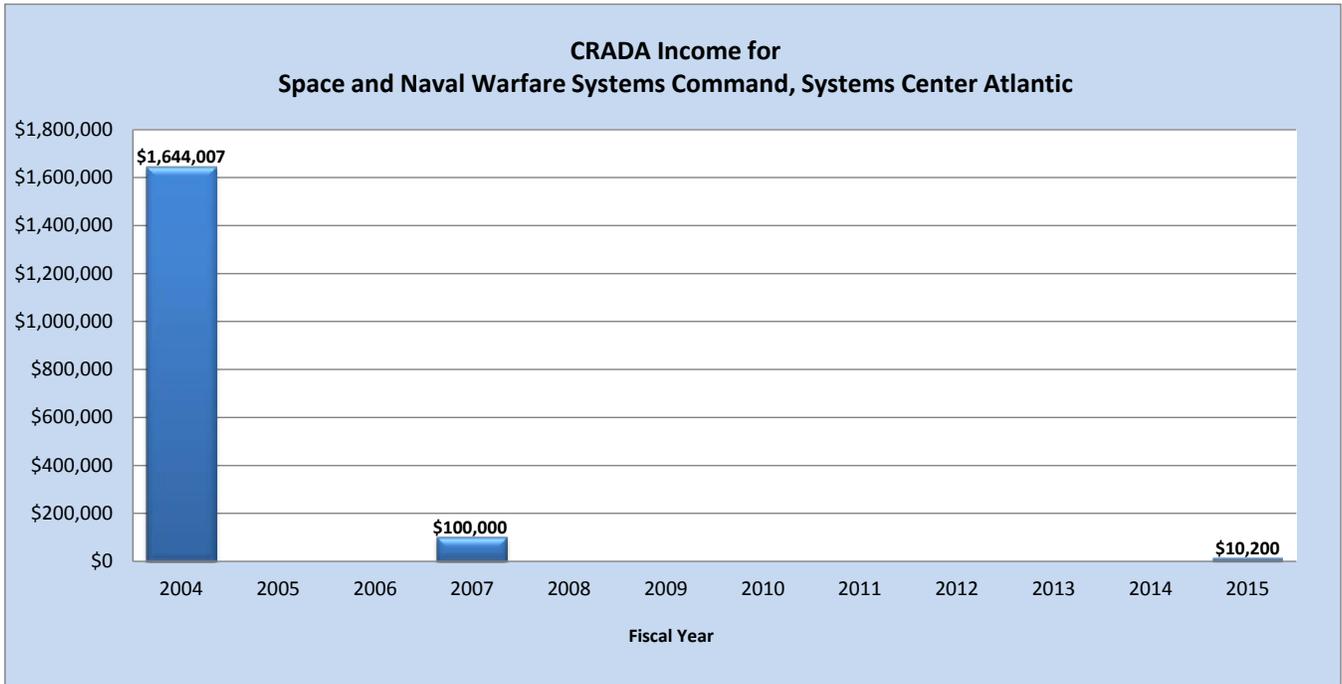


**CRADA History for
Space and Naval Warfare Systems Command, Systems Center Atlantic**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$502,473		8	-	8	8
2004	\$1,644,007		1	-	1	9
2005	\$0		1	-	1	10
2006	\$0		1	-	1	11
2007	\$100,000		4	-	4	15
2008	\$0		3	-	3	18
2009	\$0		1	-	1	19
2010	\$0		-	-	-	19
2011	\$0		-	-	-	19
2012	\$0		-	-	-	19
2013	\$0		-	-	-	19
2014	\$0		2	-	2	21
2015	\$10,200		1	-	1	22

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

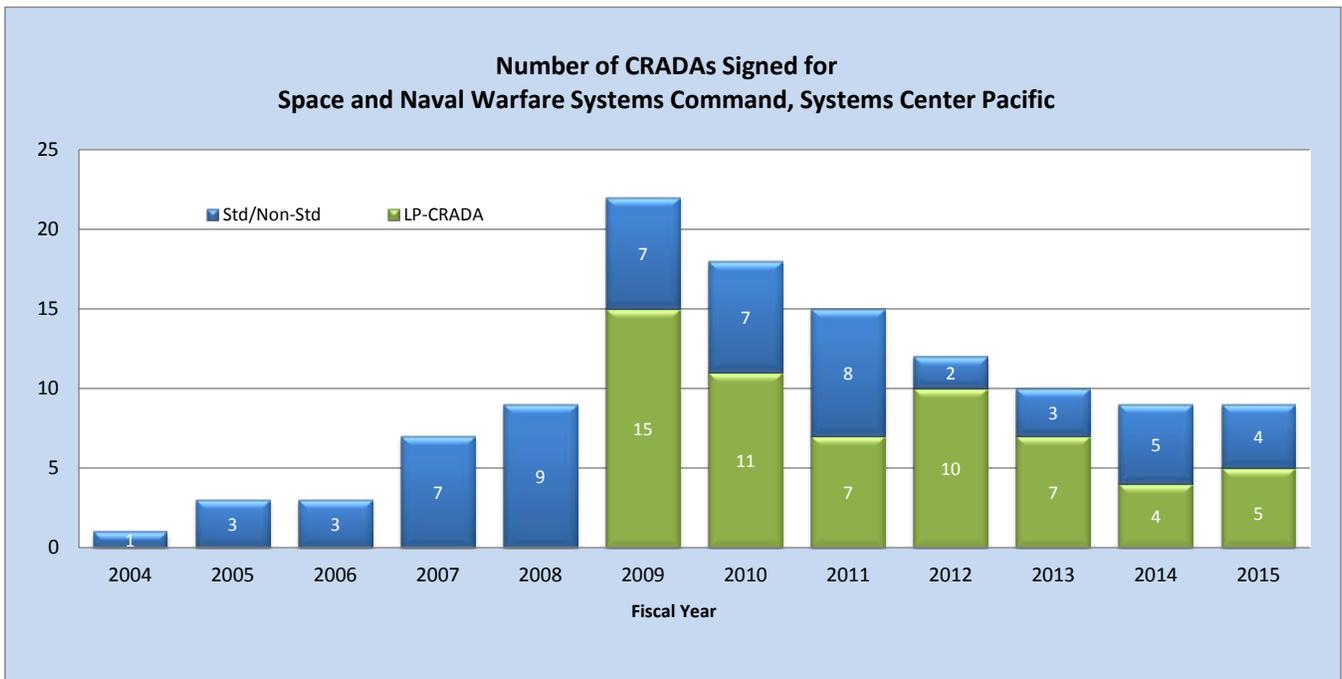
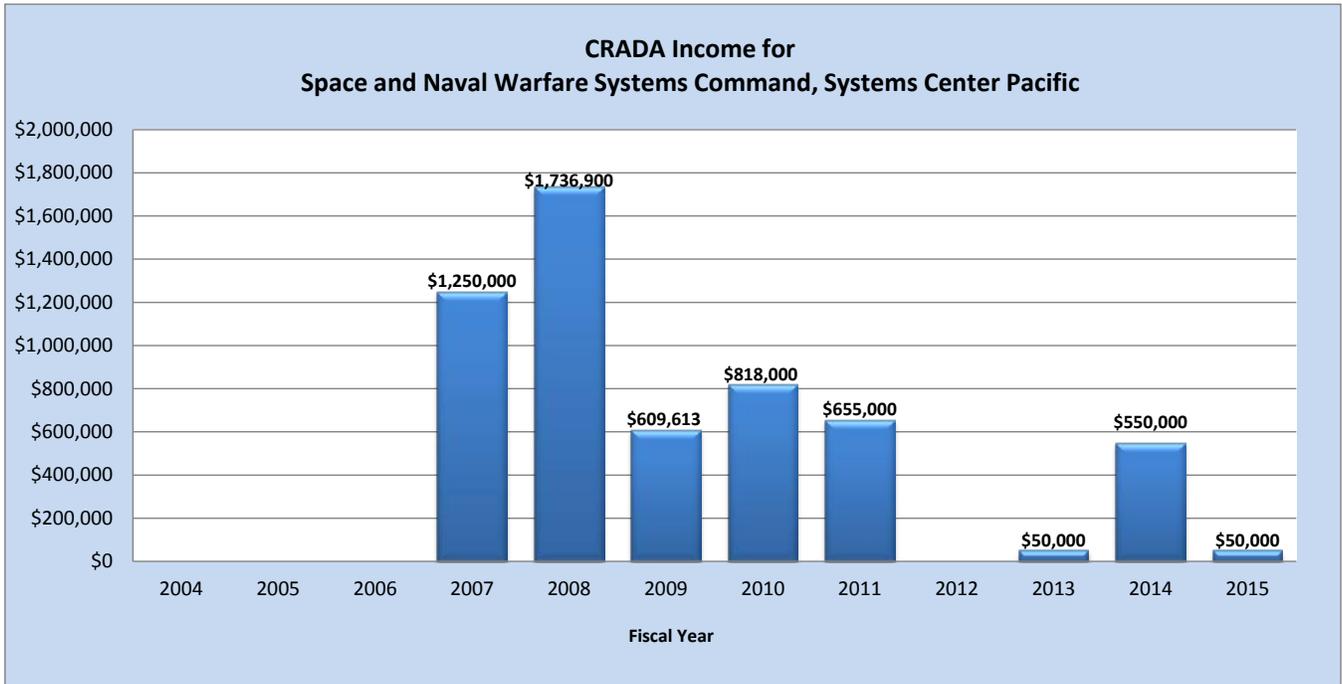


**CRADA History for
Space and Naval Warfare Systems Command, Systems Center Pacific**

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$5,344,859		52	2	54	54
2004	\$0		1	-	1	55
2005	\$0		3	-	3	58
2006	\$0		3	-	3	61
2007	\$1,250,000		7	-	7	68
2008	\$1,736,900		9	-	9	77
2009	\$609,613		7	15	22	99
2010	\$818,000		7	11	18	117
2011	\$655,000		8	7	15	132
2012	\$0		2	10	12	144
2013	\$50,000		3	7	10	154
2014	\$550,000		5	4	9	163
2015	\$50,000		4	5	9	172

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.

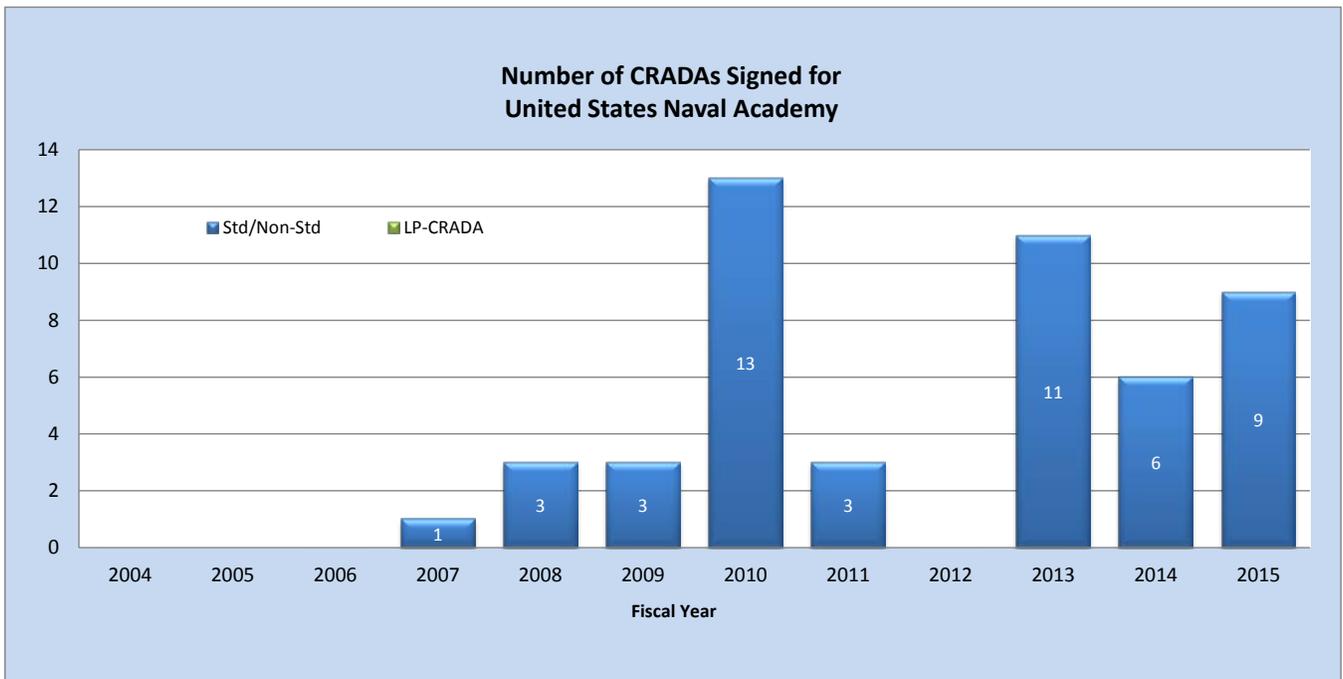
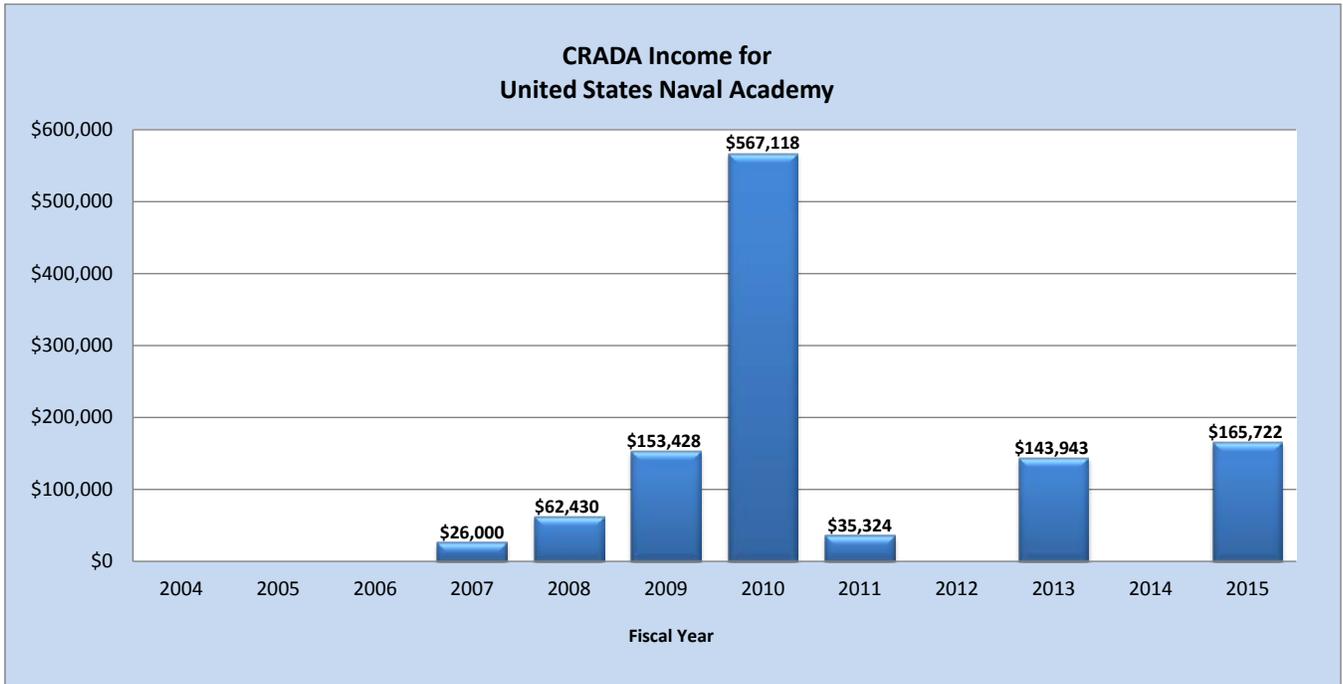


CRADA History for United States Naval Academy

Fiscal Year	CRADA Income*	FY15 Amendment Income	Number of CRADAs Signed			
			Std/Non-Std	LP-CRADA**	Total	Cumulative
1989-2003	\$2,000		3	-	3	3
2004	\$0		-	-	-	3
2005	\$0		-	-	-	3
2006	\$0		-	-	-	3
2007	\$26,000		1	-	1	4
2008	\$62,430		3	-	3	7
2009	\$153,428		3	-	3	10
2010	\$567,118	\$5,000	13	-	13	23
2011	\$35,324		3	-	3	26
2012	\$0		-	-	-	26
2013	\$143,943	\$22,286	11	-	11	37
2014	\$0		6	-	6	43
2015	\$165,722	\$35,500	9	-	9	52

* The entire income for each CRADA is credited to the year that the CRADA was received at the DoN T2 PO. Funds received under any amendments are allocated to the year when the original CRADA was received.

** TA-CRADAs are included in the LP-CRADA column.



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APPENDIX C

FY15 CRADA Listing

Fleet Readiness Center East

Non-Federal Partner	CRADA Number	Subject
3D Systems, Inc.	NCRADA-FRCE-15-001	Use of Additive Manufacturing Methods and Materials for Aerospace Application

Naval Air Warfare Center Aircraft Division, Patuxent River

Non-Federal Partner	CRADA Number	Subject
Aviation Devices and Electronic Components, LLC	LP-CRADA-NAWCADPAX-15-269	Material Transfer of One Hundred (100) Pounds to Five Hundred (500) Pounds Al-Particles and Al-Rich Coatings and Materials from NAWCADPAX to Aviation Devices and Electronic Components, LLC
The Boeing Company	NCRADA-NAWCADPAX-14-251	Future Aircraft/CVW/CVN-21 Integration Study
Boeing Research and Technology	NCRADA-NAWCADPAX-15-258	Collaborative Research on Composite Failure Theories
C&C Ventures, dba Randolph Products	LP-CRADA-NAWCADPAX-15-268	Material Transfer of One Hundred (100) Pounds to Five Hundred (500) Pounds of Al-Rich Coatings from NAWCADPAX to C&C Ventures, dba Randolph Products
Gibraltar Chemical Works, Inc.	LP-CRADA-NAWCADPAX-15-262	Material Transfer of One (1) Kilogram Each of Treated Al-Alloy Power in Two (2) Different Power Sizes from NAWCADPAX to Gibraltar Chemical Works, Inc.
Lehigh University, Department of Mechanical Engineering and Mechanics	LP-CRADA-NAWCADPAX-15-274	Material Transfer of Wedeven Associates Machine Test Disks Specimens from NAWCADPAX to Lehigh University, Department of Mechanical Engineering and Mechanics
Luna Innovations, Inc.	NCRADA-NAWCADPAX-15-271	Advanced Coating for Protection of 5000-Series Aluminum Alloys
Luster-On Products, Inc.	LP-CRADA-NAWCADPAX-15-270	Material Transfer of One Hundred (100) Pounds to Five Hundred (500) Pounds of Test Samples of Al-Rich Coatings from NAWCADPAX to Luster-On Products, Inc.
Microclimatek, Inc.	LP-CRADA-NAWCADPAX-15-260	Equipment Transfer of One (1) Single Embodiment of Personal Portable Environmental Control System from NAWCADPAX to Microclimatek, Inc.
Northrup Grumman Systems Corporation, Aerospace Systems Sector	NCRADA-NAWCADPAX-15-256	Electronic Attack Mission Management Service FACE™ Software Reference Architecture Demonstration

Naval Air Warfare Center Aircraft Division, Patuxent River (Continued)

Non-Federal Partner	CRADA Number	Subject
The Open Group	NCRADA-NAWCADPAX-14-255	Common Computing Architectures and Software Applications Across Department of Defense Avionics Systems in Secure Environment
Rockwell Collins, Inc.	NCRADA-NAWCADPAX-15-259	FACE™ Conformant-Ready Required Navigation Performance Required Navigation Software Solution
Sierra Nevada Corporation	NCRADA-NAWCADPAX-14-254	R&D Capability to Modernize the S-3B Aircraft
Spectrum Coatings Laboratories, Inc.	LP-CRADA-NAWCADPAX-15-267	Material Transfer of Fifty (50) Pounds to Five Hundred (500) Pounds of Al-Rich Coatings from NAWCADPAX to Spectrum Coatings Laboratories, Inc.

Naval Air Warfare Center Training Systems Division

Non-Federal Partner	CRADA Number	Subject
Adacel Systems, Inc.	NCRADA-NAWCTSD-15-059	Support for License # NAWCTSD-15-02, AUFTS Technology
Aptima, Inc.	LP-CRADA-NAWCTSD-15-004	Material Transfer of Periscope Operator Adaptive Training De-Identified Data from NAWCTSD to Aptima, Inc.
HAVOK.COM, Inc.	LP-CRADA-NAWCTSD-15-003	Material Transfer of NAVAIR Portable Source Initiative Datasets for the Southwest USA, East Coast USA, Hawaii, and Moving Models from NAWCTSD to HAVOK.COM, Inc.
Huntington Ingalls, Inc. - Newport News Shipbuilding	NCRADA-NAWCTSD-15-062	Augmented Reality Demonstration and Capability Exploration
The Pennsylvania Department of Military and Veterans Affairs	NCRADA-NAWCTSD-15-061	System Enhancement of the Northeast Counterdrug Training Center Instrumented Raid House, Fort Indiantown Gap, Pennsylvania
Rollins College	NCRADA-NAWCTSD-15-058	Workplace Study

Naval Air Warfare Center Weapons Division, China Lake

Non-Federal Partner	CRADA Number	Subject
Mayflower Communications Company, Inc.	LP-CRADA-NAWCWDCL-15-260	Equipment Transfer of One (1) Small Antenna System from Mayflower Communications Company, Inc. to NAWCWDCL
University of Maryland, College Park	NCRADA-NAWCWDCL-15-261	Chemistry-Assembly-Function Relationships of Reactive Materials

Naval Air Warfare Center Weapons Division, Point Mugu

Non-Federal Partner	CRADA Number	Subject
The Regents of the University of California, Santa Barbara Campus	LP-CRADA-NAWCWDPM-15-259	Equipment Transfer of Three (3) Units of Radar Technology and Hardware from The Regents of The University of California, Santa Barbara Campus to NAWCWDPM

Naval Facilities Engineering and Expeditionary Warfare Center

Non-Federal Partner	CRADA Number	Subject
Biodico, Inc.	NCRADA-NAVFAC-EXWC-15-001	Optimizing Sustainable Distributed Systems to Produce Fuel and Energy Utilizing Renewable Resources Available to DoD Facilities
Foresight Renewable Solutions, LLC	NCRADA-NAVFAC-EXWC-14-001	The FRS Microgrid Demonstration Project
Lockmasters, Inc.	LP-CRADA-NAVFAC-EXWC-15-001	Material Transfer of One (1) Spindle Loading Tool from Naval Facilities Engineering and Expeditionary Warfare Center to Lockmasters, Inc.
Northwest Energy Innovations	NCRADA-NAVFAC-EXWC-13-002	NWEI Wave Energy Demonstration at the Navy's WETS 30m Project Site
SAAB Barracuda, LLC	NCRADA-NAVFAC-EXWC-15-002	Development and Testing of Customized Solar Shade Solutions for Containerized Living Units at Camp Lemonnier, Djibouti

Naval Medical Center, Portsmouth

Non-Federal Partner	CRADA Number	Subject
Auris Medical, Inc.	NCRADA-NMCP-14-255	Tinnitus Research
Board of Regents of the University of Oklahoma Health Sciences Center	NCRADA-NMCP-14-260	Improving Family Relationships After Deployment: Use of Parent-Child Interaction Therapy with Military Families
Children's National Medical Center	LP-CRADA-NMCP-15-302	Material Transfer of Biospecimens for Molecular Analysis of Pediatric Brain Tumors from NMCP to Children's National Medical Center
H&H Medical Corporation	NCRADA-NMCP-14-268	Efficacy and Safety of a Novel Modified Veress Needle in Comparison to Angiocatheter Decompression of Tension Pneumothorax in a Yorkshire Swine (<i>Sus scrofa</i>) Model
Health ResearchTx, LLC	NCRADA-NMCP-14-273	Health Outcomes Research Center of Excellence
New York University School of Medicine	NCRADA-NMCP-14-264	A Pilot Study to Test the Efficacy of Psychologically Based Physical Therapy Training for Treating Deployed U.S. Sailors and Marines with Musculoskeletal Injuries
New York University School of Medicine	NCRADA-NMCP-14-272	A Pilot Study to Test the Efficacy of Psychologically Based Physical Therapy Training for Treating Deployed U.S. Sailors and Marines with Musculoskeletal Injuries
The Regents of the University of California	NCRADA-NMCP-15-285	Endometrial Sampling in Women of Reproductive Age
Samueli Institute	NCRADA-NMCP-14-261	Program Evaluation of Back on Track Program
Trustees of Dartmouth College	NCRADA-NMCP-14-269	NRG Oncology Sponsored Research Protocols
University of Alabama, Birmingham	NCRADA-NMCP-14-263	Decision Aids for the Management of Suspicious Occlusal Caries Lesions
University of Washington	NCRADA-NMCP-13-226	Military Continuity Project

Naval Medical Center, San Diego

Non-Federal Partner	CRADA Number	Subject
The Geneva Foundation	NCRADA-NMCSO-15-449	CIP# NMCSO.2014.0031; A Randomized Controlled Trial to Decrease Suicidal Thinking Using Ketamine
The Geneva Foundation	NCRADA-NMCSO-15-453	CIP# NMCSO.2014.0050; Global Health Engagement Missions: Lessons Learned Aboard U.S. Naval Hospital Ships

Naval Medical Center, San Diego (Continued)

Non-Federal Partner	CRADA Number	Subject
Massachusetts Eye and Ear Infirmary	LP-CRADA-NMCS-15-454	CIP# NMCS.2011.0147; Postoperative Ibuprofen and the Risk of Bleeding after Tonsillectomy with or without Adenoidectomy
Mayo Clinic	LP-CRADA-NMCS-15-450	Material Transfer of Forty Plus (40+) De-Linked and De-Identified Subject Data Points from NMCS to Mayo Clinic
Washington University	NCRADA-NMCS-14-446	CIP# NMCS.2013.0021; Investigating the Neurobiology of Tinnitus

Naval Medical Research and Development Command

Non-Federal Partner	CRADA Number	Subject
Abteilung Bakteriologie und Toxinologie, Institut für Mikrobiologie der Bundeswehr	LP-CRADA-NMRC-15-9570	Material Transfer of Two Hundred (200) ul/each of Rickettsia Antigens from NMRC to Abteilung Bakteriologie und Toxinologie, Institut für Mikrobiologie der Bundeswehr
ADA Foundation Dr. Anthony Volpe Research Center	NCRADA-NAMRU-SA-14-9388	Antibacterial Effects of Dental Resins Containing Visible Light Activated Nanoparticles
The Administrators of the Tulane Educational Fund Department of Microbiology and Immunology, Tulane University School of Medicine	LP-CRADA-NMRC-15-9524	Material Transfer of LTR192G, LTR192G/L211A and dmLT-G33D from The Administrators of the Tulane Educational Fund Department of Microbiology and Immunology, Tulane University School of Medicine to NMRC
Advratech, LLC	NCRADA-NAMRU-D-14-9416	Detection of Breath Biomarkers of Fatigue with Novel Terahertz Technology
ATRECA, Inc.	NCRADA-NMRC-14-9377	Phase I Trial with Challenge to Assess the Safety and Biomarkers of Protection in Malaria-Naive Adults of Immunization via Mosquito Bite with Radiation-Attenuated <i>Plasmodium falciparum</i> Sporozoites
Becton, Dickinson and Company	LP-CRADA-NMRC-15-9583	Material Transfer of a Novel Flow Cytometry Panel Software Program from Becton, Dickinson and Company to NMRC
The Bill & Melinda Gates Foundation	NCRADA-NMRC-15-9579	Immunization via Mosquito Bite with Radiation-Attenuated Sporozoites

Naval Medical Research and Development Command (Continued)

Non-Federal Partner	CRADA Number	Subject
BioFire Defense, LLC	LP-CRADA-NHRC-15-9467	Material Transfer of ~1500 Clinical Samples, BioFire Film Array Instruments and ~1500 EZ RP Pouches from BioFire Defense, LLC to NHRC
Biomerieux, Inc.	LP-CRADA-NMRC-14-9423	Material Transfer of <i>Acinetobacter baumannii</i> from NMRC to Biomerieux, Inc.
The Board of Regents of the University of Nebraska, on behalf of the University of Nebraska-Lincoln	LP-CRADA-NMRC-14-9439	Material Transfer of Catheter System to Automatically Deliver/Remove OMBs to/from the Peritoneal Cavity from The Board of Regents of the University of Nebraska, on behalf of the University of Nebraska-Lincoln to NMRC
Centro Nacional de Enfermedades Tropicales	NCRADA-NAMRU-6-14-9406	Identification of Arboviruses, Hantavirus, Arenavirus, Respiratory Viruses, and Other Emerging Infections from Biological Samples
The Chancellor, Masters and Scholars of the University of Oxford	LP-CRADA-NMRC-15-9614	Material Transfer of Vaccines from The Chancellor, Masters and Scholars of the University of Oxford to NMRC
The Chancellor, Masters and Scholars of the University of Oxford	NCRADA-NMR-11-3922	Evaluation of Immunogenicity and Protective Efficacy Against <i>Plasmodium falciparum</i> Malaria Challenge of PfRH5 Vaccines in <i>Aotus Nancymae</i>
Columbia University	NCRADA-NAMRU-6-11-3932	Pathogen Discovery in Latin America
Department of Molecular Biology, Umea University	LP-CRADA-NMR-14-9404	Material Transfer of ETEC Strains Expressing Adhesive Fimbriae, Rabbit Polyclonal Antiserum Preparations, and Recombinant Proteins from NMRC to Department of Molecular Biology, Umea University
Diatherix Laboratories, Inc.	LP-CRADA-NHRC-15-9469	Material Transfer of Two Hundred (200) ul Clinical Enteric Samples and Two Hundred (200) Film Array Pouches from Diatherix Laboratories, Inc. to NHRC
Duke University	NCRADA-NAMRU-6-14-9398	Joint Health Research in Madre de Dios Region, Peru
Etvax AB	LP-CRADA-NMRC-14-9420	Material Transfer of CS1+CS3 ETEC Strain from NMRC to Etvax AB
Faraday Pharmaceuticals, Inc.	LP-CRADA-NAMRU-SA-15-9627	Material Transfer of Hydrogen Sulfide and Vehicle Control Concentrated Solutions from Faraday Pharmaceuticals, Inc. to NAMRU-SA
Genocea Biosciences, Inc.	NCRADA-NMRC-15-9545	Analysis of De-Identified Peripheral Blood Mononuclear Cells Following Immunization via Mosquito Bite with Radiation-Attenuated <i>Plasmodium falciparum</i> Sporozoites
H2Optx, Inc.	LP-CRADA-NMRC-14-9425	Material Transfer of mPAT System with Platerator Accessory from H2Optx, Inc. to NMRC

Naval Medical Research and Development Command (Continued)

Non-Federal Partner	CRADA Number	Subject
Icahn School of Medicine at Mount Sinai	NCRADA-NAMRU-6-15-9453	Naturally-Occurring Antibodies to Alphavirus Infection
Imperial College of Science, Technology and Medicine	LP-CRADA-NMRC-14-9291	Material Transfer of Animal and Human Bone Tissue from NMRC to Imperial College of Science, Technology and Medicine
Integrum AB	LP-CRADA-NMRC-14-9287	Material Transfer of Implants and Instrumentation from Integrum AB to NMRC
Intelligent Automation, Inc.	NCRADA-NHRC-14-9374	Mobile Application for Prescription Drug-Abuse Education
Johns Hopkins University	LP-CRADA-NMRC-15-9554	Material Transfer of Human-Derived Hepatocyte Cell Line HC-04 Cells from NMRC to Johns Hopkins University
Karyopharm Therapeutics, Inc.	LP-CRADA-NMRC-15-9500	Material Transfer of Ten (10) mg KPT-335 SINE Compounds from Karyopharm Therapeutics, Inc. to NMRC
MRIGlobal	NCRADA-NMRC-15-9513	End to End Whole Genome Sequencing Diagnostic System, Roll-Up for Base Year, Option I and Option II
Mystic Aquarium, A Division of Sea Research Foundation	NCRADA-NSMRL-13-9164	Bioeffects of Underwater Sound on Aquatic Organisms
NanoComposix, Inc.	NCRADA-NAMRU-SA-14-9347	Antibacterial Effects of Dental Resins Containing Visible Light Activated Nanoparticles
National University of Singapore acting through its Duke-NUS Graduate Medical School, Singapore	LP-CRADA-NMRC-14-9387	Material Transfer of De-Identified Patient Samples from National University of Singapore acting through its Duke-NUS Graduate Medical School, Singapore to NMRC
National University of Singapore acting through its Duke-NUS Graduate Medical School, Singapore	LP-CRADA-NMRC-15-9610	Material Transfer of Bat RNA from National University of Singapore acting through its Duke-NUS Graduate Medical School, Singapore to NMRC
Novavax, Inc.	LP-CRADA-NMRC-15-9488	Material Transfer of Ten (10) mg Recombinant Makona EBOV GP Antigen from Novavax, Inc. to NMRC
OraSure Technologies, Inc.	LP-CRADA-NMRC-15-9452	Material Transfer of Polyclonal and Monoclonal Antibodies Specific to Ebola Virus from NMRC to OraSure Technologies, Inc.
PATH	NCRADA-NMRC-14-9368	Functional Assessment of Hypothesis-Driven Pre-Erythrocytic Antibody Target Identification Consortium Polyclonal and Monoclonal Antibodies Using Inhibition of Liver Stage Development Assay

Naval Medical Research and Development Command (Continued)

Non-Federal Partner	CRADA Number	Subject
PATH Vaccine Solutions	NCRADA-NMRC-15-9589	Preparation for Clinical Testing: Repeat Dose GLP Toxicology Study with a CS6-ETEC Adhesin and Human Model Refinement Study of a CS6-ETEC Challenge Strain
Penn State Milton S. Hershey Medical Center and College of Medicine	NCRADA-NMRC-14-9330	Determinants of Household Drinking Water Quality and Diarrheagenic Infections in Iquitos, Peru
The Pennsylvania State University and The Milton S. Hershey Medical Center	NCRADA-NAMRU-6-15-9470	Risk Factors for Severe <i>Plasmodium vivax</i> Malaria in Peru
PharmaJet, Inc.	LP-CRADA-NHRC-15-9468	Material Transfer of Five Hundred (500) Doses of bioCSL 2014-2015 Afluria Flu Vaccine, Five Hundred (500) Sterilized Single-Use Cartridges and Twelve (12) Stratis™ Injector Kits from PharmaJet, Inc. to NHRC
Pontificia Universidad Catolica Del Peru	NCRADA-NAMRU-6-14-9328	Development, Testing, Monitoring, Evaluation, Implementation and Adoption of Automated Data Capture, Visualization, Analysis, Dissemination and Alerting Solutions for Public Health Management, Decision-Making, Early Response and Capacity Building in Resource-Limited Settings
The Regents of the University of California, Davis	NCRADA-NAMRU-6-14-9412	Quantifying Heterogeneities in Dengue Virus Transmission Dynamics
The Regents of the University of California, San Diego	LP-CRADA-NMR-14-9367	Material Transfer of Human Skin Samples and Culture Isolates from The Regents of the University of California, San Diego to NHRC
The Regents of the University of Colorado	NCRADA-NAMRU-SA-14-9424	Investigation of Physiologic, Hematologic, Immunologic and Metabolic Consequences of Traumatic Hemorrhagic Shock and Resuscitation
Rigshospitalet, Department of Orthopaedic Surgery (Musculoskeletal Tumor Section)	LP-CRADA-NMRC-15-9520	Material Transfer of De-Identified Serum Samples from Rigshospitalet, Department of Orthopaedic Surgery (Musculoskeletal Tumor Section) to NMRC
SAB Biotherapeutics	LP-CRADA-NMRC-15-9462	Material Transfer of Enterotoxigenic <i>Escherichia coli</i> Strain B7A, Purified CS6 and Purified O148 LPS from NMRC to SAB Biotherapeutics
Sanofi Pasteur Biologics, LLC	NCRADA-NHRC-14-9389	ACAM2000® Myopericarditis Registry

Naval Medical Research and Development Command (Continued)

Non-Federal Partner	CRADA Number	Subject
Sanofi Pasteur Biologics, LLC	NCRADA-NHRC-14-9390	A Phase IV Prospective Safety Surveillance Cohort Study of ACAM2000® in Deploying Military Personnel
Takeda Vaccines, Inc.	NCRADA-NHRC-15-9236	Phase IIb, Double Blind Trial of the Norovirus Bivalent VLP Vaccine
The Task Force for Global Health, Inc. on behalf of its Tephinet Program	NCRADA-NMRC-14-9342	Research, Development, Testing, Evaluation, Implementation and Adoption of Automated Solutions for Data Capture, Visualization, Analysis, Dissemination, and Alerting for Public Health Management, Decision-Making and Early Response in Resource-Limited Settings
Texas Tech University Health Sciences Center	LP-CRADA-NMR-14-9371	Material Transfer of One Hundred (100) Vials of Strains of Bacteriophages and Bacteria and Related Nucleic Acid Polymer from Texas Tech University Health Sciences Center to NAMRU-SA
TriLink BioTechnologies, Inc.	NCRADA-NHRC-15-9562	NHRC-TriLink BioTechnologies, Inc. Collaboration to Convert NHRC Conventional PCR Assays to Real-Time PCR Assays
Universidad El Bosque	NCRADA-NAMRU-6-14-9430	Respiratory Viruses for Respiratory Syncytial Virus and Metapneumovirus
University of Calabar	NCRADA-NAMRU-3-15-9664	Eco-Geographical Distribution and Insecticide Susceptibility of Malaria Vectors in Cross River State, Nigeria
University of California, San Diego	LP-CRADA-NMRC-15-9605	Material Transfer of One (1) Vial of a Panel of Fimbrial Adhesin Proteins of Enterotoxigenic <i>Escherichia coli</i> and Parental Bacterial Strains from NMRC to University of California, San Diego
University of California, San Francisco	NCRADA-NAMRU-6-15-9518	Digital Disease Detection and Molecular Epidemiology of Viral Pathogens in Peru
University of Cincinnati	NCRADA-NMRC-14-9405	Silver Nanoparticle-Enhanced Photosensitizers as Antibacterial Agents for Wound Infection Treatment
University of Colorado, Denver	NCRADA-NAMRU-D-14-9409	Effects of Toxin Exposure and the Evaluation of Novel Therapies to Alleviate Toxin-Induced Lung Injury in a Rat Model of Exposure
University of Ghana, Noguchi Memorial Institute for Medical Research	LP-CRADA-NAMRU-3-14-9413	Material Transfer of <i>N. gonorrhoea</i> Bacterial Isolates from University of Ghana, Noguchi Memorial Institute for Medical Research to NAMRU-3
University of Ghana, Noguchi Memorial Institute for Medical Research	LP-CRADA-NAMRU-3-14-9414	Material Transfer of Human and Animal Sera and Insect Vectors from University of Ghana, Noguchi Memorial Institute for Medical Research to NAMRU-3

Naval Medical Research and Development Command (Continued)

Non-Federal Partner	CRADA Number	Subject
University of Ghana, Noguchi Memorial Institute for Medical Research	LP-CRADA-NAMRU-3-14-9415	Material Transfer of Human Serum Samples from University of Ghana, Noguchi Memorial Institute for Medical Research to NAMRU-3
University of Malaya Represented by Tropical Infectious Diseases Research & Education Centre Department of Medical Microbiology	LP-CRADA-NAMRU-2-14-9428	Material Transfer of Bio-plex 200 by Bio-Rad from NAMRU-2 to University of Malaya Represented by Tropical Infectious Diseases Research & Education Centre Department of Medical Microbiology
The University of North Carolina at Greensboro	LP-CRADA-NMRC-15-9573	Material Transfer of Human Subject Data from NMRC to The University of North Carolina at Greensboro
The University of Notre Dame	NCRADA-NMRC-14-9364	An Integrated RNA-Based Pathogen Diagnostic Platform
The University of Notre Dame	NCRADA-NMRC-15-9521	Raman Spectroscopy of Wound Effluent
University of Peradeniya, Sri Lanka	LP-CRADA-NMRC-14-9382	Material Transfer of Various Recombinant and Whole Cell Antigens, Positive and Negative Serum Samples, DNA Plasmid Standard, Primers and Probes for the Diagnosis of Various Rickettsial-Related Diseases from NMRC to University of Peradeniya, Sri Lanka
University of South Alabama	LP-CRADA-NMRC-15-9593	Material Transfer of Olysaccharide and Protein Antigens from University of South Alabama to NMRC
The University of Texas at Austin	NCRADA-NMRC-14-9370	Study of Pathogenic Bacteria Whole Genome Expression in the Human Gut
University of Texas Medical Branch	NCRADA-NAMRU-6-14-9431	A Novel Field-Deployable Point-of-Care Diagnostic Test for Cutaneous Leishmaniasis
University of Texas Medical Branch	NCRADA-NAMRU-6-15-9458	Biological Material Transfer for Arbovirus Identification
University of Texas at San Antonio	NCRADA-NAMRU-SA-14-9299	Development of a Novel Bioactive Chitosan-Fibrinogen Wound Healing Dressing for Craniofacial Injuries
Walter and Eliza Hall Institute of Medical Research	LP-CRADA-NMRC-15-9555	Material Transfer of Human-Derived Hepatocyte Cell Line HC-04 Cells from NMRC to Walter and Eliza Hall Institute of Medical Research
Washington University	LP-CRADA-NAMRU-6-15-9559	Material Transfer of One Hundred (100) Coded, De-Identified Cultured Strains of <i>Leishmania</i> or Parasite Samples from NAMRU-6 to Washington University
Washington University	LP-CRADA-NMRC-14-9411	Material Transfer of Human Clinical Fecal Samples from NAMRU-6 to Washington University

Naval Meteorology and Oceanography Command

Non-Federal Partner	CRADA Number	Subject
Environmental Systems Research Institute, Inc.	NCRADA-COMNAVMETOCOM-14-01	Geospatial Information Science Prototype Laboratory

Naval Postgraduate School

Non-Federal Partner	CRADA Number	Subject
Exelis Visual Information Solutions, Inc.	NCRADA-NPS-15-0208	Cooperative Remote Sensing Research and Data Analysis
Inmarsat, Inc.	NCRADA-NPS-15-0207	Humanitarian Assistance and Disaster Relief Operations Study
Intelligent Automation, Inc.	LP-CRADA-NPS-15-0090	Equipment Transfer of ARGUS Perimeter Security System from Intelligent Automation, Inc. to NPS
L-3 Communications Integrated Systems, L.P., Mission Integration Division	NCRADA-NPS-14-0203	Multi-Resolution Detection
Perceptronics Solutions, Inc.	NCRADA-NPS-14-0206	Dynamic Agent-Based Re-Planning of Tasks R&D Program
Rivera Consulting Group, Inc.	NCRADA-NPS-15-0209	Development of a Monterey Phoenix Prototype Tool
Sierra Engineering, Inc.	NCRADA-NPS-15-0211	Prediction and Measurement of Carbon Build-Up in Film Cooled Rocket Engines
Stochastech Corporation dba Tempest Technologies	NCRADA-NPS-15-0210	Pseudospectral Optimal Control for Flight Trajectory Optimization
University of Alabama	LP-CRADA-NPS-14-0089	Equipment Transfer for the Testing and Developing of Methods for Additive Manufacturing and Repair of Metallic Structures from NPS to the University of Alabama

Naval Research Laboratory

Non-Federal Partner	CRADA Number	Subject
The Aerospace Corporation	NCRADA-NRL-15-576	Complex Magnetospheric Ballooning Mode Theory
Attollo Engineering, LLC	NCRADA-NRL-15-575	Infrared Interband Cascade Light Emitting Diode Arrays
BAE Systems Information and Electronic Systems Integration, Inc.	NCRADA-NRL-15-569	Lead Salt Material Phenomenology
BellBrook Labs	NCRADA-NRL-15-573	Quantum Dots for TR-FRET Based Detection of Nucleotides
The Boeing Company	NCRADA-NRL-14-558	MSA Collaboration
Brimrose Technology Corporation	NCRADA-NRL-15-574	High Resolution XRD Characterization of Mercurous Halide Single Crystals for Acousto-Optic Tunable Filter Fabrication
Calabazas Creek Research, Inc.	NCRADA-NRL-15-567	Advanced Code for Photocathode Design
Camlin Technologies, Ltd.	NCRADA-NRL-15-578	Tunable Vertical Emitting Interband Cascade Laser at 3.36 μm
FlexEI, LLC	NCRADA-NRL-14-557	Zn Sponge Anodes to Enable Rechargeable Ni/Zn Batteries for Electronic Cigarettes and Wearable Medical Monitors
Gnosys Systems, Inc.	NCRADA-NRL-15-566	Predictive High-Fidelity Modeling Capability for High-Brightness Photoinjectors
La Trobe University	NCRADA-NRL-14-555	Synthetic Electric Microbial Biosensors and Synthetic Biology Electroactive Whole Cell Microbial Biosensors
Leland Stanford University	NCRADA-NRL-14-554	Basic Single-Event and Total-Ionizing Dose Mechanism in Ge- and InGaAs-Based CMOS Transistors with ALD and PEALD High- κ Dielectric
MATSYS, Inc.	NCRADA-NRL-15-570	Consolidation of Metallic Powder by Microwave Energy and its Evaluation
Optical Sciences Corporation	NCRADA-NRL-15-571	Mid-IR Sources for Solar Spectrum Simulator
PolymerPlus, LLC	NCRADA-NRL-14-553	Nanolayered Polymer Optics
Pumpkin, Inc.	NCRADA-NRL-15-563	SUPERNOVA
Randolph Products Company	NCRADA-NRL-14-556	Polysiloxane Non-Skid Coating Formulation Development
The Regents of the University of California	NCRADA-NRL-15-564	Quantum-Enhanced Motion Sensing Using Entangled Spins in Quantum Dots

Naval Research Laboratory (Continued)

Non-Federal Partner	CRADA Number	Subject
Sensor Electronic Technology, Inc.	NCRADA-NRL-15-572	Compact Electron-Beam Pumped UV Laser
Southeastern Universities Research Association, Inc.	NCRADA-NRL-14-549	Testbed to Improve Understanding and Operational Forecasts of Extreme Events and Chronic Environmental Conditions Affecting the U.S. in the Gulf of Mexico Region
University of Maryland	NCRADA-NRL-15-562	<i>In Situ</i> Mechanistic Studies of CWA Simulant Reactions with Filtration/Destruction Materials
University of Messina	NCRADA-NRL-15-561	High Frequency Noise Parameters Extraction of On-Wafer Devices

Naval Surface Warfare Center, Carderock Division

Non-Federal Partner	CRADA Number	Subject
2d3 Sensing	LP-CRADA-NSWCCA-15-191	Equipment Transfer of Catalina Media Server and TacitView Motion Imagery Exploitation Client from 2d3 Sensing to NSWCCA
3D Systems, Inc.	NCRADA-NSWCCA-15-194	Additive Manufacturing for Naval Applications
Avalex Technologies	LP-CRADA-NSWCCA-15-197	Equipment Transfer of ACM9443 Communications Management Unit, AVR8414 Digital Video Recorder, AVM4227 Widescreen Display, and AVM4227Q Quad View Widescreen Display from Avalex Technologies to NSWCCA
BAE Systems Information and Electronic Systems Integration, Inc.	LP-CRADA-NSWCCA-15-188	Equipment Transfer of Lock-On Naval Electro-Optic Sensor Suite from BAE Systems Information and Electronic Systems Integration, Inc. to NSWCCA
Broadband Discovery Systems, Inc.	NCRADA-NSWCCA-14-173	Mine Countermeasure Development
Chesapeake Technology International Corporation	LP-CRADA-NSWCCA-15-199	Equipment Transfer of a Situational Awareness Tool Set from Chesapeake Technology International Corporation to NSWCCA
Consiglio Nazionale delle Ricerche Istituto Nazionale per Studi ed Esperienze di Architettura Navale	NCRADA-NSWCCA-15-210	Investigation of the Hydrodynamic Response of the Sea-Fighter Catamaran
Dehlsen Associates, LLC	NCRADA-NSWCCA-14-174	Advanced Hydrokinetic Energy Converter Development

Naval Surface Warfare Center, Carderock Division (Continued)

Non-Federal Partner	CRADA Number	Subject
Furuno USA, Inc.	LP-CRADA-NSWCCA-15-201	Equipment Transfer of Furuno DRS4W Situational Awareness RADAR System from Furuno USA, Inc. to NSWCCA
General Dynamics SATCOM Technologies, Inc.	LP-CRADA-NSWCCA-14-182	Equipment Transfer of M20-20 X-Band SATCOM On-The-Move Antenna from General Dynamics SATCOM Technologies, Inc. to NSWCCA
Herrick Technology Laboratories, Inc.	LP-CRADA-NSWCCA-15-202	Equipment Transfer of HTLx Man Portable Sensors, HTLx Miniature Quad Transceivers, and Wave Relay Gen 4 Radios Situational Awareness and Communications Systems from Herrick Technology Laboratories, Inc. to NSWCCA
The Integrated Communications Systems Group, a Division of Mathtech, Inc.	LP-CRADA-NSWCCA-15-203	Equipment Transfer of C2ICS-ETWLH Communication System from The Integrated Communications Systems Group, a Division of Mathtech, Inc. to NSWCCA
Martone Radio Technology, Inc.	LP-CRADA-NSWCCA-15-211	Equipment Transfer of Maximus-II from Martone Radio Technology, Inc. to NSWCCA
Mutualink, Inc.	LP-CRADA-NSWCCA-15-204	Equipment Transfer of Multimedia Gateway Communication Interoperability and Multimedia Sharing System from Mutualink, Inc. to NSWCCA
Northrop Grumman Systems Corporation, acting through Information Systems Sector, Cyber Division	LP-CRADA-NSWCCA-15-206	Equipment Transfer of TRL9 Secure Communications System from Northrop Grumman Systems Corporation, acting through Information Systems Sector, Cyber Division to NSWCCA
Northrop Grumman Systems Corporation, Communications Division	LP-CRADA-NSWCCA-15-205	Equipment Transfer of AOS CDS Dynamically Reconfigurable, Virtualized Cross Domain Data Transfer System from Northrop Grumman Systems Corporation, Communications Division to NSWCCA
Physical Sciences, Inc.	NCRADA-NSWCCA-14-178	Unmanned Aerial Systems Development
Proxy Technologies, Inc.	LP-CRADA-NSWCCA-15-192	Equipment Transfer of PROTEUS Software System from Proxy Technologies, Inc. to NSWCCA
Raytheon Intelligence, Information and Services	LP-CRADA-NSWCCA-15-207	Equipment Transfer of a Persistent Surveillance System, a Cross-Communication Domain Translator and a Near Real-Time Security Analysis System from Raytheon Intelligence, Information and Services to NSWCCA
Ricardo, Inc.	NCRADA-NSWCCA-15-187	WEC Prize Testing and Evaluation
Sagem Avionics, LLC	LP-CRADA-NSWCCA-15-193	Equipment Transfer of the Sigma40 and the Bluenaute Attitude Heading Reference System from Sagem Avionics, LLC to NSWCCA

Naval Surface Warfare Center, Carderock Division (Continued)

Non-Federal Partner	CRADA Number	Subject
Scientific Research Corporation	LP-CRADA-NSWCCA-15-208	Equipment Transfer of a Tactical SIGINT Suite, a Communications Signal Processing System from Scientific Research Corporation to NSWCCA
TrustComm, Inc.	LP-CRADA-NSWCCA-15-195	Equipment Transfer of L-TAC from TrustComm, Inc. to NSWCCA
TrustComm, Inc.	LP-CRADA-NSWCCA-15-209	Equipment Transfer of HGA 8000 and SB200 High Data Rate Communication System from TrustComm, Inc. to NSWCCA
United States Marine, Inc.	NCRADA-NSWCCA-14-184	RIB Hydraulic System Development
Woods Hole Oceanographic Institute	NCRADA-NSWCCA-14-170	Deep Submergence Systems R&D

Naval Surface Warfare Center, Crane Division

Non-Federal Partner	CRADA Number	Subject
The Charles Stark Draper Laboratory, Inc.	NCRADA-NSWCCD-15-152	Anti-Tamper Assessment of Integrated Ultra-High Density Electronic Modules
Digital Solid State Propulsion, Inc.	NCRADA-NSWCCD-14-143	Microcalorimetry Studies with Han-Based Electrical Propellants
Dr. Aaron Striegel	NCRADA-NSWCCD-15-158	Expeditionary Electronic Warfare Systems Division - Proposed Electronic Warfare Applications and Research Transition
Dr. Bertrand Hochwald	NCRADA-NSWCCD-15-155	Expeditionary Electronic Warfare Systems Division - Proposed Electronic Warfare Applications and Research Transition
Dr. J. Nicholas Laneman	NCRADA-NSWCCD-15-157	Expeditionary Electronic Warfare Systems Division - Proposed Electronic Warfare Applications and Research Transition
Dr. Jonathan Chisum	NCRADA-NSWCCD-15-168	Expeditionary Electronic Warfare Systems Division - Proposed Electronic Warfare Applications and Research Transition
GoXtudio, LLC	NCRADA-NSWCCD-15-169	Commercialization of U.S. Patent Number 8,744,783
Microsemi SoC Corporation	NCRADA-NSWCCD-15-148	Anti-Tamper Assessment of the SmartFusion2
Milanowski and Associates, Inc.	NCRADA-NSWCCD-15-153	Rad-Hardened Maturing Evaluation of Modern Electronics
NextGen Sight Solutions, Inc.	NCRADA-NSWCCD-15-162	Commercialization of U.S. Patent Number 7,765,731
NVE Corporation	NCRADA-NSWCCD-15-144	Assessment of Anti-Tamper Sensor Technologies

Naval Surface Warfare Center, Crane Division (Continued)

Non-Federal Partner	CRADA Number	Subject
Purdue University	NCRADA-NSWCCD-13-136	Assessment of Novel Energy Harvesting and Power Systems
Raytheon Company, Raytheon Missile Systems	NCRADA-NSWCCD-15-174	Rad-Hardened Maturing Evaluation of Modern Electronics
Scientific, Inc.	NCRADA-NSWCCD-15-159	Rad-Hardened Maturing Evaluation of Modern Commercial Off-the-Shelf Electronics
University of Cincinnati	NCRADA-NSWCCD-14-146	Application of Arrayed Electrowetting Prisms and Switchable Retro-Reflectors
The University of Notre Dame	NCRADA-NSWCCD-15-147	Expeditionary Electronic Warfare Systems Division - Proposed Electronic Warfare Applications and Research Transition
Vann Ventures, LLC	NCRADA-NSWCCD-15-161	Commercialization of U.S. Patent Number 6,902,316
Xtreme Alternative Defense Systems, Ltd.	NCRADA-NSWCCD-15-145	Commercialization of U.S. Patent Number 8,367,991, U.S. Patent Numbers 8,420,977, 8,436,276, 8,493,261, 8,212,709, 8,305,252, 8,445,813 and U.S. Patent Application Number 13/734,397

Naval Surface Warfare Center, Dahlgren Division

Non-Federal Partner	CRADA Number	Subject
ENVIRO TECH Chemical Services, Inc.	NCRADA-NSWCDD-15-189	Development of Peracetyl Borate Manufacturing
Envisioneering, Inc.	NCRADA-NSWCDD-15-179	Reactive Near-Field Screening Devices
MicroBac Laboratories, Inc.	NCRADA-NSWCDD-15-176	Decontamination Testing Methods and Technology Development
Old Dominion University	NCRADA-NSWCDD-15-184	Operational System Safety and Human System Integration Research for Mission Engineering
Purdue University	NCRADA-NSWCDD-15-178	Agent-Based Modeling and Integration and Interoperability Techniques
Sabtech	LP-CRADA-NSWCDD-15-185	Equipment Transfer of Two (2) General Electric PPC10A Single Board Computers from NSWCDD to Sabtech
Virginia Polytechnic Institute and State University	NCRADA-NSWCDD-15-171	Electromagnetic Weapons Technology
Virginia Polytechnic Institute and State University	NCRADA-NSWCDD-15-172	Cyber Assurance Research

Naval Surface Warfare Center, Indian Head Explosive Ordnance Disposal Technology Division

Non-Federal Partner	CRADA Number	Subject
Auston Star Detonator	NCRADA-NSWC IHEODTD-15-066	Detonating Cord Assembly or Thin Layer Explosive Components Development and Evaluation
Booz Allen Hamilton, Inc.	NCRADA-NSWC IHEODTD-15-072	R&D of Advanced Energetics Technologies to Address DoD Capability Gaps
HI-TEST Laboratories, Inc.	NCRADA-NSWC IHEODTD-15-081	R&D of Melt Cast Explosives Processing Techniques and Explosive Engineering
Island Pyrochemical Industries Corporation	NCRADA-NSWC IHEODTD-14-062	Double Base Propellant Development
Johns Hopkins University	NCRADA-NSWC IHEODTD-15-071	R&D of Biocidal Efficiency of Laminate Particles for Bt Spores
Meggitt (San Juan Capistrano), Inc.	NCRADA-NSWC IHD-13-036	R&D of Low-G Acceleration-Sensitive Switch
Motion Engine, Inc.	NCRADA-NSWC IHEODTD-15-052	R&D of MEMS Wafer Level Packaging
Nammo Energetics Indian Head, Inc.	NCRADA-NSWC IHEODTD-15-078	Research, Development and Manufacture of Propulsion Systems, Tactical Warheads, and Weapon Subsystems for Department of Defense Utilization and U.S. Allies
Office of the Sheriff, Charles County, MD	NCRADA-NSWC IHEODTD-14-047	Research via Limited Observation Experiments for the Improvement of Canine Explosive Training Aids
Office of the Sheriff, Charles County, MD	NCRADA-NSWC IHEODTD-15-068	Participation in Mixed Odor Delivery Device Canine Trials for the Improvement of Canine Explosive Training Aids
Office of the Sheriff, Charles County, MD	NCRADA-NSWC IHEODTD-15-076	Ammonium Nitrate/Aluminum Training Aid Optimization
Porter Scientific, Inc.	NCRADA-NSWC IHD-13-028	R&D of Technologies for Enhanced Safety, Reliability and Energy Conservation
Texas Tech University	NCRADA-NSWC IHEODTD-15-070	Synthesis and Characterization of Advanced Biocidal Energetic Materials
Universal Propulsion Company, Inc.	NCRADA-NSWC IHEODTD-15-058	Development of Improved Design, Production, and Component Availability for CAD/PAD Applications, Including CKU-5C/A Rocket Catapult and F-15 Canopy Remover
University of Connecticut, Health Center	NCRADA-NSWC IHEODTD-15-074	Research Mechanisms of Killing Bacterial Spores by Various Explosive Mixtures
University of Idaho	NCRADA-NSWC IHEODTD-15-073	Agent Defeat Testing at NSWC IHEODTD in Support of University of Idaho

Naval Surface Warfare Center, Indian Head Explosive Ordnance Disposal Technology Division (Continued)

Non-Federal Partner	CRADA Number	Subject
University of Maryland	NCRADA-NSWCIHD-013-035	R&D of Biocidal Efficiency of Laminate Particles for Bt Spores
University of Maryland	NCRADA-NSWC IHEODTD-15-056	R&D of Reactive Energetic Polymer Composites
University of Maryland	NCRADA-NSWC IHEODTD-15-065	Synthetic and Mechanistic Reactivity Studies of Low Oxidation State Aluminum Clusters and Particles for Energetic and Agent Defeat Applications
University of Maryland	NCRADA-NSWC IHEODTD-15-079	Synthetic and Mechanistic Reactivity Studies of Low Oxidation State Aluminum Clusters and Particles for Energetic and Agent Defeat Applications

Naval Surface Warfare Center, Panama City Division

Non-Federal Partner	CRADA Number	Subject
BAE Systems Information and Electronic Systems Integration, Inc.	NCRADA-NSWCPCD-14-047	Tactical Laser Development for Surf Zone Lidar Prototype

Naval Surface Warfare Center, Division Keyport

Non-Federal Partner	CRADA Number	Subject
The Johns Hopkins University Applied Physics Laboratory	NCRADA-NUWCIVKPT-14-018	Range Adversarial Planning Tool Development

Naval Undersea Warfare Center, Division Newport

Non-Federal Partner	CRADA Number	Subject
ALFA International, Inc.	NCRADA-NUWCDIVNPT-15-944	Commercialization of NUWC XP-1 Encapsulant
AUVSI Foundation	NCRADA-NUWCDIVNPT-14-001	STEM Robotics Instructional Aids
Boston Engineering Corporation	NCRADA-NUWCDIVNPT-14-922	Biometric UUV and Bio-Inspired Broadband Sonar Integration and Demonstration
Channel Technologies Group, LLC	NCRADA-NUWCDIVNPT-15-959	Single Crystal Technology
CHEMEON Surface Technology, LLC	LP-CRADA-NUWCDIVNPT-15-1073	Material Transfer of One (1) Gallon of ALTITE Solution and Documents from NUWCDIVNPT to CHEMEON Surface Technology, LLC
CTA Architects Engineers	NCRADA-NUWCDIVNPT-15-943	Energy Efficiency
Dominion Nuclear Connecticut, Inc.	NCRADA-NUWCDIVNPT-15-934	Dominion Nuclear Connecticut, Inc. Waterside Security
General Dynamics/ Electric Boat Corporation	NCRADA-NUWCDIVNPT-15-1080	CONFORM Collaboration
Huntington Ingalls, Inc. - Newport News Shipbuilding	NCRADA-NUWCDIVNPT-14-921	CONFORM Collaboration
I2 Air Fluid Innovation, Inc.	NCRADA-NUWCDIVNPT-14-920	Aeration Methods for Improved Hull Fouling Prevention using Standard Air and Low Dose Elemental Iodine (i2) Infused Bubbles
JPS Composite Materials Corporation	NCRADA-NUWCDIVNPT-15-1066	Mechanics Research, Testing and Analysis of Fabrics and Fabric-Based Composite Materials
Raytheon Company	NCRADA-NUWCDIVNPT-15-1058	Integration of MK 48 Mod 6AT with a Submarine Combat System
Rhode Island Commerce Corporation	NCRADA-NUWCDIVNPT-15-949	STEAM Engine
Shell International Exploration and Production, Inc.	LP-CRADA-NUWCDIVNPT-15-1089	Material Transfer of Acoustic Data from Shell International Exploration and Production, Inc. to NUWCDIVNPT
VivinoStics, LLC	NCRADA-NUWCDIVNPT-15-1075	A Novel Noncontact Vital Sign Acquisition System for Zebrafish

Naval War College

Non-Federal Partner	CRADA Number	Subject
Lockheed Martin	NCRADA-NWC-15-019	OASuW and Distributed Lethality
Raytheon Company	NCRADA-NWC-14-016	Naval Warfare Analysis and Research ADT Modeling

Space and Naval Warfare Systems Command, Systems Center Atlantic

Non-Federal Partner	CRADA Number	Subject
Lockheed Martin Corporation	NCRADA-SSC ATLANTIC-15-001	Intelligence Community Cloud: Full Spectrum Cyber Mission Operations

Space and Naval Warfare Systems Command, Systems Center Pacific

Non-Federal Partner	CRADA Number	Subject
Crystal Group, Inc.	LP-CRADA-SSC PACIFIC-15-225	Equipment Transfer of Wearable Computer Assembly from Crystal Group, Inc. to SSC PACIFIC
DAQRI, Inc.	NCRADA-SSC PACIFIC-14-220	Naval Applications of Augmented Reality
HID Global Corporation	LP-CRADA-SSC PACIFIC-15-222	Material Transfer of Web-Based Application Programming Interface Kit and Associated Documentation from HID Global Corporation to SSC PACIFIC
Hyperion Technology Group, Inc.	NCRADA-SSC PACIFIC-15-224	Infrasonic Sensing in the Maritime Environment
Jove Sciences, Inc.	NCRADA-SSC PACIFIC-15-221	Dark Contact Detection and Tracking
Nanosatisfi, Inc. dba Spire	LP-CRADA-SSC PACIFIC-14-217	Material Transfer of Satellite-Based Optical Imagery Data and Automatic Identification System Vessel Tracking Data from Nanosatisfi, Inc. dba Spire to SSC PACIFIC
National Marine Mammal Foundation	NCRADA-SSC PACIFIC-14-219	Bioacoustic Measurements II
Segway, Inc.	LP-CRADA-SSC PACIFIC-14-218	Equipment Transfer of One (1) Segway Robotic Mobility Platform 220 and One (1) Modular All-Terrain Conversion Kit from SSC PACIFIC to Segway, Inc.
Spectrolab, Inc.	LP-CRADA-SSC PACIFIC-15-223	Equipment Transfer of One (1) Each 3D MEMS LADAR Imaging Sensor Prototype, Laptop Computer, Data Acquisition Software and Mounting Fixture from Spectrolab, Inc. to SSC PACIFIC

United States Naval Academy

Non-Federal Partner	CRADA Number	Subject
The Conservation Fund	NCRADA-USNA-14-NAOE010	Closed-Containment Aquaculture Systems
The Charles Stark Draper Laboratory, Inc.	NCRADA-USNA-15-RODRS008	USNA Summer Internships at The Charles Stark Draper Laboratory, Inc.
Huntington Ingalls, Inc. - Newport News Shipbuilding	NCRADA-USNA-14-NAOE009	Collaboration for Advancements in Research and Education on Submarine Design and Production
Scientific & Biomedical Microsystems, LLC	NCRADA-USNA-12-ECE007	Applications of Microtechnology in Biomedical Instrumentation
Sikorsky Aircraft Corporation	NCRADA-USNA-14-AERO004	Helicopter Engineering R&D with Sikorsky Aircraft Corporation
The University of Maryland	NCRADA-USNA-14-CS001	Science of Security Labet: User-Centered & Designed for Security
The University of Maryland, Baltimore County	NCRADA-USNA-15-CS003	Cyber Innovations and the Science of Cybersecurity
The University of Rhode Island	NCRADA-USNA-14-CHEM005	Oxidant Reservoir Species Measurements During the Front Range Air Pollution and Photochemistry Experiment
The University of Southern California	NCRADA-USNA-14-MATH005	Supply Chain Consolidation and Cooperation in the Agriculture Industry
