

**Missile Defense Agency
Fiscal Year 2016-2020 President's Budget (PB)
FY 2016 through FY 2020 Appropriation Summary
(\$ Thousands)**

Line Number	Program Element	Budget Project	Program	Budget Activity	FY14 Actual	FY15	FY16	FY17	FY18	FY19	FY20	FY16-20
Operations & Maintenance												
011A	0208866C		O&M	NA	377,672	403,512	432,068	446,563	446,873	461,472	460,216	2,247,192
		MD08	Ground Base Midcourse	NA	140,579	146,172	134,477	134,749	137,320	140,006	142,692	689,244
		MD07	THAAD	NA	58,661	75,689	63,660	68,554	73,311	80,393	85,138	371,056
		MD09	AEGIS	NA	12,174	11,662	46,445	55,741	42,802	44,257	41,646	230,891
		MD11	BMDs AN/TPY-2 Radars	NA	166,258	169,989	187,486	187,519	193,440	196,816	190,740	956,001
			Budget Activity NA Total	NA	377,672	403,512	432,068	446,563	446,873	461,472	460,216	2,247,192
			O&M Total	NA	377,672	403,512	432,068	446,563	446,873	461,472	460,216	2,247,192
Procurement												
NA	0208866C		PROCUREMENT	NA	1,785,174	1,758,520	1,334,969	1,343,106	1,544,329	1,719,108	1,841,617	7,783,129
23		MD07	THAAD	NA	571,851	449,824	464,067	362,605	330,002	317,414	313,631	1,787,719
24		MD09	AEGIS BMD	NA	580,814	643,810	558,916	836,676	959,471	1,152,329	1,096,631	4,604,023
25		AP09	Aegis BMD SM-3 IB Advanced Procurement	NA	0	0	147,765	51,716	20,752	78,744	198,238	497,215
26		MD11	BMDs AN/TPY-2 Radars	NA	55,800	88,140	78,634	15,965	2,741	6,840	70,439	174,619
27		MD73	Aegis Ashore Phase III	NA	131,400	225,774	30,587	62,903	70,599	0	0	164,089
28		MD83	Iron Dome	NA	445,309	350,972	55,000	0	0	0	0	55,000
		MD78	Aegis Spares	NA	0	0	0	13,241	10,077	11,583	5,174	40,075
		MD08	Ground Based Midcourse	NA	0	0	0	0	150,687	152,198	157,504	460,389
			Budget Activity NA Total	NA	1,785,174	1,758,520	1,334,969	1,343,106	1,544,329	1,719,108	1,841,617	7,783,129
			Procurement Total	NA	1,785,174	1,758,520	1,334,969	1,343,106	1,544,329	1,719,108	1,841,617	7,783,129
RDT&E												
29	0603175C		Ballistic Missile Defense Technology	3	10,372	0	0	0	0	0	0	0
		MD25	Advanced Technology Development	3	927	0	0	0	0	0	0	0
		MD85	Common Kill Vehicle Technology	3	124	0	0	0	0	0	0	0
		MD40	Program Wide Support	3	9,321	0	0	0	0	0	0	0
30	0603176C		Advanced Concepts and Performance Assessment	3	6,919	8,470	12,139	13,227	12,932	13,249	13,219	64,766
		MD71	Advanced Concepts and Performance Assessments	3	6,919	7,986	11,569	12,568	12,244	12,515	12,467	61,363
		MD40	Program-Wide Support	3	0	484	570	659	688	734	752	3,403
31	0603177C		Discrimination Sensor Technology	3	29,642	36,610	28,200	0	0	0	0	28,200
		MD95	Discrimination Sensor Technology	3	29,523	34,535	23,304	0	0	0	0	23,304
		MT95	Discrimination Sensor Tech-Flight Test Execution	3	0	0	3,749	0	0	0	0	3,749
		MC95	Cyber Operations	3	119	203	0	0	0	0	0	0
		MD40	Program-Wide Support	3	0	1,872	1,147	0	0	0	0	1,147
32	0603178C		Weapons Technology	3	45,268	54,068	45,389	48,912	70,115	54,595	66,797	285,808
		MD69	Directed Energy Research	3	26,315	13,348	30,291	46,477	66,382	51,572	62,996	257,718
		MD72	Interceptor Technology	3	18,953	40,000	12,967	0	0	0	0	12,967
		MD40	Program-Wide Support	3	0	720	2,131	2,435	3,733	3,023	3,801	15,123
33	0603179C		Advanced C4ISR	3	35,421	13,284	9,876	3,723	0	0	0	13,599
		MD01	Command & Control, Battle Management, Communications (C2BMC)	3	22,612	0	0	0	0	0	0	0
		MD73	Advanced C4ISR	3	12,809	12,605	9,412	3,538	0	0	0	12,950
		MD40	Program-Wide Support	3	0	679	464	185	0	0	0	649

Line Number	Program Element	Budget Project	Program	Budget Activity	FY14 Actual	FY15	FY16	FY17	FY18	FY19	FY20	FY16-20
34	0603180C		Advanced Research	3	23,025	16,584	17,364	18,919	20,380	21,069	21,457	99,189
		MD25	Advanced Technology Development	3	23,025	15,787	16,549	17,977	19,295	19,903	20,237	93,961
		MD40	Program-Wide Support	3	0	797	815	942	1,085	1,166	1,220	5,228
37	0603274C		Special Program - MDA Technology	3	35,822	40,433	64,708	85,594	0	0	0	150,302
		MD81	Special Programs - MDA Technology	3	35,822	40,433	64,708	85,594	0	0	0	150,302
42	0603294C		Common Kill Vehicle Technology	3	67,796	25,639	46,753	75,262	71,476	86,814	99,701	380,006
		MD85	Common Kill Vehicle Technology	3	67,796	24,327	44,558	71,515	67,671	82,007	94,027	359,778
		MD40	Program Wide Support	3	0	1,312	2,195	3,747	3,805	4,807	5,674	20,228
			Budget Activity 03 Total	3	254,265	195,088	224,429	245,637	174,903	175,727	201,174	1,021,870
76	0603881C		Ballistic Missile Defense Terminal Defense Segment	4	251,899	163,892	228,021	230,306	257,014	218,533	247,707	1,181,581
		MD07	THAAD	4	210,540	144,822	216,186	217,575	241,979	204,990	232,328	1,113,058
		MC07	Cyber Operations	4	799	647	652	664	676	688	699	3,379
		MT07	THAAD Test	4	14,086	0	0	0	0	0	0	0
		MD06	Patriot Advanced Capability-3 (PAC-3)	4	1,049	1,082	1,154	1,179	1,197	1,213	1,261	6,004
		MD40	Program-Wide Support	4	25,425	17,341	10,029	10,888	13,162	11,642	13,419	59,140
77	0603882C		Ballistic Missile Defense Midcourse Defense Segment	4	1,064,445	873,923	1,284,891	936,425	803,392	903,539	912,890	4,841,137
		MD08	Ground Based Midcourse	4	967,394	812,886	1,225,161	888,868	758,909	851,998	859,964	4,584,900
		MC08	Cyber Operations	4	3,373	2,938	3,217	3,285	3,340	3,406	3,475	16,723
		MT08	Ground Based Midcourse Test	4	59,372	0	0	0	0	0	0	0
		MX08	Ground Based Midcourse Development Support	4	2,868	0	0	0	0	0	0	0
		MD40	Program-Wide Support	4	31,438	58,099	56,513	44,272	41,143	48,135	49,451	239,514
79	0603884C		Ballistic Missile Defense Sensors	4	340,391	270,901	233,588	228,437	142,363	140,740	141,733	886,861
		MD11	BMDs Radars	4	273,056	246,107	222,076	216,365	133,764	131,901	132,694	836,800
		MC11	Cyber Operations	4	1,543	1,212	1,239	1,272	1,308	1,341	1,361	6,521
		MT11	BMDs Radars Test	4	49,925	0	0	0	0	0	0	0
		MD40	Program-Wide Support	4	15,867	23,582	10,273	10,800	7,291	7,498	7,678	43,540
80	0603890C		BMD Enabling Programs	4	368,965	401,971	409,088	423,092	417,831	420,104	433,604	2,103,719
		MD24	System Engineering & Integration	4	123,434	138,633	141,651	137,594	139,599	141,353	142,459	702,656
		MT23	Enabling - Test	4	30,298	18,961	19,576	23,709	27,677	26,632	24,968	122,562
		MD28	Intelligence & Security	4	37,969	37,131	40,263	45,182	45,773	46,108	48,378	225,704
		MD30	BMD Information Management Systems	4	79,572	95,197	95,710	97,050	83,201	82,506	87,440	445,907
		MC30	Cyber Operations	4	12,389	15,452	20,017	23,044	21,164	21,330	24,088	109,643
		MD31	Modeling & Simulation	4	36,388	41,957	43,668	45,989	48,495	48,953	50,782	237,887
		MC31	M&S Cyber Operations	4	0	223	225	227	233	235	244	1,164
		MD32	Quality, Safety, and Mission Assurance	4	25,982	30,637	29,986	30,294	30,291	30,607	31,756	152,934
		MD40	Program-Wide Support	4	22,933	23,780	17,992	20,003	21,398	22,380	23,489	105,262
81	0603891C		Special Programs - MDA	4	266,749	310,261	400,387	349,606	315,151	257,065	266,853	1,589,062
		MD27	Special Programs	4	266,749	310,261	400,387	349,606	315,151	257,065	266,853	1,589,062
82	0603892C		AEGIS BMD	4	885,704	764,224	843,355	762,740	748,354	564,827	579,585	3,498,861
		MD09	Aegis BMD	4	711,040	681,417	732,273	640,153	640,336	457,486	489,092	2,959,340
		MC09	Cyber Operations	4	820	265	870	885	891	891	891	4,428
		MT09	Aegis BMD Test	4	105,000	0	0	0	0	0	0	0
		MX09	Aegis BMD Development Support	4	20,276	28,758	73,118	85,642	68,805	76,361	58,207	362,133
		MD40	Program-Wide Support	4	48,568	53,784	37,094	36,060	38,322	30,089	31,395	172,960
83	0603893C		Space Tracking and Surveillance System	4	41,618	31,331	31,632	17,917	23,937	28,789	30,344	132,619
		MD12	Space Tracking and Surveillance System (STSS)	4	39,529	29,517	30,241	17,070	22,711	27,255	28,700	125,977
		MD40	Program-Wide Support	4	2,089	1,814	1,391	847	1,226	1,534	1,644	6,642
84	0603895C		Ballistic Missile Defense System Space Programs	4	6,412	6,389	23,289	21,433	16,108	11,933	11,952	84,715
		MD33	MD Space Exp Center (MDSEC)	4	6,075	6,020	22,265	20,420	15,283	11,297	11,305	80,570
		MD40	Program-Wide Support	4	337	369	1,024	1,013	825	636	647	4,145

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85	0603896C		Ballistic Missile Defense Command and Control, Battle Management & Communication	4	390,207	428,277	450,085	461,759	423,843	442,926	460,112	2,238,725
		MD01	Command & Control, Battle Management, Communications (C2BMC)	4	244,238	254,714	277,478	286,650	249,844	269,197	279,424	1,362,593
		MC01	Cyber Operations	4	655	547	543	557	565	573	594	2,832
		MT01	C2BMC Test	4	34,776	56,237	59,172	53,115	56,069	53,581	55,537	277,474
		MX01	Command & Control, Battle Management, Communications (C2BMC) Development Support	4	91,287	91,111	93,097	99,606	95,659	95,979	99,632	483,973
		MD40	Program-Wide Support	4	19,251	25,668	19,795	21,831	21,706	23,596	24,925	111,853
86	0603898C		Ballistic Missile Defense Joint Warfighter Support	4	41,051	46,387	49,570	50,533	51,363	52,217	54,247	257,930
		MD03	Joint Warfighter Support	4	38,601	14,569	16,241	16,405	16,580	16,811	17,441	83,478
		MT03	Joint Warfighter Support Test	4	0	29,134	31,149	31,739	32,153	32,624	33,867	161,532
		MD40	Program-Wide Support	4	2,450	2,684	2,180	2,389	2,630	2,782	2,939	12,920
87	0603904C		Missile Defense Integration and Operations Center (MDIOC)	4	50,271	58,503	49,211	58,074	53,655	55,194	57,162	273,296
		MD22	Missile Defense Integration and Operations Center (MDIOC)	4	47,064	54,578	46,575	54,869	50,291	51,632	53,420	256,787
		MC22	Cyber Operations	4	514	537	472	459	616	622	645	2,814
		MD40	Program-Wide Support	4	2,693	3,388	2,164	2,746	2,748	2,940	3,097	13,695
88	0603906C		Regarding Trench	4	14,525	16,199	9,583	9,082	9,390	9,527	9,891	47,473
		MD35	Regarding Trench	4	14,525	16,199	9,583	9,082	9,390	9,527	9,891	47,473
89	0603907C		Sea Based X-Band Radar (SBX)	4	70,336	64,409	72,866	71,267	75,760	72,319	87,058	379,270
		MX46	Sea Based X-Band Radar Development Support	4	68,039	60,681	69,661	67,898	71,880	68,466	82,342	360,247
		MD40	Program-Wide Support	4	2,297	3,728	3,205	3,369	3,880	3,853	4,716	19,023
90	0603913C		Israeli Cooperative Programs	4	283,782	268,842	102,795	104,923	106,913	109,599	111,370	535,600
		MD20	Israeli Upper Tier	4	74,707	74,707	55,050	56,194	57,259	58,695	59,642	286,840
		MD26	Israeli ARROW Program	4	44,363	56,201	11,019	11,245	11,460	11,748	11,937	57,409
		MD34	Short Range Ballistic Missile Defense (SRBMD)	4	149,712	137,934	36,726	37,484	38,194	39,156	39,791	191,351
		MD83	Iron Dome	4	15,000	0	0	0	0	0	0	0
91	0603914C		Ballistic Missile Defense Test	4	342,695	366,302	274,323	298,390	345,333	330,404	350,747	1,599,197
		MT04	BMDs Test Program	4	325,325	344,850	259,808	281,787	325,103	310,206	329,099	1,506,003
		MC04	Cyber Operations	4	1,040	1,670	2,450	2,496	2,545	2,596	2,648	12,735
		MD40	Program Wide Support	4	16,330	19,782	12,065	14,107	17,685	17,602	19,000	80,459
92	0603915C		Ballistic Missile Defense Targets	4	501,170	455,068	513,256	585,727	484,242	442,202	460,945	2,486,372
		MT05	BMDs Targets Program	4	484,743	430,229	490,682	558,035	459,443	418,644	435,975	2,362,779
		MD40	Program Wide Support	4	16,427	24,839	22,574	27,692	24,799	23,558	24,970	123,593
96	0604115C		Technology Maturation Initiatives	4	0	0	96,300	109,674	117,106	208,531	198,363	729,974
		MD98	Directed Energy Prototype Development	4	0	0	19,870	23,919	52,470	82,723	77,671	256,653
		MD99	Discrimination Sensor Prototype Development	4	0	0	43,810	61,153	26,933	114,379	109,767	356,042
		MT99	Technology Maturation Initiatives Test	4	0	0	28,219	19,248	31,447	144	0	79,058
		MC98	Cyber Operations	4	0	0	166	169	259	176	179	949
		MD40	Program Wide Support	4	0	0	4,235	5,185	5,997	11,109	10,746	37,272

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105	0604873C		Long Range Discrimination Radar (LRDR)	4	0	50,500	137,564	154,327	147,562	132,905	77,679	650,037
		MD96	Long Range Discrim Radar (LRDR)	4	0	50,500	131,514	147,031	140,005	125,825	73,471	617,846
		MD40	Program Wide Support	4	0	0	6,050	7,296	7,557	7,080	4,208	32,191
106	0604874C		Improved Homeland Defense (HLD) Interceptors	4	0	99,500	278,944	279,565	71,663	14,004	14,251	658,427
		MD97	Improved HD Interceptors	4	0	99,500	266,676	266,348	67,993	13,258	13,479	627,754
		MD40	Program Wide Support	4	0	0	12,268	13,217	3,670	746	772	30,673
107	0604876C		Ballistic Missile Defense Terminal Defense Segment Test	4	0	111,366	26,225	74,400	69,852	86,191	65,578	322,246
		MT07	THAAD Test	4	0	111,366	25,072	70,883	66,275	81,599	62,026	305,855
		MD40	Program Wide Support	4	0	0	1,153	3,517	3,577	4,592	3,552	16,391
108	0604878C		Aegis BMD Test	4	0	89,628	55,148	89,861	131,351	101,903	80,390	458,653
		MT09	AEGIS BMD Test	4	0	89,628	52,723	85,613	124,624	96,474	76,035	435,469
		MD40	Program Wide Support	4	0	0	2,425	4,248	6,727	5,429	4,355	23,184
109	0604879C		Ballistic Missile Defense Sensor Test	4	0	71,309	86,764	104,271	93,310	102,736	106,377	493,458
		MT11	BMDs Radars Test	4	0	71,309	82,949	99,341	88,531	97,263	100,614	468,698
		MD40	Program Wide Support	4	0	0	3,815	4,930	4,779	5,473	5,763	24,760
110	0604880C		Land Based SM-3 (LBSM3)	4	124,568	123,444	34,970	40,787	30,486	20,193	22,079	148,515
		MD68	AEGIS Ashore	4	113,720	94,999	33,432	38,859	28,925	19,117	20,883	141,216
		MT68	Aegis Ashore Test	4	4,031	21,300	0	0	0	0	0	0
		MD40	Program-Wide Support	4	6,817	7,145	1,538	1,928	1,561	1,076	1,196	7,299
111	0604881C		AEGIS SM-3 Block IIA Co-Development	4	297,169	263,695	172,645	66,828	0	0	0	239,473
		MD09	SM-3 Block IIA Co-Development	4	279,140	240,751	139,866	51,371	0	0	0	191,237
		MT09	SM-3 Block IIA Co-Development Test	4	1,897	7,680	25,186	12,298	0	0	0	37,484
		MD40	Program-Wide Support	4	16,132	15,264	7,593	3,159	0	0	0	10,752
112	0604887C		Ballistic Missile Defense Midcourse Defense Segment Test	4	0	79,877	64,618	73,485	81,385	73,848	94,954	388,290
		MT08	Midcourse Test	4	0	79,877	61,777	70,010	77,217	69,914	89,809	368,727
		MD40	Program Wide Support	4	0	0	2,841	3,475	4,168	3,934	5,145	19,563
115	0305103C		Cyber Security Initiative	4	912	961	963	976	992	1,003	1,038	4,972
		MDCS	Cyber Security Initiative	4	912	961	963	976	992	1,003	1,038	4,972
			Budget Activity 04 Total	4	5,342,869	5,417,159	5,930,081	5,603,885	5,018,356	4,801,232	4,876,909	26,230,463
152	0605502C		Small Business Innovation Research - MDA	6	74,888	0	0	0	0	0	0	0
		MD45	Small Business Innovation Research	6	74,888	0	0	0	0	0	0	0
174	0901598C		Management HQ - MDA	6	34,712	35,598	35,871	35,187	34,509	33,466	33,992	173,025
		MD38	Management Headquarters	6	34,712	35,598	35,871	35,187	34,509	33,466	33,992	173,025
			Budget Activity 06 Total	6	109,600	35,598	35,871	35,187	34,509	33,466	33,992	173,025
			RDT&E Total	6	5,706,734	5,647,845	6,190,381	5,884,709	5,227,768	5,010,425	5,112,075	27,425,358

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MILCON												
			Major MILCON	NA	164,204	0	169,153	116,821	109,112	59,194	0	454,280
			Mechanical-Electrical Bldg MF #1 Ft Greely, AK	NA	80,700	0	0	0	0	0	0	0
			BMDS UEWR, Clear AFS, AK	NA	17,204	0	0	0	0	0	0	0
			AN/TPY-2 Radar Site, PACOM	NA	16,300	0	0	0	0	0	0	0
			Aegis Ashore Missile Def Sys Cmplx, Romania	NA	50,000	0	0	0	0	0	0	0
			Aegis Ashore Missile Def Sys Cmplx, Poland	NA	0	0	169,153	0	0	0	0	169,153
			Long Range Discrimination Radar	NA	0	0		116,821	109,112	59,194	0	285,127
			Minor MILCON	NA	2,000	2,000	0	1,947	1,942	1,913	1,979	7,781
				NA	2,000	2,000	0	1,947	1,942	1,913	1,979	7,781
			MILCON Planning and Design	NA	10,891	58,704	0	8,161	8,323	8,450	8,745	33,679
				NA	10,891	58,704	0	8,161	8,323	8,450	8,745	33,679
			MILCON Total	NA	177,095	60,704	169,153	126,929	119,377	69,557	10,724	495,740
Program Total					8,046,675	7,870,581	8,126,571	7,801,307	7,338,347	7,260,562	7,424,632	37,951,419