

SELECTED MAJOR ACQUISITIONS COST ANALYSIS

(Millions of Dollars)

As of March 31, 1970

WEAPON SYSTEM	CONTRACT DEFINITION		PLANNED COST CURRENT QUANTITY		CURRENT ESTIMATE TOTAL PROGRAM			PERCENT COST GROWTH	
	(1)		(2)		(3)			(4)	
	Program Quantity	Unit Cost	Program Quantity	Unit Cost	Program Quantity	Unit Cost	Total Cost	(3 vs 2)	(3 vs 1)
<b>Army</b>									
CHEYENNE (R&D)	10	13.000	10	13.000	10	20.000	202	54	54
LANCE	1,216	.536	1,216	.536	1,216	.603	735	13	13
SHILLELAGH	99,362	.004	89,211	.004	89,211	.006	496	50	50
SHERIDAN	1,740	.234	1,674	.236	1,674	.298	468	26	27
MBT-70	3,750	.967	2,410	.632	2,410	.888	2,140	41	57
SAM-D (Battery)	124	32.600	49	45.700	49	71.300	3,496	96	119
SAFEGUARD	a/	a/	a/	a/	477 a/	12.300 a/	5,939	a/	a/
<b>Navy</b>									
A-7E	995	2.463	421	2.966	421	3.728	1,570	45	51
F-14	469	13.146	722	11.761	722	11.466	8,279	-3	-13
P-3C	104	12.444	192	11.798	192	13.296	2,553	13	7
S-3A	199	14.528	199	14.528	199	14.732	2,932	1	1
CONDOR	3,348	.132	778	.283	778	.452	351	60	242
PHOENIX	2,384	.284	3,579	.252	3,579	.419	1,501	66	48
POSEIDON	31 b/	156.154	31 b/	148.297	31 b/	179.200	5,555	21	15
SPARROW III (E)	35,077	.021	8,562	.033	8,562	.034	291	3	62
SPARROW III (F)	10,785	.042	12,219	.056	12,219	.082	1,002	46	95
WALLEYE II	18,674	.019	18,174	.019	18,174	.015	272	-21	-21
MK 48 Mod 0/1	5,450	.131	5,887	.126	5,887	.638	3,755	406	387
SSN-688	10 e/	161.400 e/	25	156.960	25	166.716	4,280	6	3
DD-983	30 e/	59.500 e/	50	57.200	50	83.500	4,177	46	40
DLGN-38	4 e/	192.300 e/	23	173.090	23	211.970	4,875	22	10
LHA	9	153.367	9	153.367	9	198.644	1,428	3	3
CVAN 68	1 e/	427.500 e/	1	427.500	1	544.200	544	27	27
CVAN 69	1 e/	519.000 e/	1	519.000	1	519.000	519	-	-
<b>Air Force</b>									
B-1	246	36.400 e/	246	36.400	246	38.100	9,377	5	5
F-15	749	9.800	749	9.800	749	9.800	7,355	-	-
C-5A	120	28.440	81	33.090	81	53.210	4,310 e/	61	87
FB-111A	264	6.750	77	9.990	77	15.670	1,207	63	132
F-111A/D/E/F	1,388	3.970	470	6.220	470	13.580	6,381	118	242
A-7D	517	2.670	387	2.830	387	3.610	1,397	28	35
AWACS	64 e/	41.400 e/	42	49.200	42	49.100	2,065	-1	19
MAVERICK	17,205	.022	11,205	.028	11,205	.030	337	7	36
MINUTEMAN II	666	6.780	668	6.770	668	7.100	4,745	5	5
MINUTEMAN III	760	5.810	739	5.920	739	7.260	5,369	23	25
SRAM	700	.338	1,900	.196	1,900	.574	1,091	193	70
SPARROW III (E)	22,740 e/	.023 e/	13,943	.023	13,943	.026	360	13	13
SPARROW III (F)	375 e/	.031 e/	700	.031	700	.094	66	203	203

TOTAL PROGRAM COSTS

SERVICE	CONTRACT DEFINITION (1)	QUANTITY CHANGE INFLUENCE		COST GROWTH (4)	CURRENT ESTIMATE TOTAL PROGRAM (Col 3 + Col 4) (5)	PERCENT COST GROWTH (Col 5 vs Col 3) (6)
		NET COST CHANGE (2)	ADJUSTED ESTIMATE (Col 1 ± Col 2) (3)			
ARMY	11,897	-2,029	9,868	+3,638	13,506	37%
NAVY	26,568	+9,123	35,691	+8,193	43,884	23%
AIR FORCE	41,140	-5,402	35,738	+8,322	44,060	23%
<b>GRAND TOTAL</b>	<b>79,605</b>	<b>+1,692</b>	<b>81,297</b>	<b>+20,153</b>	<b>101,450</b>	<b>25%</b>

a/ Not available  
 b/ Includes 31 SRBNs and accompanying missiles, tenders, and range ships  
 c/ Reflects planning estimate; contract definition has not been completed  
 d/ Unit costs based on missiles only, not FAR and MSR  
 e/ Contains contingent provision of \$400M

SELECTED MAJOR ACQUISITIONS COST ANALYSIS

The table presented on the opposite page reflects comparative data on selected items of program quantity and cost for all weapons systems currently reported each quarter to the Senate Preparedness Investigating Subcommittee (Stennis Committee). The table for March 31, 1970 reflects limited data for CHEYENNE. For CHEYENNE, program quantity and unit cost are shown based only on development costs. These costs are also included in the Army total dollars. The dollar figures for the Army and for the grand total include the SAFEGUARD and reflect a Modified Phase II program.

The Percent Cost Growth (Col 4) is measured in terms of unit cost or the individual weapons systems, and in terms of total cost of the listed systems for the military service and grand totals. For the individual systems, the percent cost growth shown is derived from a comparison of the Current Estimate Total Program (Col 3) with each of two baselines, Planned Cost at Current Quantity (Col 2), and the cost estimate made at the conclusion of Contract Definition (Col 1).

The following is an array of the Percent Cost Growth shown in Column 4 for the 36 weapons systems which reflect unit cost:

Percent Cost Growth	Number of Weapons Systems			
	Army	Navy	Air Force	Total
	Column 3 vs 2	Column 3 vs 2	Column 3 vs 2	Column 3 vs 2
0 - 25%	1	10	7	18 19
26 - 50%	3	4	1	8 6
51 - 75%	2	2	2	6 6
76 - 100%	-	-	-	- } 5
Over 100%	-	1	3	4 } 5
<b>Total</b>	<u>6</u>	<u>17</u>	<u>13</u>	<u>36</u> 11

**A-7E** - The cost growth of \$489.3M or 45% in total program costs is the result of program stretch-outs, production breaks, changes in fiscal year buys, and the effects of changes in the Air Force A-7D program.

**CONDOR** - The \$131.3M or 60% cost growth in this program is the result of problems experienced with the liquid fuel engine and inflation. Further cost growth impact may be expected from the additional procurement delays imposed by recent Congressional action.

**MK 48** - Total program costs for the Mod 0 and Mod 1 have grown by \$3,012.0M or 405% - \$194.5M in RDT&E and \$2,817.5M in production - due principally to serious technical problems which have stretched the program about two years, underestimating, the add-on of torpedo targets, and economic escalation. In March, Westinghouse was awarded a letter contract for long lead time items on an initial production buy of 52 Mod 0 torpedos. The decision has also been made for an initial fleet buy of 49 Mod 1s in FY 1971.

**SAM-D** - Estimate for the Advanced Development Program exceeds the DCP threshold by \$16M. Current estimate to complete the FYDP program exceeds the authorized funds by \$77M of which \$41M involves the contractor's effort. Unit price of SAM-D battery has increased 119%, from \$32.6M in Contract Definition to a current estimate of \$71.3M.

**Air Force SPARROW F** - Cost growth of \$44M or 203% is attributed to providing for a short range capability and reliability improvements during an extended development phase.

**SRAM** - Cost growth to date is 70% in terms of unit cost, increasing from \$338,000 at Contract Definition for a 700 unit buy to the current estimate of \$574,000 per missile for 1,900 missiles.

Notice: Under the revised DoDI 7000.3, dated June 12, 1970, any change in cost between the baseline estimate and the current estimate of total program costs will be segregated into: (a) that portion of the cost change which is due solely to an adjustment in the quantity to be purchased and (b) that portion of the cost change attributed to all other reasons for cost growth (engineering change, schedule change, economic change, estimating change, etc.). The lower portion of the table on the adjacent page, "Total Program Costs," presents March 31, 1970 SAR data, summarized by military service, in accordance with the above concept. It shows, for example, that the net increase of \$1,609M in total Army Program Costs, since contract definition, consists of a decrease of \$2,029M (Col 2) due to a reduction in program quantity and an increase of \$3,638M (Col 4) attributed to actual cost growth (as explained above).

WEAPON SYSTEMS COSTS SUMMARY FACT SHEET

As of March 31, 1970

(Millions of Dollars)

Weapon System	Development Estimate Total Program			Quantity Change		Adjusted Development Estimate Total Program			Other Cost Growth		Current Estimate Total Program		Current Est. Cost Changes During Current Quarter	
	Quan.	Cost		Quan.	Cost	Quan.	Cost		Total	Pct.*	Total	Unit	Total	Unit
		Total	Unit				Total	Unit						
NAVY														
A-7E	595	\$1,466	\$ 2.463	- 174	\$- 386	421	\$1,080	\$ 2.566	\$+ 490	45%	\$ 1,570	\$ 3.728	\$+ 1.6	\$+ .004
F-14	469	6,166	13.146	+ 253	+2,326	722	8,492	11.761	- 213	- 3	8,279	11.466	+ 5.5	+ .066
P-3C	104	1,294	12.444	+ 88	+ 971	192	2,265	11.798	+ 288	13	2,553	13.296	-	-
S-3A	199	2,891	14.528	-	-	199	2,891	14.528	+ 41	1	2,932	14.732	-	-
CONDOR	3,348	441	.132	-2,570	- 221	778	220	.283	+ 131	60	351	.452	+ .3	- .054
PHOENIX	2,384	677	.284	-1,195	+ 226	3,579	903	.252	+ 598	66	1,501	.419	- .2	-
POSEIDON	31	4,841	156.154	-	- 244	31	4,597	148.297	+ 958	21	5,555	179.200	-	-
SPARROW E	35,077	741	.021	-26,515	- 460	8,562	281	.033	+ 10	4	291	.034	+ 1.8	-
SPARROW F	10,785	454	.042	+1,434	+ 226	12,219	680	.056	+ 322	47	1,002	.082	- 6.8	-
WALLEYE II	18,674	345	.019	- 500	- 8	18,174	337	.019	- 65	- 19	272	.015	-124.7	- .007
MK 48	5,450	714	.131	+ 437	+ 30	5,887	744	.126	+3,011	405	3,755	.638	+ 2.9	+ .006
SSN-688	a/ 10	1,658	161.400	+ 15	+2,376	25	4,034	156.960	+ 246	6	4,280	166.716	-178.0	-7.1
DD-963	a/ 30	1,784	59.500	+ 20	+1,076	50	2,860	57.200	+1,317	46	4,177	83.500	-	-
DLGN-38	a/ 4	769	192.300	+ 19	+3,211	23	3,980	173.050	+ 895	22	4,875	211.970	+ .3	+ .01
LHA	9	1,380	153.367	-	-	9	1,380	153.367	+ 48	3	1,428	158.644	+ .5	+ .056
CVAN 68	a/ 1	428	427.500	-	-	1	428	427.500	+ 116	27	544	544.200	-	-
CVAN 69	a/ 1	519	519.000	-	-	1	519	519.000	-	-	519	519.000	-	-
TOTAL (Stennis Items)		26,568			+9,123		35,691		+8,193	23	43,884		-297.4	

\* Other Cost Growth divided by Adjusted Development Estimate.

a/ Reflects planning estimate; Contract Definition has not been completed.

WEAPON SYSTEMS COSTS SUMMARY FACT SHEET

As of March 31, 1970

(Millions of Dollars)

Weapon System	Development Estimate Total Program			Quantity Change		Adjusted Development Estimate Total Program			Other Cost Growth		Current Estimate Total Program		Current Est. Cost Changes During Current Quarter	
	Quan.	Cost		Quan.	Cost	Quan.	Cost		Total	Pct.*	Total	Unit	Total	Unit
		Total	Unit				Total	Unit						
NAVY - Cont'd														
EA-6B	51	\$ 818	\$ 16.033	- 4	\$- 51	47	\$ 767	\$16.319	+\$ 292	38%	\$ 1,059	\$ 22.523	-	-
SHRIKE	11,186	215	.019	+5,280	+ 104	16,466	319	.019	+ 172	54	491	.030	-	-
STD. ARM.	826	242	.293	- 220	- 42	606	200	.331	+ 24	12	224	.369	-	-
SSN-685	1	101	100.800	-	-	1	101	100.800	+ 51	50	152	151.688	-	-
SSN-637	37	2,516	67.994	-	-	37	2,516	67.994	+ 362	14	2,878	77.778	-	-
SQQ-23	175	171	.974	- 106	- 82	69	89	1.291	+ 142	160	231	3.344	-	-
SQQ-26	55	89	1.610	-	-	55	89	1.610	+ 31	35	120	2.170	-	-
DLG-AAW	20	699	34.941	-	-	20	699	34.941	+ 102	15	801	40.059	-	-
DE-1052	46	1,260	27.385	-	-	46	1,260	27.385	+ 210	17	1,470	31.953	-	-
AMTRAC	1,918	324	.169	- 765	- 134	1,153	190	.164	-	-	190	.164	-	-
DIFAR-7	884		.137	+ 339		1,223		.143				.179	-	-
DIFAR-53	307		.00058	+97,600		404		.00053				.00053	-	-
DSRV	6	144	23.950	- 4	- 42	2	102	51.200	+ 102	100	204	102.150	-	-
VAST-IHAS	20	58	2.875	- 12	- 27	8	31	3.863	+ 23	74	54	6.713	-	-
VAST-CARRIER	207	312	1.507	- 76	- 105	131	207	1.539	+ 236	114	443	3.383	-	-
TOTAL (Non-Stennis)		7,363			- 282		7,081		+1,792	25	8,873			
TOTAL NAVY		33,931			+8,841		42,772		+9,985	23	52,757			

\* Other Cost Growth divided by Adjusted Development Estimate.

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(Millions of Dollars)

Weapon System	Development Estimate Total Program			Quantity Change		Adjusted Development Estimate Total Program			Other Cost Growth		Current Estimate Total Program		Current Est. Cost Changes During Current Quarter	
	Quan.	Cost		Quan.	Cost	Quan.	Cost		Total	Pct.*	Total	Unit	Total	Unit
		Total	Unit				Total	Unit						
<u>AIR FORCE</u>														
F-111A/C/D/E/F	1,388	\$5,505	\$ 4.0	- 918	\$-2,581	470	\$2,924	\$ 6.2	\$+3,457	+118%	\$6,381	\$ 13.6	\$+ 121	\$+ .3
FB-111A	264	1,781	6.7	- 187	-1,043	77	738	9.5	+ 469	+ 63	1,207	15.7	-	-
C-5A	120	3,413	28.4	- 39	- 736	81	2,677	33.0	+1,633	+ 61	4,310	53.2	-	-
A-7D	517	1,379	2.7	- 130	- 283	387	1,096	2.8	+ 301	+ 28	1,397	3.6	-	-
B-1	246	8,959	36.4	-	-	246	8,959	36.4	+ 418	+ 5	9,377	38.1	-	-
F-15	749	7,355	9.8	-	-	749	7,355	9.8	-	-	7,355	9.8	-	-
AWACS	64	2,657	41.4	- 22	- 592	42	2,065	49.2	- 1	- 1	2,064	49.1	-	-
MAVERICK	17,205	383	.022	-6,000	- 73	11,205	310	.028	+ 27	+ 7	337	.030	-	-
MINUTEMAN II	666	4,515	6.8	+ 2	+ 4	668	4,519	6.8	+ 226	+ 5	4,745	7.1	-	-
MINUTEMAN III	760	4,414	5.8	- 21	- 38	739	4,376	5.9	+ 993	+ 23	5,369	7.3	-	-
SRAM	700	237	.338	+1,200	+ 136	1,900	373	.196	+ 718	+193	1,091	.574	-	-
AIM 7E	22,740	529	.023	-8,797	- 205	13,943	324	.023	+ 36	+ 13	360	.026	-	-
AIM 7F	375	12	.031	+ 325	+ 10	700	22	.031	+ 44	+203	66	.094	-	-
TOTAL		41,140			-5,402		35,738		+8,322		44,060			

\* Other Cost Growth divided by Adjusted Development Estimate.