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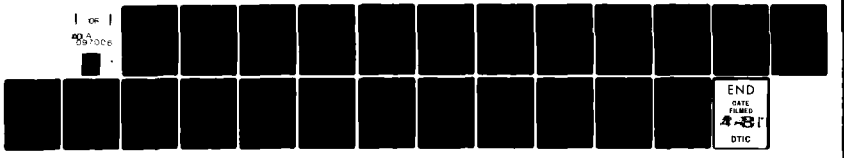
GENERIC INFLATION INDEXES FOR WEAPON SYSTEMS,(U)
JUN 80 A FATKIN
UNCLASSIFIED AFSC-CAIG-RR-NR1 NL



LEVEL II

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(6) GENERIC INFLATION INDEXES FOR WEAPON SYSTEMS

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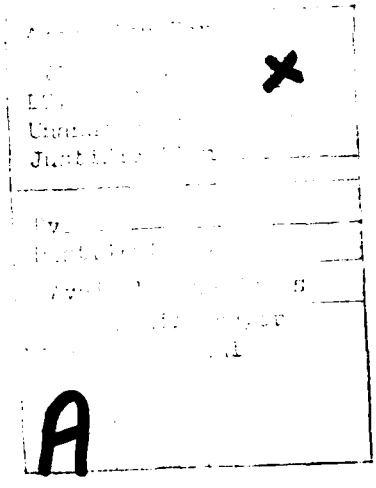
WEAPON SYSTEM	ORGANIZATION
Aircraft	ASD/ACC
Small Missiles	AD/ACC
Munitions	AD/ACC
Spacecraft	SD/ACC
Radar	ESD/ACC
Cruise Missiles	ASD/ACC
Large Missiles	SD/ACC



GENERIC INFLATION INDEXES

The Air Force Systems Command Cost Analysis Improvement Group (AFSC CAIG) undertook an initiative to develop generic inflation indexes for weapon systems. This initiative was to develop indexes for aircraft,large missiles, small missiles, radar, spacecraft and munitions, to include Development, Production, and Operation and Maintenance indexes where possible. Due to the difficulty in collecting data for O&M and Development, only the Production portions of this initiative are presented here. In light of some research done by Mr. Curtis Low from the Army it is possible that it would not be cost effective to spend the resources required to develop generic indexes for development. The research done by Mr. Low supports the hypothesis that there is little statistical difference between R&D and Production inflation rates developed by OSD. This paper demonstrates that there is a significant difference in the inflation rates of different weapon systems based on their different material and labor compositions.

Presented here are the results of a study designed to develop inflation indexes with respect to the production of the various weapon systems described above. Two benefits were initially perceived as an end product for this study. The indexes could be used to normalize prior year actuals into a constant year dollar. To do this indexes would need to be applied historically. The indexes presented here date back to FY 68. This would provide enough actuals to normalize most of the data. Secondly, the indexes could be used as a basis for projecting future costs of a weapon system, inflating the constant dollar estimate. This would include comparison of the generic rates to OSD rates to determine the need for program peculiar

rates, as well as a basis to compare future inflation studies for reasonableness. For this purpose projections from Data Resources Inc. (DRI), have been included through 1990. The method used to develop these projections is identical to the method used to do an aircraft inflation study done previously by this office in 1978 and 1979. The generic aircraft index presented here is simply an update of that study entitled "Inflation Report 110F". To develop an index using this method, it is necessary to identify various commodity factors involved in a particular weapon system, determine their weighting as a percent of total cost of the system, acquire the previous actuals and projections of the various commodity codes identified and calculate the aggregate weapon system indexes. Different subindexes are developed in the process, some of which are presented here along with the aggregate index. In some cases inflation is not projected by DRI for some commodities. In these cases a "proxy" is chosen, similar in nature to the commodity not forecast. The calendar year quarters have been converted to fiscal years, and computer routines have been developed on DRIs Econometric Programming System to facilitate updates to this study should the need arise.

The various commodity codes and their respective weightings are presented in two ways. First they are weighted according to their buildup from the subcategory level and secondly, weightings of each code are presented as a percent of cost of the total weapon system. This allows comparison of various subindexes as well as those commodities that are the most important to the various weapon systems. These weightings and the results of the study follow.

AIRCRAFT

AIRFRAME RAW MATERIALS

% OF COST	CODE	DESCRIPTION
3	WPI101302	FINISHED STEEL
5	WPI10130253*	STAINLESS STEEL
20	WPI10220156	TITANIUM SPONGE
20	WPI10250101*	ALUMINUM SHEETS
8	WPI10250113	ALUMINUM RODS
14	WPI10250117	ALUMINUM EXTRUSIONS
3	WPI066*	COMPOSITES
12	WPI1026	WIRE AND CABLE
15	WPI1081	NUTS AND BOLTS

ENGINE RAW MATERIALS

% OF COST	CODE	DESCRIPTION
15	WPI1022	PRIMARY METAL REFINERY SHAPES
25	WPI10220156	TITANIUM SPONGE
27	WPI101302	FINISHED STEEL
20	WPI10220116	NICKEL(CATHODE SHEETS)
11	WPI05	FUEL AND FUEL RELATED PRODUCTS
2	WPI102501	ALUMINUM SHAPES

AVIONICS RAW MATERIALS

% OF COST			CODE	DESCRIPTION
67-74	75-82	83-90		
85	17	98	WPI1178*	ELECTRONIC COMPONENTS
7	7		WPI117811*	CAPACITORS
6	6		WPI117812*	RESISTORS
2	2	2	W1117824	CONNECTORS
	3		WPI117831*	DIODES
	2		WPI117835*	TRANSISTORS
	21		WPI117841*	DIGITAL BIPOLAR IC
	21		WPI117842*	DIGITAL INTEGRATED CIRCUITS
	21		WPI117845*	LINEAR IC

*PROXIES

LABOR
(AVERAGE HOURLY EARNINGS)

CATEGORY	% OF COST	CODE	DESCRIPTION
AIRFRAME	80	AHE3721	AIRCRAFT PRODUCTION WORKERS
	20	AHE372	AIRCRAFT AND PARTS
ENGINE	100	AHE3724	AIRCRAFT ENGINE AND PARTS
AVIONICS	85	AHE3662*	PRODUCTION WORKERS RADIO AND TV EQUIP.
	15	AHE381	PRODUCT. WORKERS ENGR. SCIENTIFIC INST.

SUBINDEX BUILDUP

	AIRFRAME	ENGINE	AVIONICS
LABOR	34	65	29
RAW MATERIALS	12	35	17
OVERHEAD	54		54

AIRCRAFT SUBINDEX WEIGHTINGS

% OF COST	SUBINDEX
60	AIRFRAME
20	ENGINE
20	AVIONICS

*PROXY

COMMODITY WEIGHTS-TOTAL FOR AIRCRAFT

% OF COST	CODE	DESCRIPTION
2.1	WPI101302	FINISHED STEEL
0.4	WPI10130253	STAINLESS STEEL
3.2	WPI10220156	TITANIUM SPONGE
1.4	WPI10250101	ALUMINUM SHEETS
0.6	WPI10250113	ALUMINUM RODS
1.0	WPI10250117	ALUMINUM EXTRUSIONS
0.2	WPI066	COMPOSITE
0.9	WPI1025	WIRE AND CABLE
1.1	WPI1081	NUTS AND BOLTS
1.0	WPI1022	METAL REFINERY SHAPES
0.8	WPI05	FUEL AND FUEL PRODUCTS
0.1	WPI102501	ALUMINUM SHAPES
0.6	WPI1178	ELECTRONIC COMPONENTS
0.2	WPI117811	CAPACITORS
0.2	WPI117812	RESISTORS
0.1	WPI117824	CONNECTORS
0.1	WPI117831	DIODES
0.1	WPI117835	TRANSISTORS
0.7	WPI117841	DIGITAL BIPOLAR INTEGRATED CIRCUITS
0.7	WPI117842	DIGITAL INTEGRATED CIRCUITS
0.7	WPI117845	LINEAR INTEGRATED CIRCUITS
16.3	AHE3721	AIRCRAFT AND PARTS PROD WORKERS
4.1	AHE372	AIRCRAFT PRODUCTION WORKERS
13.0	AHE3724	ENGINE PRODUCTION WORKERS
4.9	AHE3662	RADIO AND TV EQUIP PROD WORKERS
0.9	AHE381	ENGR. SCIENT. INST. PROD WORKERS
1.4	WPI10220116	NICKLE
43.2		OVERHEAD

AIRCRAFT RESULTS

FY	AIRFRAME		ENGINE		AVIONICS		AIRCRAFT	
	INDEX	RATE	INDEX	RATE	INDEX	RATE	INDEX	RATE
68	.424	-	.414	-	.571	-	.452	-
69	.449	5.7	.435	5.1	.593	3.8	.475	5.2
70	.478	6.6	.464	6.8	.621	4.8	.504	6.2
71	.507	5.9	.490	5.6	.652	5.0	.533	5.7
72	.531	4.8	.510	4.0	.681	4.4	.557	4.5
73	.570	7.2	.545	6.8	.711	4.5	.593	6.5
74	.620	8.9	.593	8.9	.757	6.3	.642	8.3
75	.708	14.1	.691	16.5	.834	10.3	.730	13.6
76	.767	8.4	.751	8.7	.859	3.0	.783	7.2
7T	.804	7.7*	.788	7.9*	.880	4.0*	.816	6.9*
77	.842	7.7*	.826	7.9*	.902	4.0*	.851	6.9*
78	.909	8.0	.895	8.4	.942	4.4	.913	7.3
79	1.000	10.0	1.000	11.8	1.000	6.1	1.000	9.5
80	1.105	10.5	1.159	15.9	1.099	9.9	1.115	11.5
81	1.235	11.8	1.297	11.9	1.216	10.7	1.244	11.6
82	1.383	12.0	1.459	12.5	1.342	10.4	1.390	11.8
83	1.537	11.1	1.623	11.2	1.478	10.1	1.542	10.9
84	1.695	10.3	1.787	10.1	1.623	9.8	1.699	10.2
85	1.863	10.0	1.970	10.2	1.779	9.6	1.868	9.9
86	2.052	10.1	2.175	10.4	1.951	9.7	2.056	10.1
87	2.261	10.2	2.387	9.7	2.138	9.6	2.261	10.0
88	2.482	9.8	2.609	9.3	2.333	9.1	2.477	9.5
89	2.714	9.3	2.856	9.5	2.542	9.0	2.707	9.3
90	2.975	9.6	3.132	9.7	2.768	8.9	2.964	9.5

*ANNUALIZED

SMALL MISSILES

GUIDANCE AND CONTROL

% OF COST	CODE	DESCRIPTION
24.7	AHE3761	MISSILE PRODUCTION WORKERS
32.7	WPI1178	ELECTRONIC COMPONENTS
2.0	WPI102505	TITANIUM MILL SHAPES
5.6	WPI102501	ALUMINUM MILL SHAPES
35.0		OVERHEAD

PROPULSION

10.6	AHE3761	MISSILE PRODUCTION WORKERS
21.4	AHE34	METAL FABRICATION WORKERS
18.0	WPI1013	STEEL MILL PRODUCTS
50.0		OVERHEAD

ORDNANCE

13.0	AHE3761	MISSILE PRODUCTION WORKERS
3.3	WPI1178	ELECTRONIC COMPONENTS
33.7	WPI1013	STEEL MILL PRODUCTS
50.0		OVERHEAD

TARGET DETECTOR

18.9	AHE3761	MISSILE PRODUCTION WORKERS
46.1	WPI1178	ELECTRONIC COMPONENTS
35.0		OVERHEAD

AIRFRAME

32.0	AHE3761	MISSILE PRODUCTION WORKERS
5.0	WPI102501	ALUMINUM MILL SHAPES
13.0	WPI1013	STEEL MILL PRODUCTS
50.0		OVERHEAD

CONTAINER

32.0	AHE3761	MISSILE PRODUCTION WORKERS
18.0	WPI1013	STEEL MILL PRODUCTS
50.0		OVERHEAD

TOOLING AND TEST EQUIPMENT

% OF COST	CODE	DESCRIPTION
19.5	AHE3761	MISSILE PRODUCTION WORKERS
30.0	WPI1178	ELECTRONIC COMPONENTS
15.5	WPI1013	STEEL MILL PRODUCTS
35.0		OVERHEAD

PROJECT MGT/SYSTEM ENGR/OT&E/TRAINING/DATA&SERV/LOGISTICS

50.0	AHE3761	MISSILE PRODUCTION WORKERS
50.0		OVERHEAD

LAUNCHERS

32.0	AHE372	AIRCRAFT PRODUCTION WORKERS
3.6	WPI1178	ELECTRONIC COMPONENTS
8.6	WPI102501	ALUMINUM MILL SHAPES
5.8	WPI1013	STEEL MILL PRODUCTS
50.0		OVERHEAD

GROUND SUPPORT EQUIPMENT

18.8	AHE3761	MISSILE PRODUCTION WORKERS
46.2	WPI1178	ELECTRONIC COMPONENTS
35.0		OVERHEAD

HARDWARE

68	GUIDANCE AND CONTROL
10	PROPULSION
2	ORDNANCE
7	TARGET AND DETECTOR
8	AIR FRAME
1	CONTAINER
4	TOOLING AND TEST EQUIPMENT

OTHER

50	LAUNCHERS
20	GROUND SUPPORT EQUIPMENT
8	TRAINING
17	DATA AND SERVICES
5	LOGISTICS

MISSILE SUBINDEX WEIGHTINGS

70	MISSILE HARDWARE
15	PROJECT MGT/SYS ENGR/OT&E
15	OTHER

COMMODITY WEIGHTS-TOTAL FOR SMALL MISSILE

WEIGHT	CODE	DESCRIPTION
20.3	WPI1178	ELECTRONIC COMPONENTS
0.5	WPI102505	TITANIUM MILL SHAPES
3.0	WPI102501	ALUMINUM MILL SHAPES
3.6	WPI1013	STEEL PRODUCTS
26.5	AHE3721	MISSILE PRODUCTION WORKERS
1.5	AHE34	METAL FABRICATION WORKERS
2.4	AHE372	AIRCRAFT WORKERS
42.2		OVERHEAD

SMALL MISSILE RESULTS

FY	HARDWARE		PROJ MGT		OTHER		SMALL MISSILE	
	INDEX	RATE	INDEX	RATE	INDEX	RATE	INDEX	RATE
68	.516	-	.447	-	.464	-	.498	-
69	.534	3.3	.469	5.2	.485	4.7	.516	3.7
70	.557	4.5	.501	6.6	.513	5.6	.542	4.9
71	.578	3.8	.526	5.0	.538	4.9	.564	4.1
72	.595	3.0	.543	3.4	.560	4.1	.583	3.2
73	.620	4.0	.576	5.9	.592	5.6	.608	4.5
74	.661	6.6	.624	8.5	.637	7.7	.651	7.0
75	.741	12.1	.693	11.1	.714	12.2	.730	12.0
76	.784	5.8	.758	9.3	.769	7.6	.777	6.5
7T	.820	7.3*	.803	9.6*	.809	8.3*	.815	7.9*
77	.857	7.3*	.850	9.6*	.850	8.3*	.855	7.9*
78	.920	7.4	.915	7.6	.917	8.0	.919	7.5
79	1.000	8.6	1.000	9.4	1.000	9.1	1.000	8.8
80	1.113	11.3	1.107	10.7	1.106	10.6	1.111	11.1
81	1.234	10.9	1.235	11.6	1.233	11.4	1.234	11.1
82	1.360	10.2	1.370	11.0	1.369	11.1	1.363	10.5
83	1.491	9.7	1.519	10.9	1.515	10.6	1.499	10.0
84	1.633	9.5	1.678	10.5	1.667	10.1	1.645	9.7
85	1.785	9.3	1.858	10.7	1.835	10.1	1.804	9.7
86	1.947	9.0	2.046	10.2	2.016	9.9	1.972	9.3
87	2.122	9.1	2.264	10.7	2.218	10.0	2.158	9.5
88	2.304	8.5	2.482	9.6	2.425	9.4	2.342	8.8
89	2.505	8.7	2.736	10.3	2.652	9.4	2.561	9.1
90	2.717	8.5	3.000	9.6	2.900	9.3	2.786	8.8

*ANNUALIZED

MUNITIONS

SUBMUNITION

% OF COST	CODE	DESCRIPTION
23.4	WPI1178	ELECTRONIC COMPONENTS
7.8	WPI1013	STEEL MILL PRODUCTS
5.1	WPI102501	ALUMINUM MILL SHAPES
2.7	WPI0679	CHEMICAL PRODUCTS
26.0	AHE3761	MISSILE PRODUCTION WORKERS
35.0		OVERHEAD

TOOLING

10.8	WPI1178	ELECTRONIC COMPONENTS
16.2	WPI1013	STEEL MILL PRODUCTS
23.0	AHE3761	MISSILE PRODUCTION WORKERS
50.0		OVERHEAD

DISPENSER

5.3	WPI1178	ELECTRONIC COMPONENTS
1.2	WPI1013	STEEL MILL PRODUCTS
16.5	WPI102501	ALUMINUM MILL SHAPES
21.6	AHE34	METAL FABRICATION WORKERS
5.4	AHE3761	MISSILE PRODUCTION WORKERS
50.0		OVERHEAD

KMU KIT

32.4	WPI1178	ELECTRONIC COMPONENTS
6.6	WPI102501	ALUMINUM MILL SHAPES
26.0	AHE3761	MISSILE PRODUCTION WORKERS
35.0		OVERHEAD

CONTAINER

18.5	WPI1013	STEEL MILL PRODUCTS
31.5	AHE34	METAL FABRICATION WORKERS
50.0		OVERHEAD

SENSOR

39.0	WPI1178	ELECTRONIC COMPONENTS
5.8	WPI1013	STEEL MILL PRODUCTS
20.2	AHE3761	MISSILE PRODUCTION WORKERS
35.0		OVERHEAD

MUNITION SUBINDEX WEIGHTINGS

74.0	SUBMUNITION
1.0	TOOLING
12.0	DISPENSER
9.0	KMU KIT
2.0	CONTAINER
2.0	SENSOR

COMMODITY WEIGHTINGS-TOTAL FOR MUNITIONS

% OF COST	CODE	DESCRIPTION
21.8	WPI1178	ELECTRONIC COMPONENTS
6.3	WPI102501	TITANIUM MILL SHAPES
6.6	WPI1013	STEEL MILL PRODUCTS
22.9	AHE3761	MISSILE PRODUCTION WORKERS
3.2	AHE34	METAL FABRICATION WORKERS
2.0	WPI0679	CHEMICAL PRODUCTS
37.2		OVERHEAD

MUNITION RESULTS

FY	SUBMUNITION		SENSOR		KMU		MUNITION	
	INDEX	RATE	INDEX	RATE	INDEX	RATE	INDEX	RATE
68	.507	-	.554	-	.538	-	.500	-
69	.523	3.2	.568	3.8	.554	4.1	.518	3.5
70	.548	4.7	.590	3.8	.577	4.1	.542	3.5
71	.569	3.8	.610	3.4	.596	3.3	.564	4.0
72	.586	3.0	.627	2.7	.610	2.3	.582	3.2
73	.609	4.0	.649	3.5	.633	3.7	.607	4.2
74	.653	7.2	.686	5.8	.673	6.4	.650	7.2
75	.743	13.7	.763	11.2	.749	11.2	.738	13.5
76	.784	5.6	.798	4.6	.787	5.2	.781	5.8
TT	.820	7.5*	.830	6.5*	.823	7.4*	.818	7.6*
77	.858	7.5*	.863	6.5*	.860	7.4*	.856	7.6*
78	.922	7.5	.924	7.1	.922	7.3	.921	7.6
79	1.000	8.5	1.000	8.2	1.000	8.4	1.000	8.5
80	1.110	11.0	1.114	11.4	1.112	11.2	1.108	10.8
81	1.231	10.9	1.230	10.5	1.231	10.7	1.230	10.9
82	1.358	10.3	1.349	9.6	1.353	9.9	1.358	10.5
83	1.491	9.7	1.471	9.1	1.480	9.4	1.492	9.8
84	1.632	9.5	1.604	9.0	1.618	9.3	1.635	9.6
85	1.786	9.4	1.744	8.7	1.767	9.2	1.790	9.5
86	1.949	9.1	1.891	8.4	1.922	8.8	1.955	9.2
87	2.127	9.1	2.052	8.5	2.093	8.9	2.136	9.2
88	2.308	8.5	2.214	7.9	2.267	8.3	2.320	8.6
89	2.511	8.8	2.396	8.2	2.461	8.6	2.525	8.8
90	2.724	8.5	2.585	7.9	2.665	8.3	2.742	8.6

*ANNUALIZED

SPACECRAFT

RAW MATERIALS

% OF COST	CODE	DESCRIPTION
1.2	WPI101302	FINISHED STEEL
3.0	WPI10130264*	STAINLESS STEEL SHEET
3.7	WPI10220156	TITANIUM SPONGE
27.8	WPI10250101*	ALUMINUM SHEET
14.0	WPI10250113	ALUMINUM ROD
9.3	WPI10250117	ALUMINUM EXTRUSION
22.0	WPI1025	WIRE AND CABLE
19.0	WPI1081	NUTS AND BOLTS

STRUCTURAL PURCHASED PARTS

18.7		RAW MATERIAL
38.0	AHE372	AIRCRAFT WORKERS
43.3		OVERHEAD

ELECTRICAL

21.2	WPI1178	ELECTRICAL COMPONENTS
29.3	AHE367	ELECTRICAL WORKERS
49.5		OVERHEAD

SPACECRAFT SUBINDEX WEIGHTINGS

8.4	RAW MATERIALS
25.3	STRUCTURAL PURCHASED PARTS
66.3	ELECTRICAL MATERIALS

COMMODITY WEIGHTS-TOTAL FOR SPACECRAFT

% OF COST	CODE	DESCRIPTION
0.1	WPI101302	FINISHED STEEL
0.5	WPI10130264	STAINLESS STEEL SHEET
0.5	WPI10220156	TITANIUM SPONGE
3.6	WPI10250101	ALUMINUM SHEET
1.9	WPI10250113	ALUMINUM ROD
1.2	WPI10250117	ALUMINUM EXTRUSION
2.8	WPI1026	WIRE AND CABLE
2.5	WPI1081	RIVETS,NUTS, BOLTS
9.6	AHE372	AIRCRAFT PRODUCTION WORKERS
14.1	WPI1178	ELECTRONIC COMPONENTS
19.4	AHE367	ELECTRICAL COMPONENTS PROD WORKERS
43.8		OVERHEAD

*PROXIES

SPACECRAFT RESULTS

FY	MATERIAL		ENGINEERING		LABOR		SPACECRAFT	
	INDEX	RATE	INDEX	RATE	INDEX	RATE	INDEX	RATE
68	.481	-	.465	-	.486	-	.441	-
69	.501	4.2	.494	6.3	.505	4.0	.465	5.5
70	.528	5.6	.524	5.9	.539	6.7	.495	6.4
71	.555	5.1	.553	5.7	.556	3.3	.522	5.6
72	.575	3.6	.589	6.5	.558	0.3	.549	5.0
73	.603	4.8	.627	6.5	.584	4.7	.584	6.4
74	.648	7.3	.669	6.7	.633	8.4	.628	7.5
75	.736	13.6	.729	809	.693	9.4	.704	12.0
76	.778	5.7	.783	7.4	.759	9.6	.763	8.4
7T	.813	7.3*	.819	7.5*	.807	10.3*	.804	8.8*
77	.850	7.3*	.857	7.5*	.858	10.3*	.848	8.8*
78	.917	7.9	.925	7.9	.914	6.6	.916	8.0
79	1.000	9.0	1.000	8.1	1.000	9.4	1.000	9.2
80	1.112	11.2	1.084	8.4	1.104	10.4	1.106	10.6
81	1.237	11.2	1.187	9.5	1.226	11.0	1.234	11.5
82	1.373	11.0	1.302	9.7	1.350	10.2	1.371	11.1
83	1.514	10.3	1.430	9.8	1.492	10.5	1.519	10.8
84	1.663	9.8	1.569	9.7	1.647	10.4	1.675	10.3
85	1.823	9.7	1.721	9.7	1.828	11.0	1.847	10.3
86	1.998	9.6	1.893	10.0	2.005	9.7	2.036	10.2
87	2.189	9.5	2.087	10.2	2.221	10.8	2.247	10.4
88	2.388	9.1	2.287	9.6	2.427	9.3	2.463	9.6
89	2.601	9.0	2.500	9.3	2.693	11.0	2.703	9.7
90	2.833	8.9	2.731	9.3	2.956	9.8	2.958	9.4

*ANNUALIZED

RADAR

RAW MATERIALS

% OF COST	CODE	DESCRIPTION
10.8	WPI1013	STEEL MILL PRODUCTS
5.8	WPI1025	MILL SHAPES
7.2	WPI1026	WIRE AND CABLE
4.5	WPI1171	WIRING DEVICES
7.8	WPI1174	TRANSFORMER AND POWER REGULATORS
63.9	WPI1178	ELECTRONIC COMPONENTS

LABOR

80.9	JAHEADJEA	ENGINEERING LABOR
19.1	AHE36	ELECRICAL EQUIP WORKERS

RADAR SUBINDEX WEIGHTINGS

17.3	LABOR
63.9	RAW MATERIALS
18.8	OVERHEAD

COMMODITY WEIGHTINGS-TOTAL RADAR

6.9	WPI1013	STEEL MILL PRODUCTS
3.7	WPI1025	MILL SHAPES
4.6	WPI1026	WIRE AND CABLE
2.9	WPI1171	WIRING DEVICES
5.0	WPI1174	TRANSFORMERS AND POWER REGULATORS
40.8	WPI1178	ELECTRONIC COMPONENTS
14.0	JAHEADJEA	PROFESSIONAL,CLERICAL AND TECHNICAL PAY
3.3	AHE36	ELECTRICAL EQU'PMENT WORKERS
18.8		OVERHEAD

RADAR RESULTS

FY	MATERIAL		LABOR		OVERHEAD		RADAR	
	INDEX	RATE	INDEX	RATE	INDEX	RATE	INDEX	RATE
68	.652	-	.464	-	.398	-	.572	-
69	.654	0.3	.493	6.2	.425	6.8	.583	2.0
70	.673	3.0	.522	5.8	.454	6.7	.606	3.0
71	.684	1.5	.552	5.9	.487	7.3	.624	3.0
72	.688	0.6	.588	6.4	.522	7.2	.639	2.4
73	.697	1.4	.625	6.3	.561	7.5	.659	3.1
74	.737	5.7	.666	6.6	.609	8.5	.700	6.3
75	.838	13.8	.727	9.1	.686	12.7	.790	12.9
76	.835	-0.4	.781	7.5	.752	9.5	.810	2.4
7T	.855	3.9*	.813	7.7*	.795	9.4*	.838	5.5*
77	.876	3.9*	.857	7.7*	.841	9.4*	.866	5.5*
78	.926	5.7	.925	8.0	.915	8.9	.924	6.7
79	1.000	8.0	1.000	8.1	1.000	9.3	1.000	8.3
80	1.125	12.5	1.087	8.7	1.110	11.0	1.116	11.6
81	1.229	9.2	1.194	9.8	1.247	12.4	1.227	9.9
82	1.339	8.9	1.313	9.9	1.398	12.1	1.345	9.7
83	1.441	7.6	1.444	10.0	1.559	11.5	1.463	8.8
84	1.551	7.7	1.587	9.9	1.726	10.8	1.590	8.7
85	1.662	7.2	1.743	9.8	1.909	10.6	1.723	8.3
86	1.775	6.7	1.918	10.0	2.115	10.8	1.864	8.2
87	1.887	6.3	2.114	10.2	2.341	10.7	2.012	7.9
88	2.002	6.1	2.317	9.6	2.577	10.1	2.165	7.6
89	2.119	5.8	2.534	9.4	2.828	9.7	2.324	7.4
90	2.244	5.9	2.770	9.3	3.1.1	9.6	2.496	7.4

*ANNUALIZED

CRUISE MISSILE

AIRFRAME RAW MATERIALS

% OF COST	CODE	DESCRIPTION
3	WPI101302	FINISHED STEEL
5	WPI10130253*	STAINLESS STEEL
20	WPI10220156	TITANIUM SPONGE
20	WPI10250101*	ALUMINUM SHEETS
8	WPI10250113	ALUMINUM RODS
14	WPI10250117	ALUMINUM EXTRUSIONS
3	WPI066*	COMPOSITES
12	WPI1026	WIRE AND CABLE
15	WPI1081	NUTS AND BOLTS

PROPULSION RAW MATERIALS

% OF COST	CODE	DESCRIPTION
15	WPI1022	PRIMARY METAL REFINERY SHAPES
25	WPI10220156	TITANIUM SPONGE
27	WPI101302	FINISHED STEEL
20	WPI10220116	NICKEL(CATHODE SHEETS)
11	WPI05	FUEL AND FUEL RELATED PRODUCTS
2	WPI102501	ALUMINUM SHAPES

GUIDANCE AND CONTROL RAW MATERIALS

% OF COST			CODE	DESCRIPTION
67-74	75-82	83-90		
85	17	98	WPI1178*	ELECTRONIC COMPONENTS
7	7		WPI117811*	CAPACITORS
6	6		WPI117812*	RESISTORS
2	2	2	WI117824	CONNECTORS
	3		WPI117831*	DIODES
	2		WPI117835*	TRANSISTORS
	21		WPI117841*	DIGITAL BIPOLAR IC
	21		WPI117842*	DIGITAL INTEGRATED CIRCUITS
	21		WPI117845*	LINEAR IC

*PROXIES

LABOR
(AVERAGE HOURLY EARNINGS)

CATEGORY	% OF COST	CODE	DESCRIPTION
AIRFRAME	80	AHE3721	AIRCRAFT PRODUCTION WORKERS
	20	AHE372	AIRCRAFT AND PARTS
PROPULSION	100	AHE3724	AIRCRAFT ENGINE AND PARTS
G & C	85	AHE3662*	PRODUCTION WORKERS RADIO AND TV EQUIP.
	15	AHE381	PRODUCT. WORKERS ENGR. SCIENTIFIC INST.

SUBINDEX BUILDUP

	AIRFRAME	PROPUL.	G & C
LABOR	41	65	29
RAW MATERIALS	15	35	17
OVERHEAD	44		54

CRUISE MISSILE SUBINDEX WEIGHTINGS

% OF COST	SUBINDEX
59	AIRFRAME
15	PROPULSION
26	GUIDANCE AND CONTROL

*PROXY

COMMODITY WEIGHTS-TOTAL FOR CRUISE MISSILE

% OF COST	CODE	DESCRIPTION
1.7	WPI101302	FINISHED STEEL
0.4	WPI10130253	STAINLESS STEEL
3.1	WPI10220156	TITANIUM SPONGE
1.8	WPI10250101	ALUMINUM SHEETS
0.7	WPI10250113	ALUMINUM RODS
1.2	WPI10250117	ALUMINUM EXTRUSIONS
0.2	WPI066	COMPOSITE
1.1	WPI1025	WIRE AND CABLE
1.3	WPI1081	NUTS AND BOLTS
0.8	WPI1022	METAL REFINERY SHAPES
0.6	WPI05	FUEL AND FUEL PRODUCTS
0.1	WPI102501	ALUMINUM SHAPES
0.8	WPI1178	ELECTRONIC COMPONENTS
0.3	WPI117811	CAPACITORS
0.3	WPI117812	RESISTORS
0.1	WPI117824	CONNECTORS
0.1	WPI117831	DIODES
0.1	WPI117835	TRANSISTORS
0.9	WPI117841	DIGITAL BIPOLAR INTEGRATED CIRCUITS
0.9	WPI117842	DIGITAL INTEGRATED CIRCUITS
0.9	WPI117845	LINEAR INTEGRATED CIRCUITS
19.4	AHE3721	AIRCRAFT AND PARTS PROD WORKERS
4.8	AHE372	AIRCRAFT PRODUCTION WORKERS
9.8	AHE3724	ENGINE PRODUCTION WORKERS
6.4	AHE3662	RADIO AND TV EQUIP PROD WORKERS
1.2	AHE381	ENGR. SCIENT. INST. PROD WORKERS
1.0	WPI10220116	NICKLE
40.0		OVERHEAD

CRUISE MISSILE RESULTS

FY	AIRFRAME		PROPULSION		GUID & CONT		CRUISE MISS	
	INDEX	RATE	INDEX	RATE	INDEX	RATE	INDEX	RATE
68	.426	-	.414	-	.571	-	.462	-
69	.450	5.6	.435	5.1	.593	3.8	.485	5.0
70	.480	6.6	.464	6.8	.621	4.8	.515	6.1
71	.508	5.8	.490	5.6	.652	5.0	.543	5.5
72	.530	4.4	.510	4.0	.681	4.4	.567	4.3
73	.569	7.2	.545	6.8	.711	4.5	.602	6.3
74	.620	9.0	.593	8.9	.757	6.3	.652	8.2
75	.709	14.4	.691	16.5	.834	10.3	.739	13.4
76	.768	8.3	.751	8.7	.859	3.0	.790	6.8
7T	.804	7.6*	.788	7.9*	.880	4.0*	.822	6.5*
77	.842	7.6*	.826	7.9*	.902	4.0*	.855	6.5*
78	.908	7.9	.895	8.4	.942	4.4	.915	7.0
79	1.000	10.1	1.000	11.8	1.000	6.1	1.000	9.3
80	1.105	10.5	1.159	15.9	1.099	9.9	1.111	11.1
81	1.234	11.7	1.297	11.9	1.216	10.7	1.239	11.5
82	1.383	12.1	1.459	12.5	1.342	10.4	1.384	11.7
83	1.537	11.1	1.623	11.2	1.478	10.1	1.535	10.9
84	1.696	10.3	1.787	10.1	1.623	9.8	1.690	10.1
85	1.863	9.9	1.970	10.2	1.779	9.6	1.857	9.9
86	2.050	10.0	2.175	10.4	1.951	9.7	2.043	10.0
87	2.259	10.2	2.387	9.7	2.138	9.6	2.246	10.0
88	2.479	9.8	2.609	9.3	2.333	9.1	2.460	9.5
89	2.710	9.3	2.856	9.5	2.542	9.0	2.688	9.3
90	2.971	9.6	3.132	9.7	2.768	8.9	2.942	9.5

*ANNUALIZED

OVERHEAD

CATEGORY	DRI PROXY	DESCRIPTION
INDIRECT LABOR (PROF. ADMIN.,TECH.,CLERICAL)	JAHEADJEA	(INDEX OF HOURLY EARNINGS PRODUCTION WORKERS-NONFARM)
EMPLOYEE BENEFITS	YOL/EEA	OTHER LABOR INCOME(PENSIONS UNEMPLOYMENT HEALTH INS.) PER NON-AGR. EMPLOYEE
PAYROLL TAXES	TW/EEA	CONTR. FOR SOCIAL INS. PER NON-AGR. EMPLOYEE
COMMUNICATION AND TRAVEL	.6PCSTRANS .4CPIU	DEFLATOR FOR CONSUMPTION OF TRANS. SERVICES
PRODUCTION RELATED		
METAL PRODUCTS	.33WPI10	METAL AND METAL PRODUCTS
INDUSTRIAL COMM.	.33WPIIND	INDUSTRIAL COMMODITIES
INDIRECT LABOR	.33JAHEADJEA	NON-FARM PROD. WORKERS
FACILITIES	MATOCCPIWA	OFFICE COMPLEX CONSTRUCTION
ADMINISTRATIVE		
PAPER & PAPER PRODUCTS	.33WPI09	PULP AND PAPER PRODUCTS
CHEMICAL PRODUCTS	.33WPI06	CHEMICAL PRODUCTS
PROF. & ADMIN.	.33JAHEADJEA	NON-FARM PROD. WORKERS
FUTURE BUSINESS	JAHEADJEA	NON-FARM PRODUCTION WORKERS

OVERHEAD WEIGHTINGS (% OF COST)

CATEGORY	RADAR	AC	CMISS	SMISS	SPACE	MUN
INDIRECT LABOR	40	37	37	36	30	36
BENEFITS	30	20	20	25	24	25
TAXES	4	6	6	5	5	5
COMMUNICATION & TRAVEL	2	3	3	3	3	3
PRODUCTION RELATED	7	10	10	9	11	9
FACILITIES	11	16	16	15	18	15
ADMINISTRATIVE	2	3	3	2	3	2
FUTURE BUSINESS	4	5	5	5	6	5

PROXIES

CODE	PROXY CODE	PROXY DESCRIPTION	INTERVAL FOR PROXY(FY)
WPI10130253	WPI10130247	STAINLESS STEEL PLATES	80:3 TO 90:4
WPI10250101	WPI10250102	HEAT TREATABLE ALUMINUM	80:3 TO 90:4
WPI066	WPI0723	LAMINATED SHEETS	80:3 TO 90:4
WPI117811	WPI1178	ELECTRICAL COMPONENTS	83:2 TO 90:4
WPI117812	WPI1178	ELECTRICAL COMPONENTS	83:2 TO 90:4
WPI117831	WPI1178	ELECTRICAL COMPONENTS	83:2 TO 90:4
WPI117835	WPI1178	ELECTRICAL COMPONENTS	83:2 TO 90:4
WPI117841	WPI1178	ELECTRICAL COMPONENTS	83:2 TO 90:4
WPI117842	WPI1178	ELECTRICAL COMPONENTS	83:2 TO 90:4
WPI117845	WPI1178	ELECTRICAL COMPONENTS	83:2 TO 90:4
AHE3662	AHE36	ELECT EQUIP WORKERS	80:3 TO 90:4

LARGE MISSILE RESULTS

FY	MILCON		MISSILE R&D		MISSILE PROD	
	INDEX	RATE	INDEX	RATE	INDEX	RATE
74	.646	-	.625	-	.626	-
75	.743	15.1	.711	13.8	.718	14.6
76	.789	6.2	.769	8.1	.774	7.8
7T	.822	6.7*	.807	7.9*	.810	7.6*
77	.856	6.7*	.846	7.9*	.848	7.6*
78	.916	7.0	.915	9.3	.915	8.0
79	1.000	9.1	1.000	9.3	1.000	9.3
80	1.128	12.8	1.112	11.2	1.114	11.4
81	1.273	12.9	1.237	11.2	1.242	11.5
82	1.424	11.8	1.370	10.7	1.374	10.6
83	1.577	10.8	1.508	10.1	1.507	9.7
84	1.730	9.7	1.648	9.3	1.644	9.1
85	1.901	9.9	1.803	9.4	1.793	9.1
86	2.095	10.2	1.977	9.6	1.961	9.4
87	2.308	10.2	2.167	9.6	2.144	9.3
88	2.530	9.6	2.361	9.0	2.331	8.7
89	2.766	9.3	2.575	9.0	2.532	8.7
90	3.025	9.3	2.805	9.0	2.750	8.6

FY	R&D		PRODUCTION	
	INDEX	RATE	INDEX	RATE
74	.642	-	.642	-
75	.727	13.2	.739	15.0
76	.780	7.3	.790	6.9
7T	.815	7.3*	.823	6.8*
77	.852	7.3*	.858	6.8*
78	.919	7.9	.922	7.5
79	1.000	8.9	1.000	8.4
80	1.111	11.1	1.120	12.0
81	1.233	11.0	1.251	11.8
82	1.362	10.4	1.382	10.4
83	1.494	9.7	1.513	9.5
84	1.630	9.1	1.645	8.7
85	1.778	9.1	1.789	8.8
86	1.943	9.2	1.948	8.9
87	2.122	9.2	2.118	8.7
88	2.306	8.7	2.292	8.2
89	2.506	8.7	2.480	8.2
90	2.722	8.6	2.682	8.2

*ANNUALIZED

NOTE: THE MX INFLATION STUDY COMPLETED BY DATA RESOURCES INC. WAS UPDATED TO ARRIVE AT THE LARGE MISSILE RESULTS. THE STUDY, DOCUMENTATION DATED SEP 1979, SHOULD BE CONSULTED FOR FURTHER DETAILS REGARDING THIS PORTION OF THE REPORT.

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