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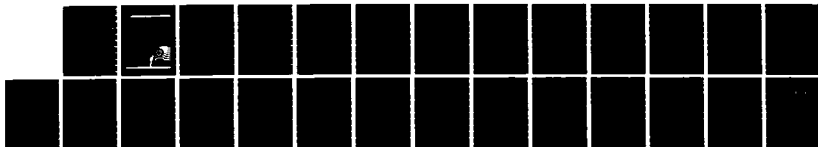
TROOP SUPPORT INFLATION PROGRAM: A COMPUTER PROGRAM
GENERATING HISTORICAL (U) ARMY TROOP SUPPORT COMMAND
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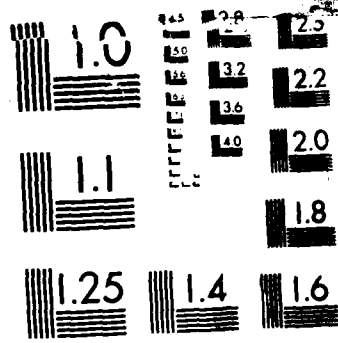
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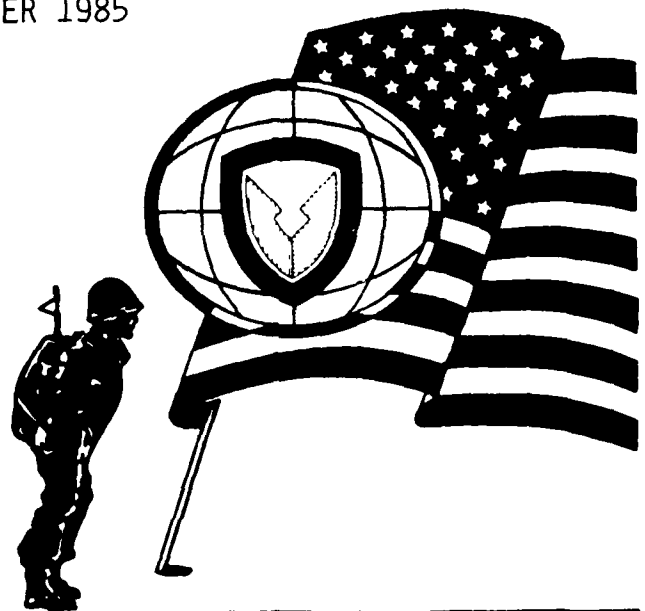
TROOP SUPPORT INFLATION PROGRAM

(A COMPUTER PROGRAM GENERATING HISTORICAL
INFLATION FACTORS FOR TROOP SUPPORT ITEMS)

WARREN H. GILLE, JR.
CYNTHIA R. PHILLIPS

DECEMBER 1985

**U.S. ARMY TROOP SUPPORT
COMMAND (TROSCOM)
COMPTROLLER
COST ANALYSIS DIVISION
4300 GOODFELLOW BLVD.
ST. LOUIS, MISSOURI 63120**



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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The historical inflation indices in this report have been developed for use in the adjustment of historical costs for U.S. Army troop support items. These troop support items are categorized by the Producer Price Index codes. These codes are developed by the Bureau of Labor Statistics which tracks goods and commodities at the wholesale level. The indices are broken out by month for each year and expressed as a fiscal year average and then as a fiscal year factor.			

COST MEMORANDUM

86-1

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DECEMBER 1985

U.S. ARMY TROOP SUPPORT COMMAND
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TROOP SUPPORT INFLATION PROGRAM

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APPROVED BY:

William E. Becher
WILLIAM E. BECHER
CHIEF, PROGRAM/VALIDATION BRANCH
COST ANALYSIS DIVISION
COMPTROLLER

Clarence H. Goetsch
CLARENCE H. GOETSCH
CHIEF, COST ANALYSIS DIVISION
COMPTROLLER



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TROOP SUPPORT INFLATION PROGRAM
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I. APPLICABILITY.

The inflation indices and factors in this report have been developed for use in the adjustment of historical costs for U.S. Army troop support items, and are covered under the Other Procurement, Army (OPA) appropriation. Due to the multiplicity of troop support items, the justification for the selection and use of any index not covered by the schedule listed in Section II of this document is the user's responsibility.

SECTION II

An Overview of Inflation Indices for Troop Support Work

II. AN OVERVIEW OF INFLATION INDICES FOR TROOP SUPPORT WORK.

A. Introduction.

Historical indices are a convenient device for translating the price of an item procured in the past to what the "replacement price" of the item would be today. Several questions, however, should be asked when using an index to update past procurement prices:

1. Is the item for which an updated price is to be calculated obsolete due to changes in technology? Theoretically, prices for WWII vintage equipment can be "updated." However, it should be obvious that this is not a reasonable procedure. To calculate the replacement price for obsolete equipment, a special cost study rather than the application of a numerical index, is required.

2. Is the item under consideration made of the same materials and by the same manufacturing process as when last procured? If the manufacturer has substituted nylon parts for metal parts without loss of performance, or now assembles or packages the item by machine and has significantly lowered his costs, the replacement price for the item could be lower than the index would indicate.

3. Are the conditions of the replacement procurement, if undertaken, identical to past procurement(s)? For instance, are the quantities to be purchased in the old and new procurements similar?

4. Is the index appropriate for use with the item at hand? An index is developed by tracking price changes for a group of items over time. Whether or not a specific index is used for an item depends on whether the item belongs to that group being indexed, and whether it receives adequate representation in the group. For example, aluminum metal items are not accurately tracked using Code 10, Metals and Metal Products, which experienced an inflation rate of 3.7% for FY 84. Rather Code 10-2, Non-Ferrous Metals, is more appropriate because it contains numerous aluminum shapes, forgings, and semi-finished items. Aluminum items have experienced more rapid cost growth than the general group of metal items. Non-ferrous Metals averaged an 6.4% increase in FY 84, as compared to the 3.7% overall average for Metals and Metal Products.

B. Source of Data and Explanation of Codes:

The data used to produce the fiscal year historical inflation indices is supplied by the Kansas City Regional Office, Bureau of Labor Statistics, U.S. Department of Labor. The term PPI code is merely an abbreviation for Producer Price Index code, formerly called the Wholesale Price Index code. The name was changed because raw materials and semi-finished goods are included in the index, not just finished goods at the wholesale level. Producer Price Index codes are two to eight digits in length. The more digits a code has, the more narrowly defined the index is. For example:

PPI Code 11 is Machinery and Equipment

----a subcategory of Code 11 is:

PPI Code 11-7, Electrical Machinery and Equipment

----a further refinement is:

PPI Code 11-73, Motors, Generators, and Motor Generator Sets

----a subcategory of this is:

PPI Code 11-7302, Generators and Generator Sets

---- and a final subcategory of this subcategory is:

PPI Code 11-730224, Generator, A.C. 30 Kilowatt

---- which is a single, well defined item.

Because a single PPI code may be used to track a number of similar items, most codes used for troop support work are two, three, or at most four digit codes. A list of the general two digit codes in the Producer's Price Index is presented below. The fifteen PPI codes cover the majority of the items produced and consumed by the U.S. economy.

PRODUCER PRICE INDEX CODES AT THE AGGREGATE LEVEL.

<u>PPI CODE</u>	<u>TITLE</u>
01	Farm Products
02	Processed Foods and Feeds
03	Textile Products and Apparel
04	Hides, Skins, and related Products
05	Fuel and Related Products and Power
06	Chemicals and Allied Products
07	Rubber and Plastic Products
08	Lumber and Wood Products
09	Pulp, Paper, and Allied Products
10	Metals and Metal Products
11	Machinery and Equipment
12	Furniture and Household Durables
13	Non-metallic Mineral Products
14	Transportation Equipment
15	Miscellaneous Products

A list of Producer Price Index codes and the troop support items with which they have been traditionally associated with at TROSCOM is included in Section III of this document.

C. Producer Price Indices used in Troop Support Work.

From a review of documents which span the past 15 years, it was determined that as many as 103 Producer Price Index codes were considered for and/or used in troop support work. A number of these indices were used for Economic Price Adjustment (EPA) contracts, in which contractual obligations are adjusted according to the movement of specialized price indices written into the procurement contract. Most of the remainder are two, three, and four digit codes, similar to those listed in Section III currently used for troop support items.

In order to make updating past prices a manageable exercise, the number of inflation indices had to be reduced significantly. In the early 1970's the set of 103 was reduced to ten, nine specific and one general. These indices are listed on p. 8, and follow on pp. 9-18.

The indexing technique used is called indexing by similiarity. Most troop support items have some similar counterpart in private industry. Army heating and air conditioning equipment, compressors, and generators, for example, are similar in nature to commercial equipment. Often a manufacturer may make both military and commercial equipment at the same location. Due to the thousands of troop support items purchased over the years, the most similiar index from the basic set of ten Producer Price Indices (PPI's) is used as a proxy.

D. Output Generated by the Computer Program:

Data provided by the Bureau of Labor Statistics is in monthly, calendar year format. The computer program does the following:

(1) Rearranges and prints the monthly index in fiscal year format, including FY 76/77, as prescribed by Higher Headquarters.

(2) Computes and prints fiscal year averages for the indices, with calendar year 1967 as base year.

(3) Inverts the index, computes, and prints fiscal year factors which can be used to move a price paid for an item in the past to its approximate price in the current time period.

For example, if the fiscal year factors for FY 79 to FY 85 are the following:

<u>Year</u>	<u>Factor</u>
FY 85	1.00
FY 84	1.08
FY 83	1.18
FY 82	1.27
FY 81	1.36
FY 80	1.49
FY 79	1.57

....to update the price paid for an item in FY 79 so that it reflects what would be paid for the same item in FY 85, multiply by 1.57. The fiscal year factors are a convenience provided to the user, and allow any past price to be brought up to date with one multiplication.

E. Additional Publications Concerning Inflation

Among the documents available from the Inflation Focal Point, Cost Analysis Division, Comptroller, AMSTR-CCP are the following

- (1) DOD Deflator Guidelines (COA)
- (2) "The AMC Inflation Guidance Package."
- (3) "General Guidance for PRIMIR Submissions."
- (4) Handbook of Army Cost Analysis Terms
- (5) The Historical Research and Development Inflation Indices for U.S. Army Troop Support Items.
- (6) Inflation Indices, An Introduction to Basic Theory and Their Application, with Sample Problems.
- (7) Inflation and Real Growth-An Executive Primer (COA).
- (8) The Standard Army Inflation Methodology. (SAIM) AR 37-63
- (9) "The U.S. Cost Forecasting Service Review."

SECTION III

Computer Generated Inflation Indices

PPI CODES AND ASSOCIATED TROSCOM ITEMS

The following Producer Price Indexes have been associated with the corresponding TROSCOM OPA items for a considerable period of time, and have been used to estimate current prices based on past procurement prices:

<u>Producer Price Index Title and Code</u>	<u>TROOP SUPPORT COMMAND (TROSCOM) OPA Item</u>
Rubber and Plastic Products PPI Code 07	Collapsible Tanks
Heating Equipment PPI Code 10-6	Air Conditioners Heaters
Fabricated Structural Metal Products PPI Code 10-7	AVL Bridge (Not including Tanks chassis) Tanks Other Bridges
Machinery and Equipment PPI Code 11	Power Plant (MUST) Firefighting Equipment Forklift Trucks
Construction Machinery and Equipment PPI Code 11-2	Pumps Compressors
Watercraft/Small Ships Index provided to TROSCOM by US Naval Sea Systems	Watercraft
Special Industry Machinery and Equipment PPI Code 11-6	Theodolites Tape Equipment Surveying Instruments
Electrical Machinery Equipment PPI Code 11-7	Generators Light Sets Utility Elements
Railroad Equipment PPI Code 14-4	Railroad Equipment
Industrial Commodities Average PPI Codes 03 through 15	All other items Not Included in the above

TROOP SUPPORT HISTORICAL INFLATION INDICES
 ALS CODE: 07 RUBBER AND PLASTIC PRODUCTS

FY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YR AVERAGE	FISCAL YR FACTOR
85	246.60	246.10	245.90	246.70	246.40	246.50	246.50	246.40	245.10	246.30	249.60	249.50	246.05	1.000
84	244.40	243.60	243.80	244.60	246.20	246.40	247.30	247.50	247.60	247.50	247.70	248.30	246.75	0.999
83	242.20	241.70	242.20	242.90	242.30	241.80	243.00	243.20	243.10	243.40	243.70	243.20	242.72	1.013
82	237.30	236.00	239.30	237.30	239.30	240.60	241.10	242.10	242.50	242.00	242.60	242.50	240.31	1.023
81	222.60	223.40	223.30	224.80	226.40	228.40	230.80	231.80	233.40	232.10	234.10	235.70	228.91	1.074
80	203.00	204.90	205.90	207.80	210.70	212.70	214.10	215.00	217.30	218.80	220.50	222.00	212.72	1.156
79	178.10	179.40	179.70	180.80	183.20	185.90	188.80	190.80	193.10	195.50	198.80	200.70	187.90	1.309
78	170.20	170.20	170.00	170.20	171.40	172.80	173.80	174.50	174.90	174.90	175.70	176.70	172.55	1.426
77	164.60	164.80	164.70	164.60	164.20	164.60	165.70	166.30	167.50	168.90	169.30	169.50	166.22	1.400

FY	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FISCAL YR AVERAGE	FISCAL YR FACTOR
76	150.10	150.00	150.80	151.50	151.80	151.90	152.40	154.20	155.50	156.70	157.10	157.20	154.80	1.589
77	158.20	161.00	163.60											
75	139.50	143.40	145.60	147.50	148.50	149.40	149.60	150.00	149.70	149.40	148.90	148.50	147.50	1.668
74	112.90	113.10	112.80	114.00	114.60	116.50	117.70	119.80	123.80	129.40	133.70	135.60	120.34	2.044
73	109.20	109.50	109.50	109.50	109.80	109.80	110.80	110.10	110.30	110.60	111.50	112.60	110.20	2.232
72	109.70	109.80	109.70	109.50	109.50	109.40	109.50	109.20	108.90	108.70	108.80	108.90	109.30	2.251
71	108.50	109.20	109.20	109.10	109.00	109.20	108.40	109.10	109.10	109.00	108.70	108.70	105.93	2.258
70	105.70	106.10	105.80	106.60	107.50	107.50	107.80	107.70	107.60	107.50	107.20	107.10	107.00	2.299
69	103.50	104.00	104.00	104.60	104.30	104.40	103.20	103.80	104.10	104.40	104.20	104.30	104.03	2.365
68	98.80	100.80	101.30	101.90	102.40	102.30	102.40	102.50	102.60	102.60	102.70	103.00	101.94	2.413
67	98.10	98.10	97.70	97.60	98.00	98.00	98.70	98.70	99.00	99.00	99.00	99.00	97.39	2.500

TROOP SUPPORT HISTORICAL INFLATION INCIPSES
 BLS CODE: 10-6 HEATING EQUIPMENT

FY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YR AVERAGE	FISCAL YR FACTOR
85	256.10	256.00	256.40	256.30	257.20	257.60	257.80	259.50	259.60	260.50	261.10	261.50	258.31	1.000
86	245.30	245.50	245.70	247.30	248.10	248.50	250.30	252.40	252.70	255.20	255.50	255.70	250.16	1.032
83	238.40	238.80	239.30	240.70	241.10	242.30	242.70	243.00	243.00	244.90	245.10	246.00	241.96	1.067
82	229.00	228.80	229.20	233.40	233.10	235.40	236.00	237.20	238.50	239.90	239.40	239.10	234.90	1.100
81	210.60	212.00	214.00	216.60	217.50	219.50	219.60	222.30	223.50	226.40	227.90	228.50	219.89	1.174
80	192.20	193.10	195.60	199.50	202.60	202.60	204.20	204.00	205.00	206.20	208.00	208.80	201.81	1.279
79	176.90	177.20	179.10	180.10	180.90	183.40	183.60	185.70	185.20	186.00	188.10	191.30	193.14	1.430
78	168.00	168.30	169.30	171.30	170.70	171.30	172.70	173.40	173.90	174.40	176.20	176.00	172.12	1.500
77	160.10	160.90	161.80	162.90	163.10	163.70	163.50	164.00	164.50	165.40	166.00	166.80	163.55	1.579

FY	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FISCAL YR AVERAGE	FISCAL YR FACTOR
76	150.20	150.30	150.30	151.90	152.90	155.20	155.70	155.40	155.20	156.00	156.90	157.10	155.00	1.666
77	158.50	159.30	160.10											
75	137.10	140.00	141.40	145.00	147.00	148.50	148.30	149.00	149.50	149.80	150.20	150.50	146.35	1.764
74	120.90	120.70	120.70	120.80	121.10	121.60	122.90	123.70	124.40	127.50	130.00	132.70	123.71	2.084
73	119.00	119.20	119.20	119.20	119.20	119.20	118.80	119.20	119.50	120.50	120.20	120.70	119.45	2.161
72	115.30	116.80	116.70	116.30	116.50	116.30	115.90	116.20	117.00	117.90	118.10	118.60	116.85	2.210
71	111.40	111.50	111.80	112.40	112.80	113.10	113.60	114.10	114.50	114.70	115.10	115.20	113.35	2.278
70	105.40	105.50	105.70	106.60	107.60	107.60	107.80	107.30	108.50	109.30	109.70	110.00	107.68	2.398
69	103.10	103.10	103.20	103.30	103.50	103.90	103.00	103.60	104.20	104.60	104.70	105.00	103.45	2.497
68	100.00	99.40	100.10	100.50	100.50	101.00	100.80	101.30	101.80	102.30	102.50	102.90	101.15	2.557
67	100.20	99.80	100.20	100.60	100.60	100.80	99.50	99.20	99.40	95.40	95.50	100.10	99.97	2.583

TROOP SUPPORT HISTORICAL INFLATION INDICES
 8LS CODE: 10-7 FAB. STRUCTURAL METAL PROD.

FY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YR AVERAGE	FISCAL YR FACTOR
85	313.80	312.70	313.20	313.50	313.50	314.50	314.60	314.70	314.80	314.40	315.10	315.10	314.17	1.000
84	304.20	305.30	306.00	306.50	307.00	308.30	309.30	310.60	311.20	311.70	312.30	312.10	308.70	1.017
83	305.90	305.30	304.70	303.60	302.60	303.70	302.50	302.10	302.00	302.20	303.00	304.30	303.50	1.035
82	302.60	303.20	303.00	303.40	304.00	304.50	305.20	304.90	305.30	303.90	304.30	306.40	304.22	1.032
81	276.90	278.00	279.30	283.10	285.40	289.40	293.10	294.00	295.00	297.90	299.30	300.00	289.28	1.086
80	256.30	256.70	257.70	258.90	259.70	265.10	269.10	269.90	270.10	272.20	273.00	274.10	265.23	1.104
79	231.90	232.40	233.50	238.40	240.50	243.30	243.80	247.00	249.20	250.50	252.20	253.70	242.75	1.294
78	211.00	212.20	213.30	214.50	218.90	221.40	224.70	225.10	225.80	228.10	230.10	230.60	221.39	1.419
77	197.60	198.00	198.90	199.40	200.30	201.70	203.10	204.10	204.90	207.90	210.10	211.90	203.15	1.846

FY	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FISCAL YR AVERAGE	FISCAL YR FACTOR
76	188.50	189.10	189.20	190.20	190.00	190.90	190.60	190.30	190.80	190.80	190.80	192.40	191.32	1.642
75	165.30	175.10	179.90	182.00	182.50	182.90	185.40	189.40	189.90	188.40	188.80	188.60	183.18	1.715
74	127.10	127.80	128.70	129.60	130.90	131.80	135.40	136.80	140.30	144.00	151.80	158.60	136.91	2.294
73	122.20	122.50	122.70	123.00	123.10	123.30	124.40	124.70	125.00	125.70	126.70	126.90	124.18	2.529
72	118.20	119.60	120.30	120.30	120.30	120.40	121.60	122.00	122.10	122.10	122.00	122.20	120.92	2.898
71	113.00	113.30	113.70	113.80	113.80	114.20	115.20	115.70	116.60	116.80	117.30	117.90	115.10	2.729
70	106.40	106.90	107.20	107.60	107.80	107.90	108.40	109.00	110.20	110.50	111.40	112.30	108.80	2.887
69	102.20	102.80	103.00	103.30	103.30	103.60	103.70	103.80	104.00	104.70	105.10	106.00	103.79	3.026
68	99.90	100.30	100.40	100.50	100.70	100.70	100.90	101.00	101.40	101.50	101.30	102.10	100.59	3.113
67	99.00	99.00	99.10	99.30	99.50	99.60	99.50	99.50	99.50	99.80	99.80	99.70	99.64	3.159

TRUOP SUPPORT HISTORICAL INFLATION INDICES
 OLS CODE: 11 MACHINERY AND EQUIPMENT

FY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YR AVERAGE	FISCAL YR FACTOR
85	294.80	295.30	295.60	297.00	297.60	297.80	298.10	298.40	299.10	299.10	299.40	299.90	297.67	1.000
84	287.60	288.00	288.80	289.70	290.20	291.00	292.20	292.60	293.10	294.00	294.10	294.30	291.30	1.021
83	281.10	281.80	282.40	283.30	284.30	284.70	285.40	286.00	286.20	287.40	287.40	287.90	284.82	1.045
82	269.30	270.40	272.00	274.10	275.40	276.20	277.60	278.20	279.60	279.60	279.90	280.20	275.95	1.078
81	246.80	248.30	249.80	253.30	255.30	257.50	259.60	260.70	262.10	264.80	266.20	268.10	257.70	1.193
80	220.00	221.30	223.40	227.60	230.20	232.50	236.40	237.60	239.20	241.50	242.60	244.70	233.08	1.277
79	200.50	202.70	203.80	205.10	206.50	207.90	209.80	211.40	212.40	214.80	216.00	217.70	209.05	1.423
78	185.60	186.80	187.50	189.30	190.30	191.60	192.70	193.90	195.30	196.50	197.50	198.80	192.15	1.849
77	174.00	174.50	175.40	176.70	177.50	178.20	179.90	180.00	180.70	181.80	182.80	183.80	178.69	1.665

FY	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FISCAL YR AVERAGE	FISCAL YR FACTOR
76	161.70	162.20	163.10	164.10	165.30	165.80	167.00	167.70	168.20	168.90	169.40	170.20	167.25	1.779
75	140.30	144.30	146.80	150.00	152.70	156.00	156.60	157.70	158.80	159.70	159.40	161.00	153.52	1.938
74	122.00	122.30	122.60	123.10	123.80	124.60	126.00	127.00	129.00	130.80	134.10	137.20	126.87	2.345
73	118.30	118.30	118.30	118.40	118.50	118.60	118.90	119.40	120.00	120.00	121.50	121.70	119.34	2.494
72	115.70	116.10	116.00	116.00	115.90	116.20	116.50	117.10	117.30	117.60	117.90	118.10	116.70	2.890
71	111.50	111.60	112.10	112.70	113.20	113.60	114.20	114.60	114.90	115.00	115.30	115.50	113.70	2.618
70	106.40	106.60	107.20	107.80	108.30	109.10	109.70	109.70	110.10	110.40	110.60	111.00	108.90	2.733
69	103.30	103.50	103.80	104.10	104.30	104.50	104.70	105.20	105.50	105.60	105.00	106.10	104.70	2.843
68	99.70	100.00	100.00	100.40	100.80	101.30	101.90	102.20	102.40	102.50	103.00	103.30	101.47	2.933
67	96.40	97.00	97.40	97.90	98.50	99.00	99.40	99.60	99.60	99.70	99.90	99.00	99.73	3.014

TROOP SUPPORT HISTORICAL INFLATION INDICES
 BLS CODE: 11-2 CONSTRUCTION MACH & EQUIP

FY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YR AVERAGE	FISCAL YR FACTOR
85	357.50	357.60	357.80	362.00	362.20	362.50	351.70	361.90	362.00	362.30	362.50	362.00	361.15	1.000
86	353.60	353.90	353.60	354.20	355.90	355.30	357.50	357.80	358.10	356.30	356.50	357.20	356.02	1.014
87	347.60	347.90	348.10	348.30	349.30	349.60	350.30	352.30	352.50	352.80	352.90	353.50	350.47	1.030
88	328.30	329.60	332.00	337.00	337.50	339.20	341.50	343.50	343.70	346.10	346.50	347.50	339.41	1.064
89	293.10	300.10	301.40	305.90	310.00	312.60	317.00	316.40	323.10	323.80	325.00	326.50	313.34	1.152
90	263.90	265.40	268.80	276.00	278.30	279.50	294.20	285.90	287.60	291.50	293.40	295.70	280.85	1.285
91	240.40	242.30	243.80	245.50	247.90	249.70	251.70	253.70	254.00	257.00	258.50	259.90	250.70	1.443
92	217.20	220.80	223.00	223.50	224.80	225.70	226.40	230.30	231.10	232.80	234.60	237.00	227.43	1.507
93	202.70	204.50	205.80	207.20	209.00	208.30	210.20	211.70	212.00	213.90	215.30	214.70	209.52	1.724

FY	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FISCAL YR AVERAGE	FISCAL YR FACTOR
76	184.90	185.40	187.50	188.60	191.20	192.50	193.30	194.40	194.70	195.00	196.40	197.70	193.50	1.866
77	199.80	200.00	200.90											
78	151.40	161.30	163.40	167.00	169.00	170.00	177.30	180.40	182.00	183.80	184.00	184.40	172.83	2.089
79	137.30	131.40	131.40	132.50	132.70	134.10	135.60	137.00	138.60	140.10	145.10	148.30	136.55	2.644
80	125.90	126.10	126.10	126.10	126.30	126.30	126.60	127.40	128.60	130.40	130.30	131.30	127.66	2.828
81	121.50	121.90	121.80	121.80	122.00	123.20	124.30	124.70	125.00	125.70	125.60	125.90	123.62	2.921
82	114.90	115.40	115.90	116.20	119.40	120.40	120.20	120.50	120.80	120.90	121.10	121.20	113.07	3.032
83	109.90	109.90	111.00	112.30	113.00	113.70	114.00	114.10	114.30	114.30	114.70	114.80	113.00	3.196
84	105.40	105.20	106.20	107.10	107.90	108.00	108.80	109.90	109.20	109.30	109.30	109.70	107.41	3.346
85	99.70	99.80	99.30	101.20	102.30	102.90	103.70	104.10	104.50	105.00	105.40	105.70	102.80	3.512
86	94.50	96.30	96.90	97.20	97.30	98.20	98.50	98.80	98.90	99.00	99.40	99.70	98.11	3.681

WATERCRAFT/SMALL SHIP INDEX

				SMALL SHIP	FISCAL YEAR
		LABOR	MAT'L	INDEX	FACTOR
1975	MAR	N/A	N/A	184.1	1.910
	JUN	188.5	182.1	185.3	
	SEP	194.5	184.0	189.3	
	DEC	193.9	186.9	190.4	
1976	MAR	198.1	191.2	194.7	1.806
	JUN	198.7	195.8	197.3	
	SEP	203.1	197.6	199.5	
	DEC	207.4	200.5	204.0	
1977	MAR	209.3	204.1	206.7	1.702
	JUN	211.8	205.8	208.8	
	SEP	215.0	211.4	213.2	
	DEC	222.1	212.7	217.4	
1978	MAR	229.9	220.2	225.1	1.562
	JUN	230.6	224.7	227.7	
	SEP	236.1	229.2	232.7	
	DEC	243.4	234.1	238.8	
1979	MAR	249.5	244.2	246.9	1.425
	JUN	248.8	248.0	248.4	
	SEP	259.7	251.9	255.8	
	DEC	263.1	258.3	261.0	
1980	MAR	274.0	268.0	271.0	1.298
	JUN	277.0	272.7	274.9	
	SEP	286.3	275.9	281.1	
	DEC	289.4	284.0	286.7	
1981	MAR	295.7	293.0	294.4	1.195
	JUN	300.0	295.9	298.0	
	SEP	314.2	303.9	309.1	
	DEC	321.8	306.2	314.0	
1982	MAR	328.0	309.5	318.8	1.103
	JUN	327.0	308.4	317.7	
	SEP	338.1	308.1	323.1	
	DEC	346.5	307.7	327.1	
1983	MAR	350.2	312.5	331.4	1.061
	JUN	348.5	312.8	330.7	
	SEP	354.0	316.3	335.2	
	DEC	364.9	318.4	341.7	
1984	MAR	364.6	322.1	343.3	1.025
	JUN	361.1	323.6	342.4	
	SEP	364.3	324.9	344.6	
	DEC	369.5	325.2	347.4	
1985	MAR	376.4	327.0	351.7	1.000
	JUN	375.2	326.5	350.9	
	SEP	376.0	326.9	351.5	

CY 1967 = 100.0 For Material
 FY 1962 = 100.0 For Labor
 Small Ship Index is 50% Labor/50% Mat'l

Source: U. S. Naval Sea Systems, Cost Analysis Branch.

TRCOP SUPPORT HISTORICAL INFLATION INDICES
 BLS CODE: 11-6 SPECIAL IND. MACH & EQUIP

FY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YR AVERAGE	FISCAL YR FACTOR
85	351.50	351.80	352.40	355.70	357.10	357.60	358.40	358.90	359.70	350.60	361.20	361.70	357.21	1.000
84	340.60	341.00	342.00	342.00	343.20	344.60	346.80	348.20	348.60	351.30	352.80	351.10	346.06	1.032
33	327.80	329.10	329.90	331.80	332.60	333.60	334.50	335.80	336.70	338.00	339.00	339.80	334.05	1.069
82	314.60	315.00	316.40	320.40	320.70	321.30	322.90	323.90	325.00	327.10	326.70	326.30	321.73	1.110
81	286.00	287.70	290.90	295.60	299.20	301.00	303.20	307.20	308.80	311.00	310.30	312.80	301.14	1.186
80	253.80	256.30	256.10	260.60	263.20	265.30	271.90	273.00	274.30	276.70	277.10	283.00	267.90	1.335
79	230.20	232.80	233.90	236.20	237.00	239.10	243.40	245.10	246.10	249.80	251.00	251.20	241.31	1.480
78	209.50	209.90	211.60	213.50	216.40	216.40	218.20	219.00	222.00	223.30	225.10	227.00	217.50	1.642
77	191.80	192.00	193.00	195.40	196.40	197.20	199.10	200.70	201.90	202.80	203.80	204.10	198.18	1.802

FY	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FISCAL YR AVERAGE	FISCAL YR FACTOR
76	175.60	174.40	176.50	178.70	179.60	181.10	183.20	183.70	184.60	186.10	186.70	188.10	183.65	1.947
77	190.00	190.40	190.90											
75	150.30	156.10	158.70	162.00	163.90	165.90	168.50	169.60	172.50	173.30	173.40	174.30	165.70	2.155
74	130.20	131.70	132.60	132.90	133.30	134.90	136.00	138.20	141.90	143.40	147.00	148.90	137.57	2.596
73	123.90	124.00	124.00	124.30	124.50	124.60	124.90	126.50	127.00	128.50	129.00	130.00	125.93	2.836
72	121.60	121.60	121.70	122.00	122.00	122.10	122.60	123.10	123.00	123.40	123.50	123.70	122.62	2.915
71	115.70	115.90	116.40	117.50	117.40	118.30	119.30	119.40	119.60	119.70	120.40	120.90	118.27	3.017
70	110.40	110.50	110.60	111.30	111.70	113.50	114.10	114.20	114.30	114.50	114.80	115.00	112.92	3.163
69	105.70	105.70	106.00	106.30	106.30	106.90	107.40	108.30	108.60	108.80	109.30	109.50	107.45	3.324
68	99.70	100.10	100.10	101.30	101.40	102.00	103.30	103.30	103.40	104.60	105.10	105.20	102.45	3.485
67	96.10	96.70	97.00	97.60	97.90	97.90	98.70	99.10	99.10	97.30	99.70	99.70	96.22	3.650

TROOP SUPPORT HISTORICAL INFLATION INDICES
 BLS CODE: 11-7 ELECTRICAL MACHINERY & EQUIPMENT

FY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YR AVERAGE	FISCAL YR FACTOR
85	250.80	251.50	251.70	253.00	253.70	253.70	253.20	253.60	253.80	253.30	253.50	253.90	252.97	1.000
84	242.60	242.80	243.80	244.70	245.70	246.70	247.70	248.10	249.10	249.40	249.40	249.80	246.65	1.075
83	232.60	233.70	234.20	235.20	237.20	237.50	238.40	238.50	238.40	241.70	241.70	242.90	237.70	1.064
82	225.30	226.00	227.00	228.70	229.50	230.30	231.70	231.30	231.50	231.60	231.80	231.70	229.70	1.101
81	207.00	207.50	208.90	211.90	213.70	216.00	217.40	217.50	219.20	221.10	222.80	224.20	215.60	1.173
80	184.30	184.90	186.60	190.60	194.30	196.50	198.70	199.70	201.60	203.70	203.00	206.00	196.02	1.290
79	167.50	169.60	170.50	171.20	172.80	173.80	175.00	176.50	177.60	179.90	181.20	182.50	174.84	1.446
78	157.30	157.90	158.00	160.00	160.70	161.80	162.70	163.40	164.60	165.40	165.80	166.40	162.00	1.581
77	149.20	149.50	150.00	150.80	151.40	151.90	152.00	152.70	153.00	154.10	154.60	155.70	152.07	1.683

FY	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FISCAL YR AVERAGE	FISCAL YR FACTOR
76	140.00	140.90	141.80	142.30	143.10	143.10	144.00	144.40	144.60	144.90	145.00	145.40	144.00	1.756
77	145.80	146.30	148.50											
75	126.30	128.50	130.40	132.40	135.40	136.50	138.10	138.70	139.10	139.50	140.10	140.40	135.45	1.967
74	112.70	112.70	112.80	113.00	113.30	114.00	115.10	115.70	116.90	118.50	120.60	123.40	115.72	2.186
73	110.70	110.60	110.60	110.50	110.60	110.60	110.90	111.00	111.30	111.70	112.30	112.70	111.12	2.276
72	109.50	109.90	109.70	109.60	109.30	109.30	109.50	110.00	110.10	110.20	110.50	110.60	105.95	2.302
71	106.70	106.90	107.40	107.50	107.90	108.20	108.80	109.30	109.70	109.70	109.40	109.40	108.39	2.333
70	102.80	102.80	103.50	103.70	104.20	104.50	104.90	104.60	105.10	105.40	105.50	106.20	104.43	2.422
69	101.10	101.30	101.60	101.70	101.90	101.70	101.70	102.30	102.40	102.40	102.60	102.80	101.45	2.481
68	100.00	99.80	99.70	99.60	99.70	100.57	100.80	101.00	100.70	101.00	101.10	101.10	100.43	2.518
67	97.20	97.30	97.40	97.70	98.30	99.70	100.00	100.00	100.10	100.10	100.10	100.00	99.04	2.554

TROOP SUPPORT HISTORICAL INFLATION INDICES

ALS CODE: 14-4 RAILROAD EQUIPMENT

FY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YR YR AVERAGE	FISCAL YR FACTOR
85	358.80	359.90	358.90	359.90	361.40	362.70	366.40	362.00	362.60	362.70	364.60	364.60	361.75	1.000
86	348.60	348.60	350.50	351.50	352.00	354.00	354.30	354.40	354.40	356.50	357.70	357.60	353.13	1.024
87	350.80	350.80	350.80	350.80	350.20	350.30	350.00	350.40	350.10	351.30	351.00	350.70	350.62	1.031
88	338.70	341.30	340.10	345.80	345.80	346.30	343.20	342.80	342.80	342.60	347.70	348.00	343.78	1.052
89	323.30	323.60	323.90	322.50	322.50	323.90	325.70	331.20	331.40	338.10	338.70	338.70	331.95	1.089
90	286.30	288.20	289.00	297.50	299.30	302.10	309.40	310.50	312.20	316.40	318.00	320.00	304.11	1.189
91	260.30	261.90	261.80	266.40	268.00	268.90	271.70	271.60	274.70	290.60	290.90	281.60	270.66	1.336
92	238.70	238.70	239.70	243.70	244.60	244.60	250.20	250.40	251.00	253.80	254.20	256.60	247.22	1.463
93	222.80	222.80	223.30	227.90	227.30	230.00	231.10	231.10	232.00	234.20	235.20	235.20	229.45	1.976

FY	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FISCAL YR YR AVERAGE	FISCAL YR FACTOR
76	202.30	201.80	202.40	204.70	204.90	207.80	209.10	211.90	211.90	213.80	213.90	215.60	210.46	1.718
77	216.90	218.90	219.10											
75	166.20	174.50	178.00	181.00	183.90	187.80	196.30	197.10	198.10	198.20	199.50	199.20	188.43	1.919
74	134.80	135.20	136.10	136.20	136.70	138.60	140.20	141.00	144.70	148.50	153.70	163.70	142.45	2.539
73	130.20	130.20	130.20	130.20	130.20	131.10	131.80	132.20	132.70	133.40	134.30	134.80	131.77	2.745
72	121.50	122.80	122.50	122.50	122.50	122.60	123.70	123.90	127.30	128.40	129.60	129.60	124.74	2.899
71	115.10	115.10	115.10	116.00	116.10	116.70	119.00	119.00	119.90	119.90	120.40	120.30	117.77	3.071
70	110.50	110.70	110.70	111.50	111.50	112.00	113.40	113.70	114.50	114.70	114.80	115.10	112.75	3.208
69	103.40	103.60	103.60	104.90	104.90	104.90	104.90	104.90	106.60	106.60	107.40	106.10	105.31	3.434
68	99.50	99.50	99.50	101.10	101.40	101.40	101.90	101.90	101.90	101.90	101.90	101.70	101.15	3.575
67	97.50	97.50	97.50	97.50	97.50	99.10	99.50	99.50	99.50	99.50	99.70	99.70	98.43	3.667

TROOP SUPPORT HISTORICAL INFLATION INDEX

BLS CODE: 03-15 INDUSTRIAL COMMODITIES

FY	JCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	FISCAL YR AVERAGE	FISCAL YR FACTOR
85	323.40	323.80	323.00	322.90	322.20	322.50	323.80	325.30	325.20	324.30	323.60	322.50	323.54	1.000
84	318.50	318.30	318.40	319.10	320.60	321.90	322.60	323.20	323.80	323.90	323.30	322.20	321.31	1.006
83	314.30	315.00	315.20	315.90	313.90	313.50	312.40	313.60	315.30	316.50	317.30	317.10	314.83	1.027
82	309.00	309.30	310.00	311.80	311.60	311.00	309.70	309.60	310.60	312.80	313.20	312.70	310.95	1.040
81	282.00	283.40	286.60	291.50	295.70	299.60	303.50	306.70	305.10	306.20	307.20	307.40	297.74	1.086
80	249.00	250.60	253.10	260.60	265.90	268.60	271.30	271.90	273.50	276.20	278.20	278.80	266.47	1.214
79	214.70	216.00	217.20	220.00	222.50	225.40	229.00	231.60	234.00	237.50	240.60	244.20	227.72	1.420
78	199.10	199.30	200.00	201.60	202.90	204.10	206.10	207.40	208.70	210.10	211.40	212.50	205.26	1.374
77	186.30	187.10	187.40	188.40	189.00	191.70	193.30	194.20	194.70	195.90	196.90	197.80	191.89	1.686

FY	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	FISCAL YR AVERAGE	FISCAL YR FACTOR
76	171.20	172.20	173.10	174.70	175.40	176.10	177.30	178.10	179.10	180.00	180.40	181.30	177.98	1.917
75	157.80	161.60	162.90	164.60	165.80	166.10	167.50	168.40	168.90	169.70	170.30	170.70	166.20	1.946
74	126.10	126.70	127.40	128.50	130.10	132.20	135.30	138.20	142.40	146.60	150.50	153.60	136.46	2.370
73	118.10	118.50	118.70	118.80	119.10	119.40	120.00	121.30	122.80	124.20	125.30	126.00	121.01	2.573
72	114.50	115.10	115.00	115.00	114.90	115.30	115.30	116.50	116.80	117.30	117.60	117.70	115.93	2.789
71	110.10	110.20	110.40	111.20	111.30	111.70	112.20	112.50	112.80	113.30	113.70	113.90	111.94	2.990
70	105.70	106.10	106.50	107.10	107.40	107.80	108.30	108.60	108.80	109.30	109.60	109.70	107.32	2.997
69	102.40	102.50	102.80	103.30	103.40	103.60	104.30	104.90	105.40	105.50	105.60	105.60	104.11	3.107
68	99.70	100.00	100.20	100.50	100.80	101.10	101.50	102.00	102.20	102.40	102.50	102.40	101.29	3.195
67	94.00	94.00	94.00	94.10	94.20	94.30	94.50	94.70	94.70	94.60	94.70	94.70	90.31	3.254

END

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