St. Juliens Creek

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ST. J. INFO MANUEL 65-01

INFORMATION MANUAL

JANUARY 1965

U. S. NAVAL AMMUNITION DEPOT

ST. JULIENS CREEK

PORTSMOUTH, VIRGINIA

F O R E W O R D

This manual has a single purpose: To quickly make available to official visitors the history and description of this depot including a concise, informative story of its major facilities, responsibilities, operations, and accomplishments.

Missions of individual departments are reflected in the functional organization charts.

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HISTORY

The Navy obtained its first ammunition support activity in the Hampton Roads area by transfer of Fort Norfolk from the War Department in September 1849. Additional magazine space was needed later on, and in 1875, Craney Island was acquired by the Navy. These two installations were used as a naval magazine until 1 January 1898.

The Congress, on 2 March 1895, appropriated $75,000 for removal of all ordnance materials from Craney Island to the present site of the Depot. Ninety-six acres of land were purchased here on the Southern Branch of the Elizabeth River, at the mouth of St. Juliens Creek. In 1897, five magazines, two sets of quarters, a small administration building, two small wharves, and two wharf houses were constructed. A narrow gauge railroad track was laid, and small cars were used to transport ammunition between buildings. These cars were propelled by manpower alone until 1908 when it was decided that horses and mules could be used safely for this purpose. The new activity was commissioned early in 1898 and was designated as a U. S. Arsenal. It rendered some service to the fleet in the Spanish-American War. The first shipment of smokeless powder was received in July 1899, and the use of brown powder was then discontinued.

By 1905, the number of buildings on the station had increased to eighteen, and in that year it was redesignated as a Naval Magazine. The personnel complement at this time consisted of three officers and sixty-five civilians; this manning level remained about constant until the beginning of World War I. Prior to 1905, this activity was under the administration of the Inspector of Ordnance at the Norfolk Navy Yard; from 1905 until 30 June 1918, it was a separate department of the Norfolk Navy Yard. In January 1917 its designation was changed from Naval Magazine to Naval Ammunition Depot; and on 1 July 1918 it was made a separate command under the Commandant, Fifth Naval District, with an Inspector of Ordnance in Charge as head of the activity. The first delivery of Explosive "D" was received here in October 1907 and this material was loaded in a few projectiles by hand in 1908.

In 1917, eighteen buildings and a wharf were constructed, and equipment installed for the loading of Mark VI mines. The greater portion of the mines used in laying the North Sea mine field of World War I fame was loaded at NAD, St. Juliens Creek, and shipped in vessels loaded at the wharf. The plant was operated on a twenty-four-hours-a-day basis by sixteen officers and 525 enlisted men. The six hundred civilians employed at the Depot during World War I loaded and assembled ammunition for all types of naval guns. Many additional magazines and other facilities were constructed during World War I.

Between World Wars I and II the Depot carried on its peacetime mission of supplying ammunition to the fleet. The civilian working force dropped to an average of approximately four hundred persons during these years.

Just prior to World War II, and during the war, a large number of additional magazines, filling houses, and other facilities, including the all-concrete Wharf No. 1, were constructed. The peak manning level of the Depot during World War II was approximately 5,200, of which approximately 4,000 were civilians. The Depot loaded, assembled, issued and received vast quantities of all types of naval gun ammunition during World War II. All calibers of Navy Gun Ammunition from 20MM to sixteen inch were loaded and assembled here, except 40MM. Shipments to the fleet alone averaged 12,500 tons a month. In addition to production loading, the Depot served as the principal experimental and test loading facility for new types of ammunition for the Bureau of Ordnance. Also, all manufacturer's samples of projectiles for flight, plate, and ballistics tests were loaded and fuzed at this Depot.

The first woman employed at the Depot was placed on the rolls in December 1941. The peak of female employment at the Depot occurred in September 1943 when a total of 1,207 women were on board. The great majority of these women worked in the filling houses. In April 1943 the title of the head of the activity was changed from Inspector of Ordnance in Charge to Commanding Officer.

Early in World War II an ordnance school was set up and developed by this Depot. The Bureau of Ordnance sent several hundred officers to this school for training prior to assigning them to other naval ammunition depots and advance bases.

The Naval Ammunition Depot, St. Juliens Creek, was one of the first dozen industrial establishments in the United States to win the coveted Navy "E" Pennant and subsequently added six stars to this pennant.

In October 1943, the Chief of the Bureau of Ordnance, Rear Admiral W. H. P. Blandy, USN, sent a dispatch to this Depot, a portion of which read, "The firepower of five-inch projectiles loaded at St. Juliens Creek was a telling factor in the successful invasion of Sicily. U. S. Destroyers using these projectiles spearheaded the shore bombardment which enabled our forces to land with a maximum of precision and minimum of casualties . . . no misfires were experienced with this ammunition."

In the same month, the Commandant, Fifth Naval District, Vice-Admiral H. Fairfax Leary, USN, inspected the Depot and presented the employees with the Commandant's War Bond Honor Pennant for

exceeding ninety percent participation and ten percent of salaries in War Bonds.

In February 1944, several hundred of the top business leaders of Portsmouth and Norfolk gave the Depot a terrific round of applause when it was announced in a meeting that our United War Fund Drive had produced more than $18,000 - eighty percent of a day's pay per person - and a new high for the entire area.

During the Korean War the Depot again loaded and assembled large quantities of gun ammunition, mainly three and five inch. Supplies of larger caliber gun ammunition were on hand from World War II stock, and these were renovated. Shipments and receipts were high.

After the Korean War, the Depot resumed its mission of peacetime service to the fleet, and the work force was greatly reduced.

During the five-year period 1955-60, the Depot increased its overall efficiency to two hundred percent of the 1955 efficiency. This extraordinary feat was accomplished by the use of methods improvements, engineered time standards, production planning and control systems, reports to management, manpower utilization studies, and other modern management techniques.

In 1962, in the Navy Department's first arbitration case under Executive Order 10988, the Navy's decision establishing exclusive jurisdiction for the entire Depot as a single unit was upheld.

In recognition of significant economy for Fiscal Year 1964, St. Juliens Creek was the recipient of a Presidential Citation. This award was based on various management improvement programs and other related management procedures showing validated savings of $571,000 or twenty-two times the established goal for this activity.

MISSION AND MAJOR TASKS OF
U. S. NAVAL AMMUNITION DEPOT, ST. JULIENS CREEK, VIRGINIA - Active

1. MISSION

Receive, renovate, maintain, store and issue ammunition, explosives, expendable ordnance items and/or weapons and technical ordnance material. Perform additional tasks as directed by the Bureau of Naval Weapons.

2. MAJOR TASKS

a. Receive, store, issue, segregate and transship all types of ammunition.

b. Renovate, load, assemble and prepare specific types of ammunition as directed.

c. Maintain basic stocks.

d. Operate a Quality Evaluation Laboratory as directed by the Bureau of Naval Weapons.

e. Provide berthing and security for all craft of the Naval District designated and assigned for ammunition services by the Commandant, Fifth Naval District.

f. Maintain under proper surveillance the ammunition and explosives in store.

g. Dispose of unserviceable and/or dangerous ammunition and explosives from whatever sources received, in accordance with current directives.

SAFETY IS FIRST

The Depot has maintained an outstanding safety record for several years, having received the Secretary of the Navy's Award for Achievement in Safety thirteen times in the past fifteen years, nine of which were in succession.

There has not been a single fatality at the Depot since 1944.

There has been only one permanent total disabling work injury in the past twenty years, and only one permanent partial disability due to work injury in fourteen years.

There has not been a single disabling injury or any property loss due to fires or explosions involving ammunition or explosives during the past sixteen years.

There has not been a single disabling injury due to motor vehicle accidents in fifteen years.

MAJOR ORGANIZATIONAL CHANGES SINCE 1954

In 1955	Planning and Design Division of Public Works Department was disestablished as such and simultaneously its functions were assigned to newly established organizations designated as Engineering and Development Division of Ordnance Department and Engineering, Planning and Control Maintenance Division of Public Works Department.
In 1955	Supply and Fiscal functions were separated and assigned to Supply and Comptroller Departments respectively, each organization becoming a separate entity.
In 1955	Management Engineering Department (now Industrial Management Department) was established and simultaneously the Management Services Division of Administration Department was disestablished and the functions previously performed therein were allocated to the staff organization.
In 1957	Q. E. Laboratory Division was separated from Inspection Department and simultaneously became a separate entity functioning at departmental level.
In 1958	Marine Guard force of the Security Department was supplanted by a Civilian Guard force.

MAJOR MODERN MANAGEMENT SYSTEMS INSTALLED SINCE 1954

	SYSTEM	DEPARTMENT	DATE INSTALLED
1.	Transportation Equipment Maintenance Cost Accounting System	Public Works	July 1954
2.	IBM Data Processing	Comptroller	March 1956
3.	Production Planning and Control System	Ordnance	December 1956
4.	Central Space Control System	Ordnance	June 1957
5.	Semi-mechanized Ammunition Stock Recording System	Ordnance	September 1957
6.	Standard Operating Procedures and Engineered Time Standards	Ordnance	June 1957
7.	Maintenance Management of Public Works and Public Utilities	Public Works	February 1958

ORDNANCE PRODUCTION (RENOVATION) PLANTS CURRENTLY IN GENERAL USE

One (1) Medium Caliber Projectile Loading and Renovation Plant (Bldg. 190)

One (1) Major Caliber Projectile Loading and Renovation Plant (Bldg. 89)

One (1) Medium Caliber Cartridge Renovation and Assembly Plant (Bldg. 46)

One (1) 20MM and 40MM Breakdown Plant (Bldg. 39)

One (1) Tank Renovation Plant (Bldg. 13)

One (1) Inert Component Renovation Plant (Bldg. 47)

One (1) Fuze and Primer Renovation and Black Powder Filling House (Bldg. 18)

One (1) Medium Caliber Projectile Washout Plant (Bldg. M5 Annex)

One (1) Pyrotechnics Segregation and Renovation Building (272)

One (1) 20MM, 40MM and Small Arms Renovation Building (41)

PHYSICAL DATA OF ACTIVITY AS OF 1 JANUARY 1965

PERSONNEL:

Military	USN	USMC	
Officers (allowance)	12	1	
Enlisted (allowance)	7	1	
Total	19	2	Grand Total - 21

Civilian			
IVb (ceiling)	124		
Non IVb (ceiling)	342		466
Total	466	Grand Total -	487

TRANSPORTATION EQUIPMENT:

Sedans	2
Carryalls	1
Station Wagons	2
Busses	1
Automotive	99
Locomotives	4
Railroads & Special Cars	158
Construction, Fire Fighting & Weight Handling	44
Material Handling & Miscellaneous	349

HOUSING:

Family Housing

MOQ	8	
MEMQ	1	(3-family unit)

Barracks

None

LAND, ROAD AND TRACKS

Land - Government Owned		489.63 Acres
Leased		9.18 Acres
	Total	498.81
Roads - Paved		16.46 Miles
Unpaved		2.28 Miles
	Total	18.74
Railroad Tracks		16.75 Miles

WATER FRONT

Wharf No. 1 & No. 2	1520 L.F.
Controlling Depth	19.6 Ft.

STORAGE SPACE

Magazines

SP/Projectiles	52
High Explosives	3
Black Powder	8
Detonators & Fuses	8
F.S. Smoke (Bulk Storage)	1
Inert	18
Miscellaneous	
Chemical - 5	
Survey - 1	
Bomb Type - 1	7
Total	97

Supply Storage	34,434 Sq. Ft.
Outside Storage	80,000 Sq. Ft.
Gasoline Storage	570 Barrels
Fuel Oil Storage	1,900 Barrels
Water Storage (Potable)	1,000,000 Gallons

PLANT ACCOUNT VALUE

Land	$ 208,883.71
Buildings	$10,339,888.00
Equipment	$ 3,525,442.00
Material Inventory Value	$56,469,185.00

UTILITIES

Heating Plant	Steam for processing and heating - 68,000 pounds/hour capacity.
Telephone	Fully automatic 200-station PAX System. PBX system connects to NNSY System.
Sewage	No disposal system (but a sewage collection system) - sewage pumped to City of Portsmouth for disposal.
Electricity	Purchased from NNSY. Standby emergency generators having 825 KVA capacity are on station.
Water (Potable)	Purchased from City of Portsmouth, Virginia.
Water (Non-potable for fire fighting)	150,000 gallon elevated salt water tank. Water suctioned from Elizabeth River.

BUILDINGS/STRUCTURES

Permanent	227
Semi-Permanent	10
Temporary	6
Total	243

BUILDINGS BY CLASSIFICATION

MEMQ	1	(3-family unit)
MOQ	8	
Lunchrooms (civilians)	3	
Recreation	1	(Bowling Alley 1st floor 203 Bldg.)
Administration	10	
Ammunition Production & Maintenance	25	
Ordnance Laboratories	2	
Training	2	
Security	4	
Storage	15	
Public Works Shops & Transportation, P.W. Dept.	16	
Magazines	97	
Medical	1	
Miscellaneous	58	

ACTIVITY'S FACILITIES PROJECTS PROGRAM AS OF 1 JANUARY 1965

Prior. No.	Ident. No.	Project Title	Meth.	Cost
		Construction Projects		
1	C1-54	Remote control motorized valves on Wharf No. 1 and No. 2.	C	$10,542
2	C2-59	Convert Salt Water Distribution System into non-potable Fresh Water System.	C	16,020
3	C1-56	Install relief valves, test headers, check valve and altitude valve in Salt Water Distribution System.	C	10,660

SHORE FACILITIES PLANNING SYSTEMS PROGRAM

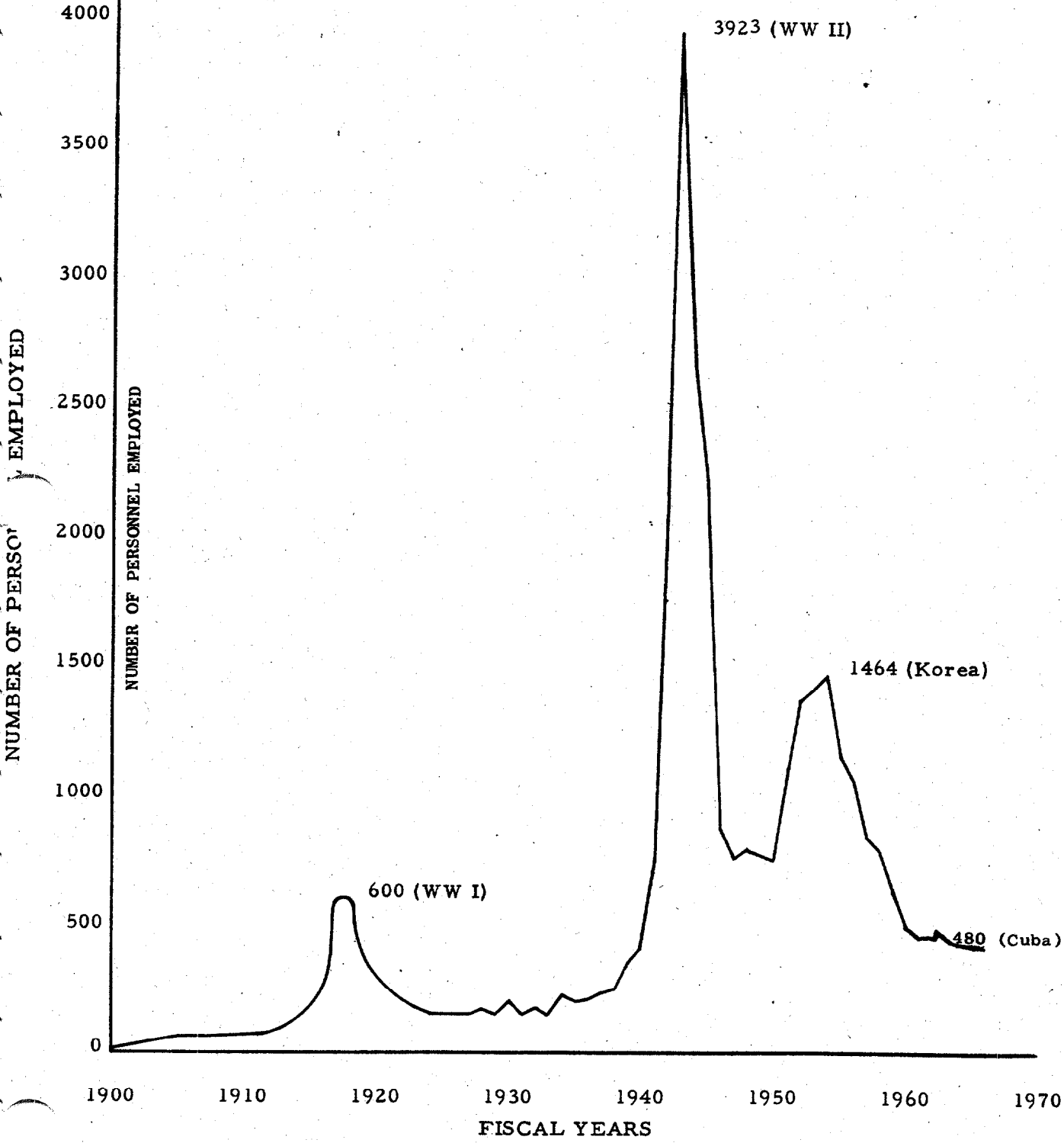
URGENT PROJECTS

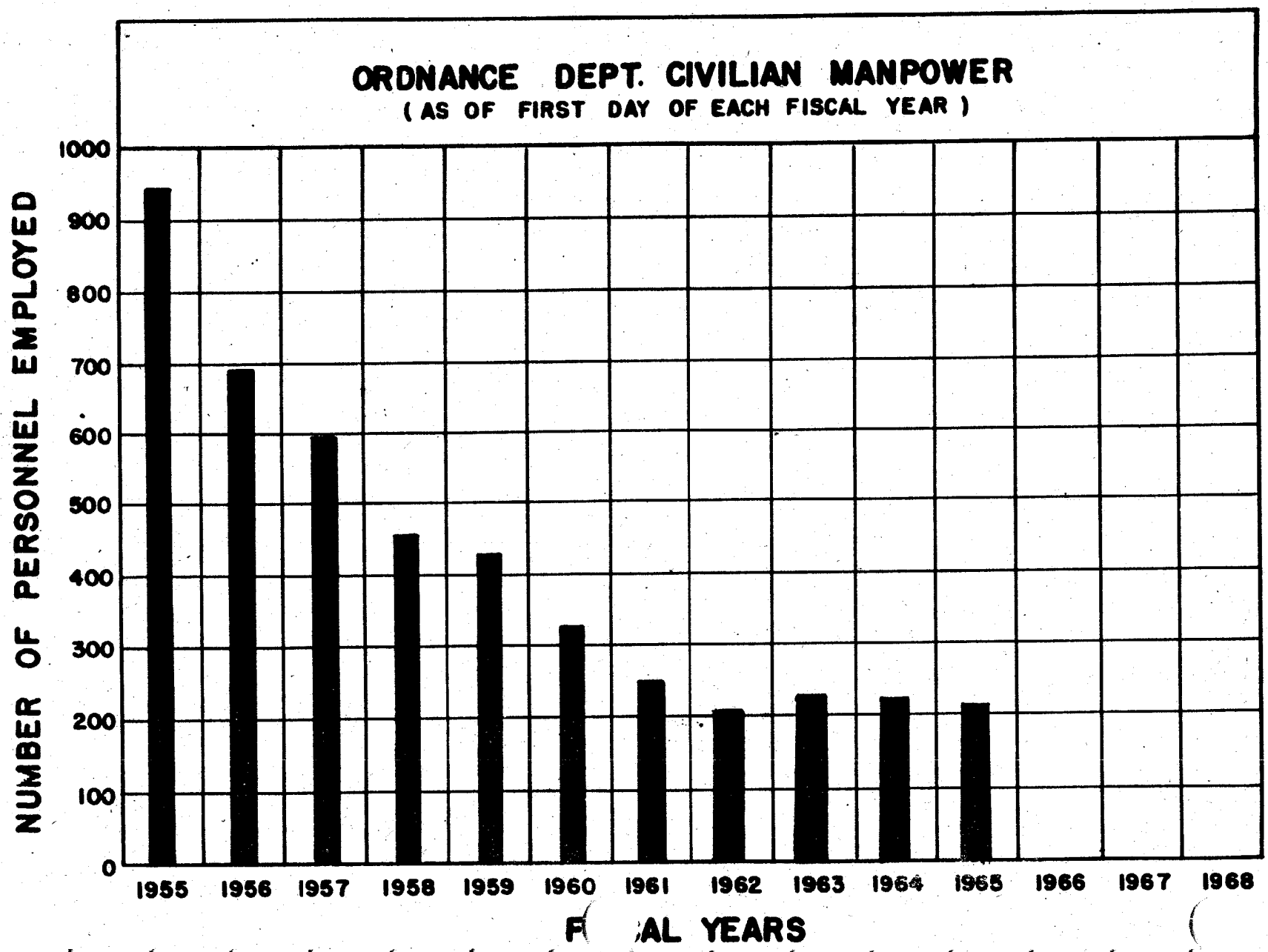
Command Ident. No.	Priority	Title	Est. Cost
5ND-6-338	1	Improvements to Salt Water Distribution System, including replacement of 5,460' of 4" mains with 6" mains, installation of 760' of 8" mains, and replacement of forty-four 4" barrel hydrants with 6" barrel hydrants.	$87,000

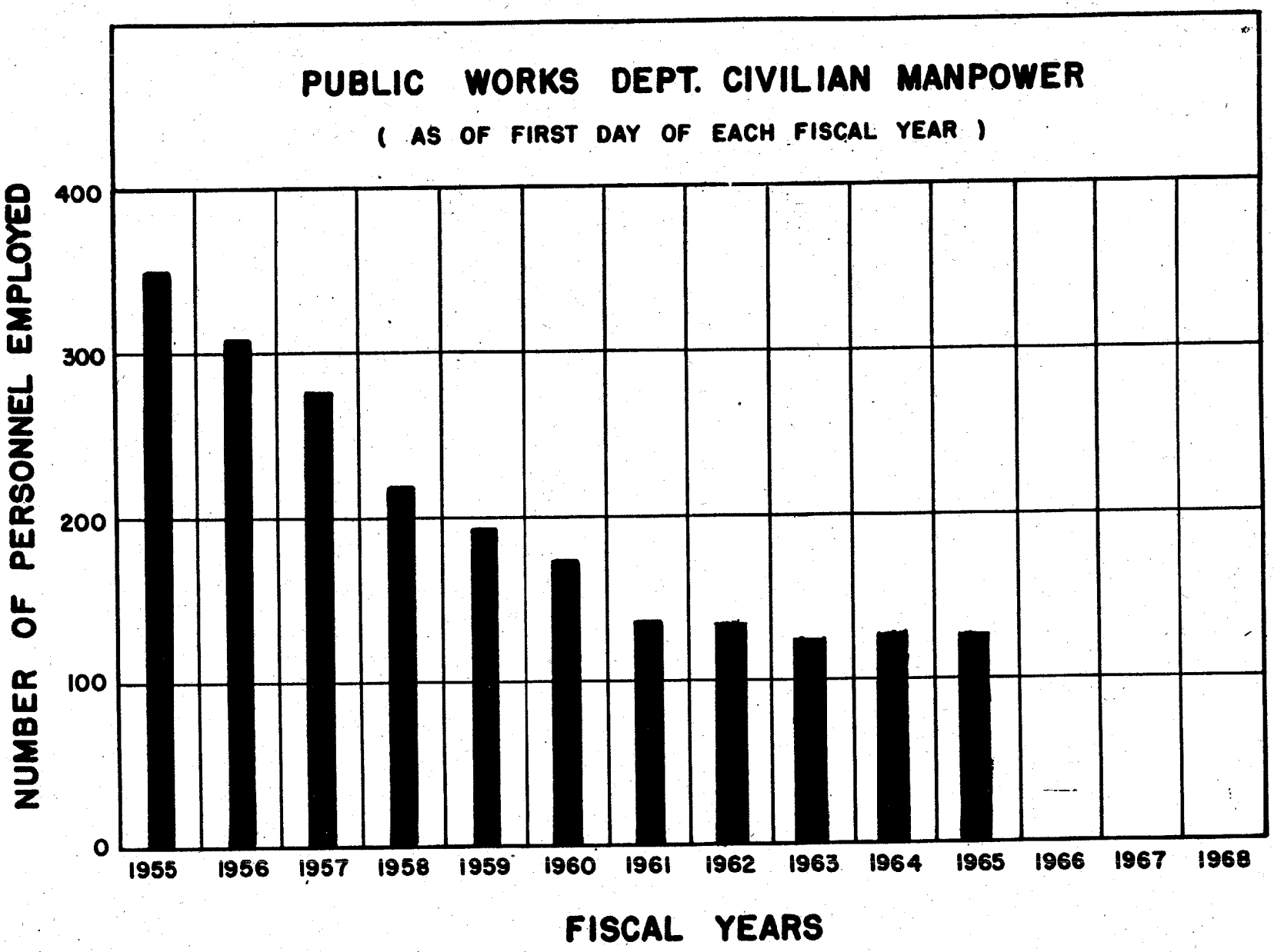
U. S. NAVAL AMMUNITION DEPOT
ST. JULIENS CREEK
PORTSMOUTH, VIRGINIA

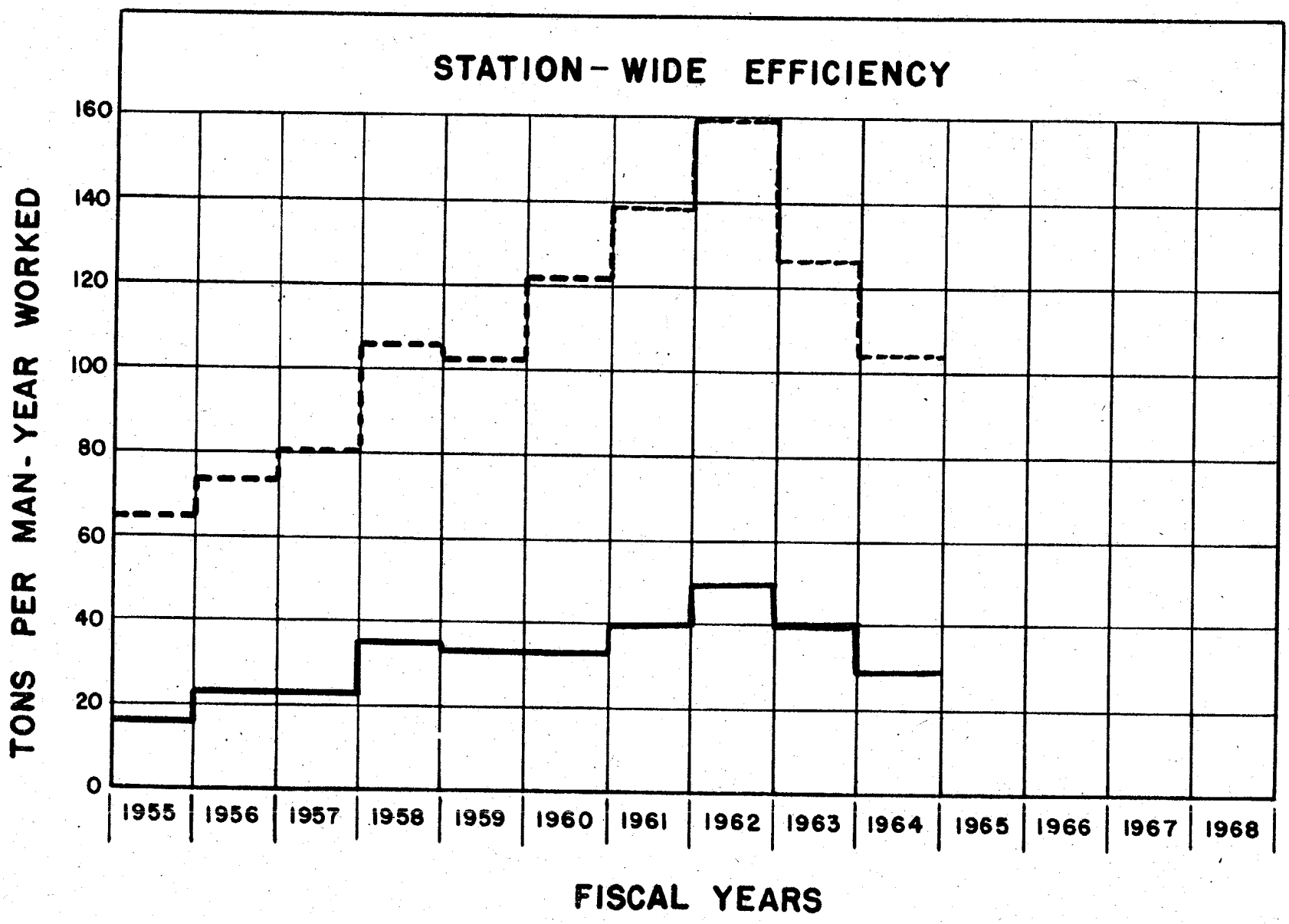
TOTAL DEPOT CIVILIAN MANPOWER

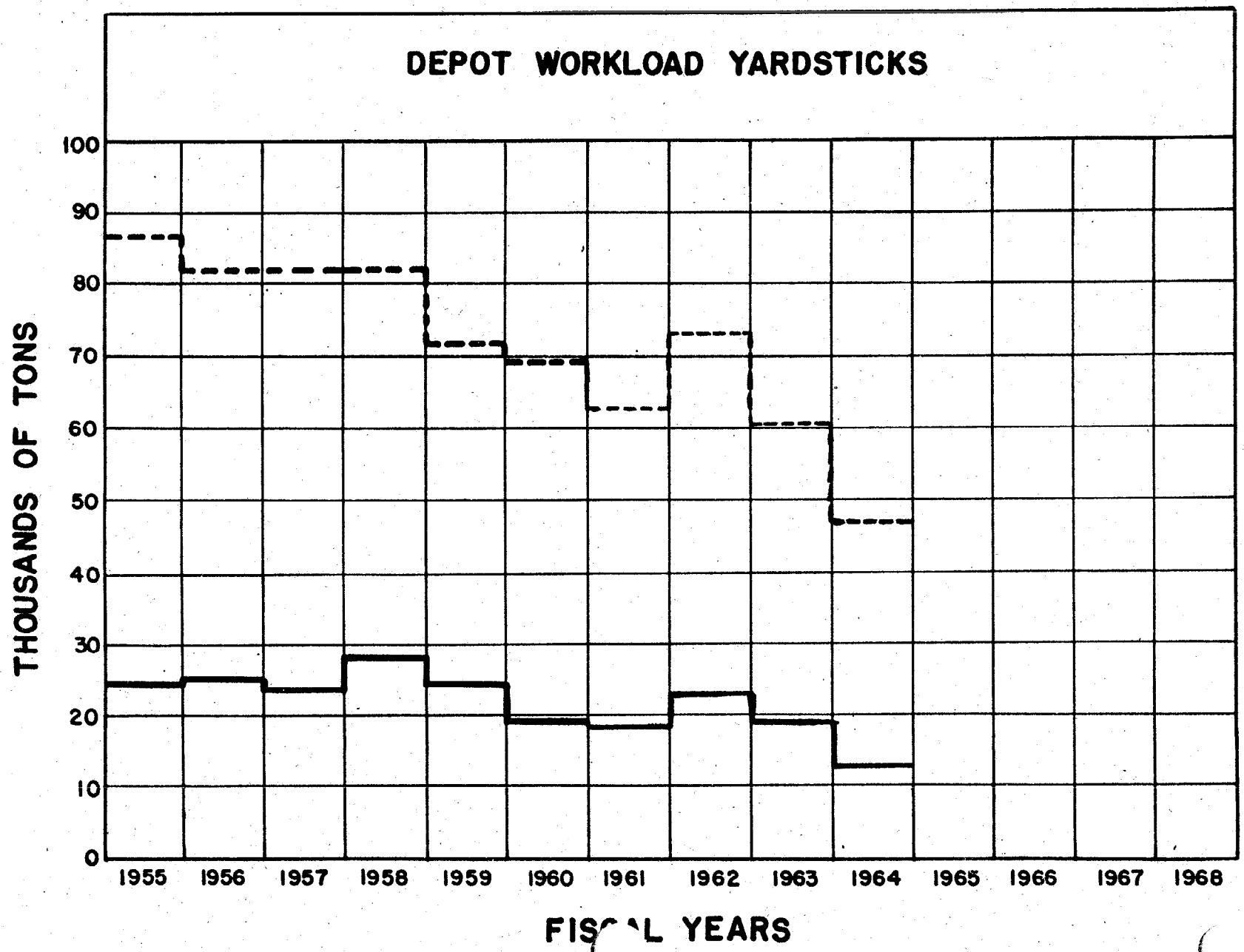
NOTE: These figures are based on employment levels as of 30 June each year except for the three peak periods (war years) when maximum employment was charted.

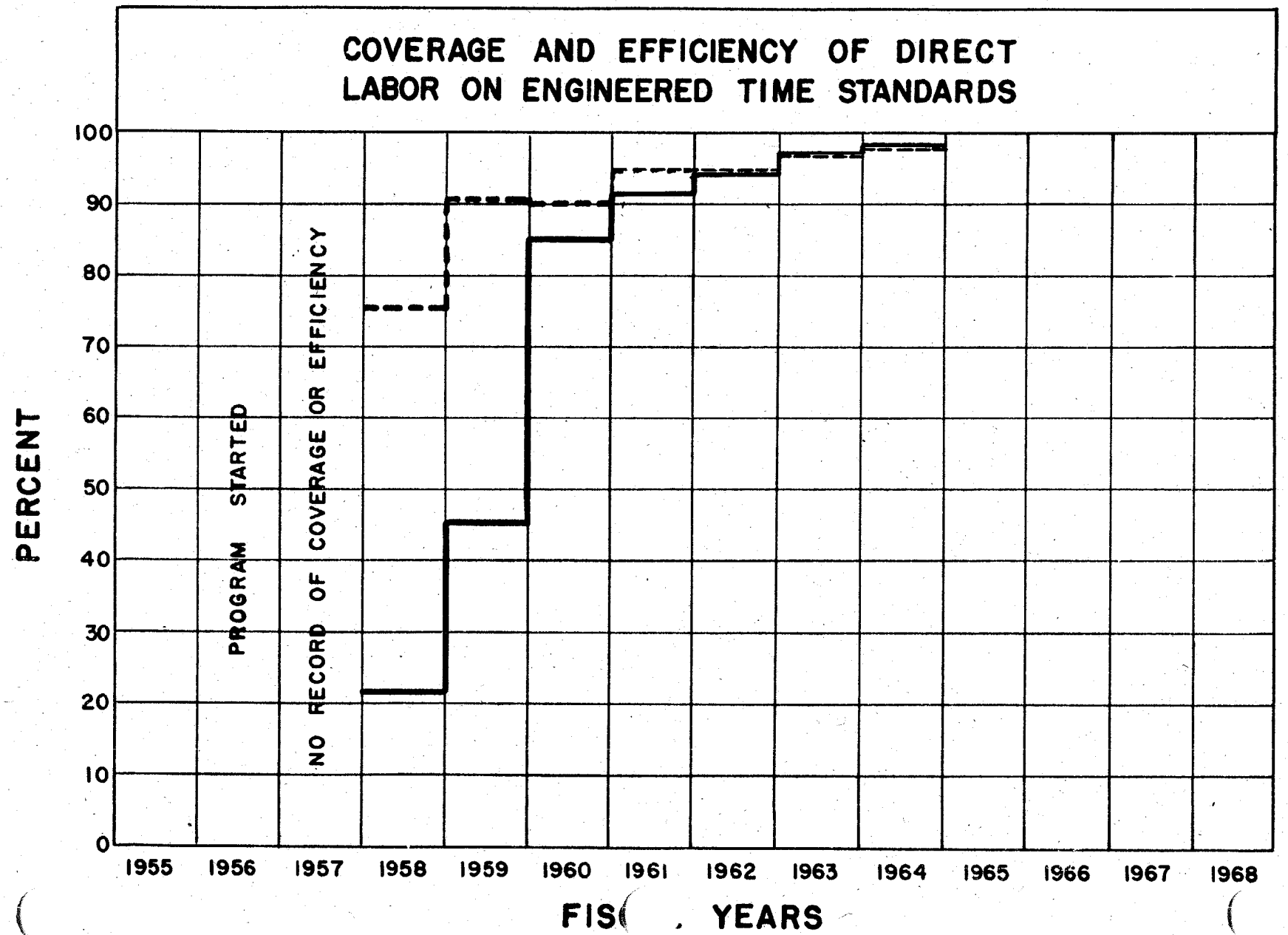



ORDNANCE DEPT. CIVILIAN MANPOWER
(AS OF FIRST DAY OF EACH FISCAL YEAR)
NUMBER OF PERSONNEL EMPLOYED
1000
900
800
700
600
500
400
300
200
100
0
1955
1956
1957
1958
1959
1960
1961
1962
1963
1964
1965
1966
1967
1968
F AL YEARS


PUBLIC WORKS DEPT. CIVILIAN MANPOWER
(AS OF FIRST DAY OF EACH FISCAL YEAR)
NUMBER OF PERSONNEL EMPLOYED
400
300
200
100
0
1955
1956
1957
1958
1959
1960
1961
1962
1963
1964
1965
1966
1967
1968
FISCAL YEARS


STATION-WIDE EFFICIENCY
TONS PER MAN-YEAR WORKED
0
20
40
60
80
100
120
140
160
1955
1956
1957
1958
1959
1960
1961
1962
1963
1964
1965
1966
1967
1968
FISCAL YEARS
FLEET RETURN AMMUNITION
TOTAL SHIPMENTS AND RECEIPTS


DEPOT WORKLOAD YARDSTICKS
THOUSANDS OF TONS
100
90
80
70
60
50
40
30
20
10
0
1955
1956
1957
1958
1959
1960
1961
1962
1963
1964
1965
1966
1967
1968
FISCAL YEARS
TONS OF FLEET RETURN AMMUNIT
TONS SHIPPED AND RECEIVED


COVERAGE AND EFFICIENCY OF DIRECT LABOR ON ENGINEERED TIME STANDARDS
PERCENT
100
90
80
70
60
50
40
30
20
10
0
PROGRAM STARTED
NO RECORD OF COVERAGE OR EFFICIENCY
1955
1956
1957
1958
1959
1960
1961
1962
1963
1964
1965
1966
1967
1968
FISCAL YEARS
COVERAGE
EFFICIENCY

AERIAL VIEW OF DEPOT