

CONFIDENTIAL

BUREAU OF ORDNANCE
NAVY DEPARTMENT
Washington, D.C.

MEMORANDUM

3 April 1946

From: Chief of Logistics Plans Section,
Planning and Progress Division

To: The Chief of the Bureau of Ordnance.

Via: Director, Planning and Progress Division.

Subject: Record of Expenditures, World War II -- Addendum No. 1 to.

Reference: (a) Chief of Logistics Plans Section Conf. [ILLEGIBLE]
of 28 January 1946 to ChBuOrd.

Enclosure: (A) Per Unit Expenditures of Gun Ammunition, Bombs, Torpedoes,
and Depth Charges.

(B) Additional Record of Aircraft Ammunition Expenditures and Depth Charge
and Torpedo Issues.

1. Paragraph 5 of reference (a) states that an addendum to reference (a) was in preparation for [ILLEGIBLE] which would give expenditures per gun, per tube, per airplane based on ammunition expended on mounted and installed equipment at various dates during the war. Enclosure (L) provides this information.

2. Paragraph 6 of reference.....

/s/
H.N. [ILLEGIBLE]

(Scanners Note: The original document is VERY badly faded -- it was printed/typed on glossy photographic paper, and the cover page had a large amount of it's ink rubbed away over the years. The original scan follows this partial transcript.)

File: World War II.

MEMORANDUM FOR THE CHIEF OF THE BUREAU OF ORDNANCE

3 April 1946

(Ordnance Expenditures)

From: Chief of Logistics Plans Section,
Planning and Progress Division

To: The Chief of the Bureau of Ordnance.

Via: Director, Planning and Progress Division.

Subject: Record of Expenditures World War II - Addendum No. 1 to.

Reference: (a) Chief of Logistics Plans Section report of 28 January 1946 to ChBaOrd.

Enclosure: (A) Per. Unit Expenditures of Gun Ammunition, Bombs, Torpedoes, and Depth Charges.
(B) Additional Record of Aircraft Ammunition Expenditures and Depth Charge and Torpedo Issues.

1. Paragraph 5 of reference (a) states that an addendum to reference (a) was in preparation which would give expenditures per gun, per tube, etc., based on ammunition expended on mounted and installed equipment at various dates during the war. Enclosure (A) contains this information.

2. Paragraph 6 of reference (a) states that the aircraft ammunition expenditures section would be completed in an addendum. Paragraph (a) indicates that torpedoes and depth charges be provided subsequently. Enclosure (B) is in Enclosure (B).

DECLASSIFIED IAW DOD MEMO OF 3 MAY 1972, SUBJECT: DECLASSIFICATION OF WWII RECORDS

GUN AMMUNITION - EXPENDITURES PER BARREL

<u>Year</u>	<u>16"/50</u>	<u>16"/45</u>	<u>14"/50</u>	<u>14"/45</u>	<u>12"/50</u>	<u>8"/55</u>
1941-42						
Rounds	-	1048	60	333	93	7174
Barrels	9	78	60	52	18	128
Rounds/Barrel	-	13.4	1	6.4	5.2	56.0
1943						
Rounds	302	2332	3500	1102	144	11137
Barrels	18	78	60	42	18	137
Rounds/Barrel	16.8	29.9	58.3	26.2	8.0	81.3
1944						
Rounds	1731	11697	20102	14699	1730	59666
Barrels	36	78	60	42	30	146
Rounds/Barrel	48.1	150.0	335.0	350.0	57.7	408.7
1945						
Rounds	1566	14212	16979	19355	2676	57612
Barrels	36	78	60	42	30	173
Rounds/Barrel	43.5	182.2	283.0	460.8	89.2	333.0

<u>Year</u>	<u>6"/53</u>	<u>6"/47</u>	<u>5"/51</u>	<u>5"/38</u>	<u>5"/25</u>	<u>3"/50</u>
1941-42						
Rounds	356	13213	1156	71886	15042	13774
Barrels	112	179	405	636	315	817
Rounds/Barrel	3.2	73.8	2.9	113.0	47.7	16.2
1943						
Rounds	11287	61978	6358	323417	26271	51392
Barrels	104	223	265	1590	192	2544
Rounds/Barrel	108.5	277.9	24.0	203.4	136.8	21.4
1944						
Rounds	8032	118541	25421	939292	97121	80833
Barrels	104	292	205	3040	190	4683
Rounds/Barrel	77.2	405.9	124.0	309.0	511.1	173.3
1945						
Rounds	-	109672	30997	957648	111613	25803
Barrels	90	400	109	4330	310	4144
Rounds/Barrel	-	274.2	284.4	221.2	360.0	6.2

DECLASSIFIED IN ACCORDANCE WITH MEMO OF 3 MAY 1972, SUBJECT: DECLASSIFICATION OF WWII RECORDS

~~CONFIDENTIAL~~

DECLASSIFIED
DATE 09-12-2009

GUN AMMUNITION * EXPENDITURES PER BARREL (Cont.)

<u>Year</u>	<u>4"/50</u>	<u>40-MM</u>	<u>1.1"</u>	<u>20-MM</u>	<u>50 Cal.</u>	<u>30 Cal.</u>
1941-42						
Rounds	720	21403	100815	497649	99718	67576
Barrels	396	164	1004	1769	2536	3437
Rounds/Barrel	18	130.5	100.4	281.3	39.3	19.6
1943						
Rounds	10440	950861	154996	4035917	43580	188196
Barrels	339	2950	744	14877	2486	3669
Rounds/Barrel	30.8	322.3	208.3	271.3	17.5	51.3
1944						
Rounds	2297	2137949	190368	6452612	1732986	262738
Barrels	351	12757	1580	37707	4156	3851
Rounds/Barrel	6.5	167.6	120.5	171.1	417.0	68.2
1945						
Rounds	717	2433516	24003	4060504	1231702	383155
Barrels	148	25810	908	51010	7657	3764
Rounds/Barrel	4.8	94.3	26.4	79.6	160.8	101.8

DECLASSIFIED IAW DOD MEMO OF 3 MAY 1972, SUBJ:
DECLASSIFICATION OF WWII RECORDS

~~CONFIDENTIAL~~

ENCLOSURE

BOMB EXPENDITURES

BOMES PER AIRPLANE PER MONTH - JANUARY 1945 THROUGH AUGUST 1945

Bomb Type	(- - - Carrier Based - - - - -)					(- Land Based - - - - -)			
	F6F	TBM	F4U-FG	SB2C SEW	FM	F6F	TBM	F4U-FG	SB2C SEW
100 GP	.14	25.80	.03	.14	.08	.14	9.74	.39	1.01
250 GP	.16	.18	.05	6.72	.04	-	-	.06	1.62
500 GP	2.02	10.57	1.94	10.59	.01	1.32	5.25	2.21	4.97
1000 GP	.19	.06	.24	1.29	-	.12	.21	1.38	.26
2000 GP	-	.20	-	.05	-	-	.15	.01	-
300 GP	-	-	-	-	-	-	-	-	-
500 S.A.P.	.01	.18	-	.11	-	-	.05	.03	.51
1000 S.A.P.	-	-	-	.45	-	-	-	.07	.16
1000 A.P.	-	-	-	.06	-	-	-	-	-
1600 A.P.	-	-	-	-	-	-	-	-	-
Incendiary	.01	.46	.03	-	-	.51	.14	.13	.78
Napalm	.16	-	.13	-	.19	.26	-	1.02	1.65
Fragmentation	.51	1.78	.27	.94	-	.13	1.57	.10	1.73
Torpedo	-	.11	-	-	-	-	-	-	-
Mine	-	-	-	-	-	-	-	-	-
Depth Bomb	.01	.06	.03	-	-	.13	.53	.03	1.25

Bomb Type	(- - - - - Land Based - - - - -)						
	SBD	PBM	PBY	PV	PBJ	PB4Y	PB2Y
100 GP	1.51	1.61	.21	.45	5.62	2.90	.74
250 GP	9.49	.37	.73	1.03	12.82	1.52	-
500 GP	8.33	.50	.25	.49	9.13	1.22	.83
1000 GP	6.47	-	-	.04	4.60	.05	-
2000 GP	-	-	-	-	1.14	.01	-
300 GP	-	-	-	-	1.71	.01	-
500 S.A.P.	-	-	-	-	.04	-	-
1000 S.A.P.	-	-	-	-	.43	-	-
1000 A.P.	-	-	-	-	.01	-	-
1600 A.P.	-	-	-	-	-	-	-
Incendiary	-	.49	.29	.31	1.85	.60	-
Napalm	.05	-	-	.44	-	-	-
Fragmentation	4.89	.04	.20	-	6.10	.03	-
Torpedo	-	.04	-	-	-	-	-
Mine	-	-	-	-	-	.08	-
Depth Bomb	-	.16	.03	.07	1.22	.01	-

NOTE:

Number of aircraft used in computing above expenditures is number on hand in Squadrons engaging in action at any time during the month. It was not possible accurately to determine bomb expenditures per airplane per month for 1942, 1943, and 1944 because of insufficiency of and lack of continuity in reports for those years. The 1945 figures cover the seven and one half month period during which the war continued.

DECLASSIFIED IAW EO 13526 MEMO OF 3 MAY 1990
 DECLASSIFICATION OF WWII RECORDS

~~CONFIDENTIAL~~

DECLASSIFIED
DOD DIR 5200.9

COMBAT TORPEDO EXPENDITURES PER TUBE

<u>Year</u>	<u>1k. 3, 9</u>	<u>1k. 11,12,15</u>	<u>1k. 10,11,13,23</u>	<u>1.13</u> (Surface raid)
1941-42				
Torpedoes	302	246	1948	-
Tubes	116	1887	642	0
Torps/Tubes	2.6	0.1	3.0	-
1943				
Torpedoes	386	366	3920	24
Tubes	750	2482	1002	438
Torps/Tubes	0.5	0.1	3.9	0.05
1944				
Torpedoes	65	307	6756	536
Tubes	165	3958	1508	1400
Torps/Tubes	0.4	0.1	4.5	0.4
1945				
Torpedoes	37	187	2686	110
Tubes	23	3463	2052	1264
Torps/Tubes	1.6	0.05	1.3	0.1

DECLASSIFIED IAW DOD MEMO OF 3 MAY 1972, SUBJ:
DECLASSIFICATION OF WWII RECORDS

ENCLOSURE A

~~CONFIDENTIAL~~

DEPTH CHARGE EXPENDITURES PER SHIP

<u>Year</u>	<u>Mk. 6</u>	<u>Mk. 7</u>	<u>Mk. 8</u>	<u>Mk. 9</u>	<u>Mk. 11</u>
1941-42					
Rounds	3093	1403	-	-	-
Ships (DD)	202	202	202	202	202
(DE, PF)	0	0	0	0	0
Rounds/Total Ships	15.3	6.9	-	-	-
1943					
Rounds	4988	2358	62	403	-
Ships (DD)	309	309	309	309	309
(DE, PF)	178	178	178	178	178
Rounds/Total Ships	3.5	4.0	0.1	0.7	-
1944					
Rounds	3876	1667	652	3001	-
Ships (DD)	376	376	376	376	376
(DE, PF)	460	460	460	460	460
Rounds/Total Ships	4.6	2.0	0.8	3.6	-
1945					
Rounds	1173	519	1985	2821	158
Ships (DD)	420	420	420	420	420
(DE, PF)	409	409	409	409	409
Rounds/Total Ships	1.1	0.6	2.4	3.4	0.2

It was not possible accurately to determine the number of racks for use in determining depth charge expenditures. Consequently, to provide some measure for future calculations, it was decided to compute expenditures on a per ship basis. The number of DD's, DE's, and PF's, was used as these vessels were those responsible for the vast majority of depth charge expenditures.

DECLASSIFIED IAW DOD MEMO OF 3 MAY 1972, SUBJ:
DECLASSIFICATION OF WWII RECORDS

ESTIMATED* EXPENDITURES ('DROPPINGS') OF NAVAL
AIRCRAFT BOMBS - JANUARY 1944 THROUGH APRIL 1944

	100# AN-M30A1	250# AN-M57A1	500# AN-M4364A1	1000# AN-M44,65A1	2000# AN-M34,65A1/A2		
Each	23,500	10,250	18,400	3,700	1,300		
Tons	1,175	1,281	4,600	1,850	1,300		
	<u>Semi-Armor Piercing</u>	<u>Armor Piercing</u>	<u>Depth 350# AN-Mk54-1</u>	<u>Incend. Bombs & Cl.</u>	<u>Jettison- able Gas Tanks</u>	<u>Frag. Bombs & Clusters</u>	
Each	1,350	230	1,750	5,900	NR	2,950	
Tons	575	121	306	NR	NR	NR	

NOTE:

* - Because of deficiencies in the aircraft action coding system for early 1944, actual figures for these individual months are not obtainable. Estimates are the best available, but may be in error up to 20%.

TABULATION OF TORPEDO ISSUES (APPROXIMATE)

<u>Year</u>	<u>Mk 7</u>	<u>Mk 8</u>	<u>Mk 9</u>	<u>Mk10</u>	<u>Mk11</u>	<u>Mk12</u>	<u>Mk 13</u>	<u>Mk14&23</u>	<u>Mk15</u>	<u>Mk18</u>
7 Dec. 1941-										
1 Jan. 1943										
Rounds	16 1060		11	733	-4(2)	-7(2)	1413	2974	1830	-
Tons	13 1618		13	812	-	-	2484	4723	3521	-
1 Jan. 1943-										
1 Jan. 1944										
Rounds	(1) 629	338		54 133	112		1854	3545	762	304
Tons	- 960	408		60 234	197		3259	5629	1466	456
1 Jan. 1944-										
1 Jan. 1945										
Rounds	(1) (1)	(1)	(1)	(1) (1)	(1)		4563	5404	2057	3060
Tons	- -	-	-	- -	-		3022	8582	3958	4590
1 Jan. 1945-										
1 Sep. 1945										
Rounds	(1) (1)	(1)	(1)	(1) (1)	(1)		1846	2442	-187(2)	2054
Tons	- -	-	-	- -	-		3245	3878	-	3081
TOTAL ROUNDS	16 1689	349	787	133 112	9676	14365	4649	5418		
TOTAL TONS	13 2578	421	872	234 197	17010	22812	8945	8127		

NOTES:

- (1) Eventually became obsolete and later scrapped.
- (2) Negative issue probably due to torpedoes being turned in in exchange for other marks or occasioned by removal of part of ships allowance.

GENERAL NOTE:

Figures shown above were obtained by adding to the reserve inventory afloat at the beginning of the year the production during the year covered, and deducting the reserve inventory at the end of the year. It is believed that the figures derived from this study represents the approximate total number of torpedoes required for all purposes such as expenditures, requirements to fill new construction, pipe line requirement to establish a needed reserve on tenders, advanced bases, and continental depots, and an amount required to be continuously enroute to these activities to reinforce the ready reserve.

This study has entirely omitted the afloat quantities on combatant ships. Accordingly, there is an inherent error due to changes in ships allowance, and especially in the case of submarines, inventories might reflect a larger or smaller quantity of ships allowances being counted as reserves ashore at the immediate time of the inventory.

DECLASSIFIED IN DOD MEMO OF 3 MAY 1972, SUBJ: DECLASSIFICATION OF WWII RECORDS

Year	Mk 6	Mk 7	Mk 8	Mk 9&9-1	Mk 9-2,3,4	Mk 10
7 Dec. 1941-						
1 Jan. 1943						
Rounds	31,381*	19,237*	-	-	-	-
Tons	17,090	7,387	-	-	-	-
1 Jan. 1943-						
1 Jan. 1944						
Rounds	64,738	4,872	%	20,628	-	-
Tons	13,590	1,871		2,475	-	-
1 Jan. 1944-						
1 Jan. 1945						
Rounds	24,498	1,034	41,165	-4,503#	73,067	27,295
Tons	5,140	397	10,703	-	3,653	1,365
1 Jan. 1945-						
1 Sep. 1945						
Rounds	10,195	7,215	8,578	-7,068#	12,499	14,198
Tons	2,141	2,771	2,230	-	625	710
TOTAL ROUNDS	180,812	32,358	49,743	20,628	85,566	41,493
TOTAL TONS	37,961	12,426	12,933	2,475	16,152	2,075

NOTES:

* - Figures derived by adding to the reserve inventory ashore on 1 March 1942, the production from 7 December 1941 to 1 January 1943 and deducting the reserve inventory ashore on 1 January 1943. Accordingly, this is not a true yearly issue as all of the necessary information is not available.

% - No issues reported as production of 702 was not released for service use.

- Negative issues probably due to turn in by fleet for other marks

GENERAL NOTE:

Figures shown above were obtained by adding to the reserve inventory afloat at the beginning of the year, the production during the year covered, and deducting the reserve inventory at the end of the year. It is believed that the figures derived from this study represents the approximate total number of depth charges required for all purposes such as expenditures, requirements to fill new construction, pipe line requirement to establish a needed reserve on tenders, advanced bases, and continental depots, and an amount required to be continuously enroute to these activities to reinforce the ready reserve.

This study has entirely omitted the afloat quantities on combatant ships. Accordingly, there is an inherent error due to changes on ships allowances, and in cases where ships might have their allowances stocked ashore temporarily, and so included in the reserve inventory ashore at the immediate time of the inventory.