

THIS PLAN SUPERSEDES PLAN NO.1687-481,  
BUSHIPS NO. 55481-50103-71827.

SATISFACTORY TO	
COMMANDING OFFICER	DATE
<i>E. P. Hame</i>	9-19-62
<i>W. R. Guinan</i>	7-27-65

# SUBMARINE SS 481

## BOOKLET OF GENERAL PLANS

GROUP-3  
Downgraded at 12 year  
intervals; not  
automatically declassified

THIS MATERIAL CONTAINS INFORMATION AFFECTING  
THE NATIONAL DEFENSE OF THE UNITED STATES  
WITHIN THE MEANING OF THE ESPIONAGE LAWS, TITLE  
18 U.S.C., SECTIONS 793 AND 794, THE TRANSMISSION  
OR REVELATION OF WHICH IN ANY MANNER TO AN  
UNAUTHORIZED PERSON IS PROHIBITED BY LAW

REVISED AT NNSY TO SUIT SHIP AS CHECKED 24 SEPTEMBER 1965 D.M.T.	9/24/65	ALT. 9
REVISED AT NNSY TO AGREE WITH SHIP AS CHECKED 9-19-62 MID.	9/19/62	ALT. 8
REVISED AT CHAS. NAV. SHYD. TO AGREE WITH SHIP AS CHECKED 12-18-59 R.W.C. <i>gyp</i>	DEC. 18, 1959	<i>J. T. Schacht</i> P.E. ALT. 7
PLACE	DATE	DESIGN SUPERINTENDENT

CORRECTED TO SUIT SHIP		
PLACE	DATE	PLANNING OFFICER
NAVSHIPYD, PORTSMOUTH, N.H.	22 NOV. 1948	<i>S. S. Schacht</i>
NAVSHIPYD, PORTSMOUTH, N.H.	8 AUGUST 1950	<i>H. H. Schacht</i>
NAVSHIPYD, PORTSMOUTH, N.H.	FEB 18 1954	<i>D. H. Kern</i>
PHILA. NAVAL SHIPYARD	JUNE 25 1954	<i>R. J. Joller</i>
REVISED AT CHASNAVSHYD TO AGREE WITH SHIP AS CHECKED 5-14-57.	21 MAY 1957	ALT. 5
REVISED AT CHASNAVSHYD TO AGREE WITH SHIP AS CHECKED 11-19-59 <i>gyp</i> O.W.U.	15 DEC. 1959	<i>J. T. Schacht</i> P.E. ALT. 6

PLATE NO.1	TITLE COVER
PLATE NO.2	GENERAL DIMENSIONS
PLATE NO.3	OUTBOARD PROFILE
PLATE NO.4	INBOARD PROFILE
PLATE NO.5	MAIN DECK
PLATE NO.6	PLATFORM DECK
PLATE NO.7	HOLD
PLATE NO.8	TYPICAL SECTIONS
PLATE NO.9	TYPICAL SECTIONS

NAVAL SHIPYARD, PORTSMOUTH, N. H.

14 December, 1948

DRAWN BY COLLINS (C.B.)

CHECKED BY E. B. WOODS

UNIT HEAD E. B. WOODS (ACTING)

GROUP HEAD *Admiral*

SECTION HEAD *Admiral*

HEAD ENGINEER *Admiral*

TECHNICAL OFFICER *Admiral*

PLANNING OFFICER *Admiral*

BU. NO. SS 481-50103-934700



ACCOMMODATIONS					
COMPARTMENT	OFFICERS BERTHS	C.O. BERTHS	CREWS BERTHS	CREWS LOCKERS	MISC. LOCKERS
FWD TORPEDO ROOM			11		EMERG. RATIONS
OFFICERS QTRS	10				
CREWS SPACE		5	26		MED & PEACOCK
STERN ROOM			27		
TOTALS	10	5	64		
TOTAL ACCOMMODATIONS - 72 MEN					

COMPARTMENT CAPACITIES (FLOODABLE VOLUME.)					
COMPARTMENT	CAPACITY		C.G. ADV. BOT. OF KEEL	C.G. FORD. FR. GB	C.G. AFT. FR. GB
	CU. FT.	TONS S.W.			
FORD TORPEDO ROOM	4772	136.3	13.00	97.50	—
FORD BATTERY ROOM	4150	118.5	13.60	63.00	—
CONTROL & PUMP ROOM	4060	116.0	12.19	34.34	—
CONNING TOWER	670	19.10	24.38	30.65	—
AFT. BATTERY COMP'T.	6290	179.8	13.19	—	0.00
FORD ENGINE ROOM	3990	114.0	12.39	—	35.47
AFT. ENGINE ROOM	4049	115.69	12.30	—	60.35
MOTOR & MANEUVR. ROOM	3130	89.43	12.20	—	89.05
STERN ROOM	4100	117.14	15.00	—	115.47
TOTAL	35211				

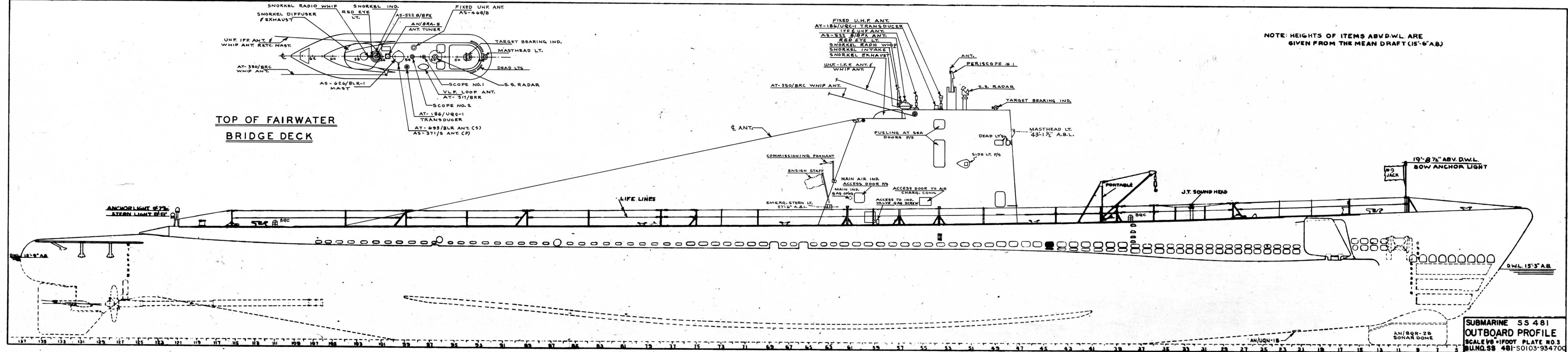
CAPACITIES OF TANKS			VENT PIPING INCLUDED		
LUBRICATING OIL	GALS.	TONS(OIL)	SANITARY	GALS.	TONS(S.W.)
ENGINE STOWAGE NO.1 95% CAP.	605	2.08	NO.1 (FORD)	320	1.22
ENGINE STOWAGE NO.2 95% CAP.	1067	3.67	NO.2 (AMIDSHIPS)	752	2.87
ENGINE STOWAGE NO.3 95% CAP.	350	1.20	NO.3 (AFT)	690	2.64
ENGINE STOWAGE NO.4 95% CAP.	201	.69	TOTAL	1762	6.73
ENGINE STOWAGE NO.5 95% CAP.	1473	5.06	FRESH WATER	GALS.	TONS(F.W.)
TOTAL	3696	12.70	NO. 0	500	1.89
MAIN ENG. SUMP NO.1 75% CAP.	444	1.52	NOS. 1&2	1980	7.33
MAIN ENG. SUMP NO.2 75% CAP.	444	1.52	NOS. 3&4	1980	7.33
MAIN ENG. SUMP NO.3 75% CAP.	444	1.52	TOTAL	4460	16.59
MAIN ENG. SUMP NO.4 75% CAP.	444	1.52	BATTERY FRESH WATER	GALS.	TONS(F.W.)
TOTAL	1776	6.08	FORD.	602	2.24
MAIN MOT. SUMP NO.1 75% CAP.	116	.41	AFT.	565	2.09
COMB. TOTAL	5590	19.19	TOTAL	1167	4.33
			COMB. TOTAL F.W.	5627	20.92
			MAIN BALLAST	GALS.	TONS(S.W.)
			NO.1	7082	27.05
			NOS. 2A & 2B	17478	66.76
			NOS. 2C & 2D	27005	103.15
			NOS. 6A & 6B	30924	118.12
			NOS. 6C & 6D	26191	100.04
			SAFETY	6341	24.22
			TOTAL	115070	439.53
			FUEL BALLAST	GALS.	TONS(S.W.)
			NOS. 3A & 3B	17740	67.76
			NOS. 5A & 5B	20059	76.62
			TOTAL	37799	144.38
			COMB. TOTAL	152869	583.91
			Negative	3168	12.10
			VARIABLE BALLAST	GALS.	TONS(S.W.)
			FORD. PORT & STBD.	6175	19.18
			AFTER PORT & STBD.	9856	30.61
			TOTAL	16031	49.79
			FUEL BALLAST	GALS.	TONS(S.W.)
			NOS. 3A & 3B	17368	53.94
			NOS. 5A & 5B	19614	60.91
			TOTAL	36982	114.85
			COMB. TOTAL	113881	353.65
			DOWN BUOYANCY	7906	30.20

HEIGHTS	
LOWEST POINT OF KEEL TO TOP OF STRENGTH HULL AMIDSHIPS ON	15'-10"
LOWEST POINT OF KEEL TO TOP OF BRIDGE DECK	42'-8"
LOWEST POINT OF KEEL TO TOP OF HIGHEST PERISCOPE EXTENDED	62'-6 7/8"
LOWEST POINT OF KEEL TO TOP OF CONNING TOWER PLATING	28'-4 1/2"
LOWEST POINT OF KEEL TO TOP OF PERISCOPE F.D.N. STRUCTURE ABOVE THIS POINT LARGELY UNBALANCED	33'-2"
LOWEST POINT OF KEEL TO TOP OF PERISCOPE SUPPORTS	47'-6"
LOWEST POINT OF KEEL TO TOP OF NO. 2 PERISCOPE	ART. 66'-7"
LOWEST POINT OF KEEL TO TOP OF MAST HEAD LIGHT	43'-1 1/2"
LOWEST POINT OF KEEL TO TOP OF SNORKEL EXTENDED	65'-3 1/2"

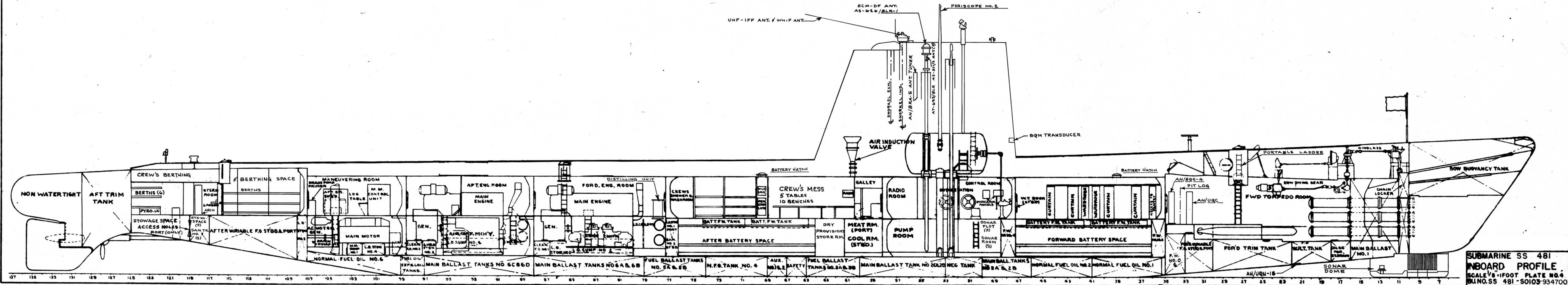
PRINCIPAL DIMENSIONS	
LENGTH OVERALL	311'-9"
LENGTH BETWEEN PERPENDICULARS	307'-0"
BREADTH, MOLDED	27'-1 1/2"
BREADTH, EXTREME	27'-3 1/2"
PROJECTION FORD OF F.P.	4'-8 1/2"
LENGTH OF STRAIGHT KEEL	154'-8 1/2"
DRAFT - SURFACE CONDITION TO UNDERSIDE OF KEEL PLATES (MEAN) N.D.T. 15'-5"	
RATIO - LENGTH TO BEAM	11.41
SHAFTS - DIVERGE AT ANGLE WITH	2'-49"
SHAFTS & AT MAIN MOTOR (6 1/2" AFT OF FR. 104) FROM	3'-3.7291
SHAFTS & AT MAIN MOTOR (6 1/2" AFT OF FR. 104) ABOVE BASE LINE	7'-5.4771"
SHAFTS RAKE OUTBOARD & AFT .04915" PER INCH FROM	
SHAFTS RAKE FROM BASELINE & FORD .01474" PER INCH FROM BASELINE	
SHAFTS & FROM BASELINE AT FR. 120	6'-9"
SCREWS CENTER FORD. OF A.P.	18'-5 1/2"
RUDDER AXIS FORD. OF A.P.	18'-6"
NUMBER OF FRAMES	137
FRAME SPACING - B TO FR. 35-24", FR. 35 TO FR. 62-30", FR. 62 TO FR. 68-24", FR. 69 TO FR. 105-30", FR. 105 TO FR. 137-24".	

SUBMARINE SS 481  
GENERAL DIMENSIONS  
PLATE NO.2  
BUNO. SS 481 - S0103-934700



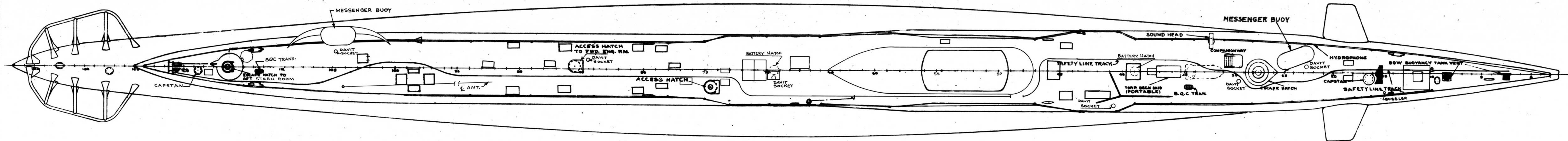






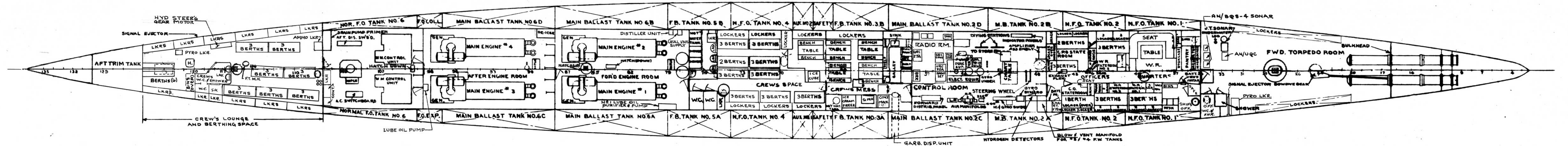
SUBMARINE SS 481  
 INBOARD PROFILE  
 SCALE 1/8"=1' FOOT PLATE NO. 4  
 BUINO SS 481-SO103-934700





SUBMARINE SS 481  
 MAIN DECK  
 SCALE 1/8" = 1 FOOT PLATE NO. 5  
 BU. NO. SS 481-SOI03-934700





SUBMARINE SS 481  
 PLATFORM DECK  
 SCALE 1/8"=1'00" PLATE NO. 6  
 BU. NO. 55 481-SO103-934700











