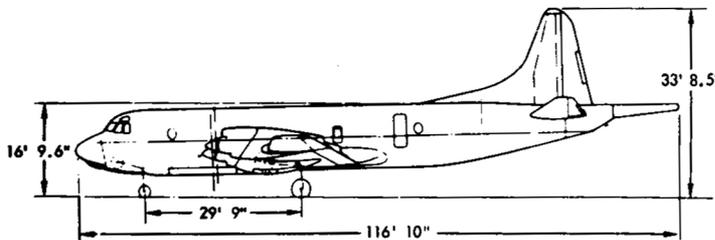
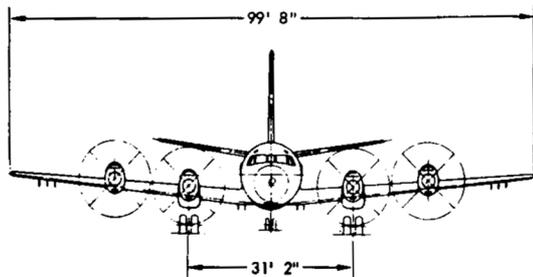
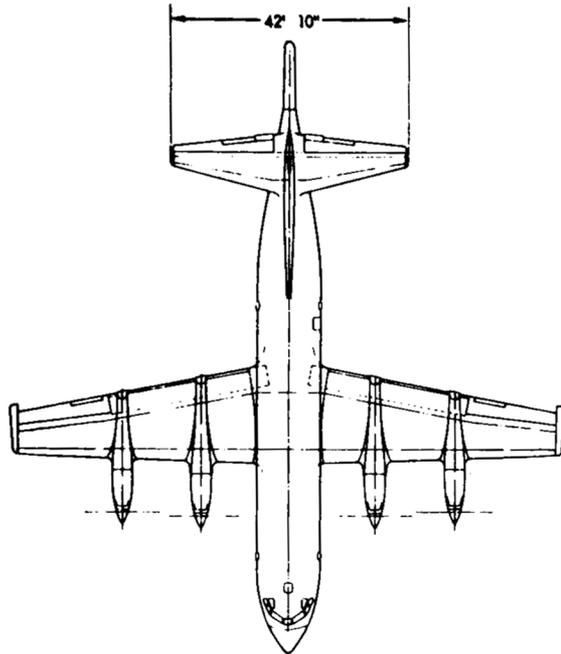


# STANDARD AIRCRAFT CHARACTERISTICS

YP-3C/P-3C

LOCKHEED

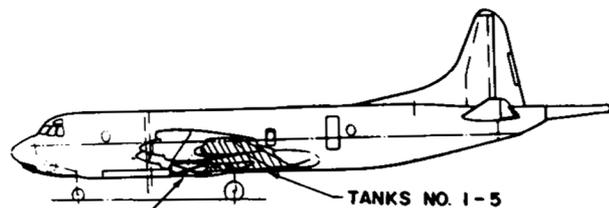
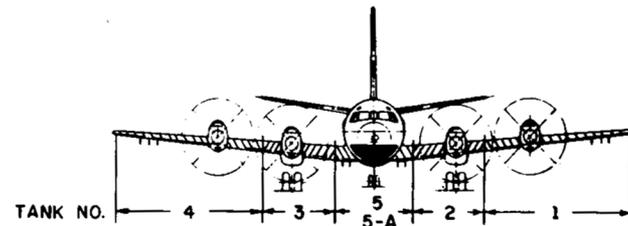
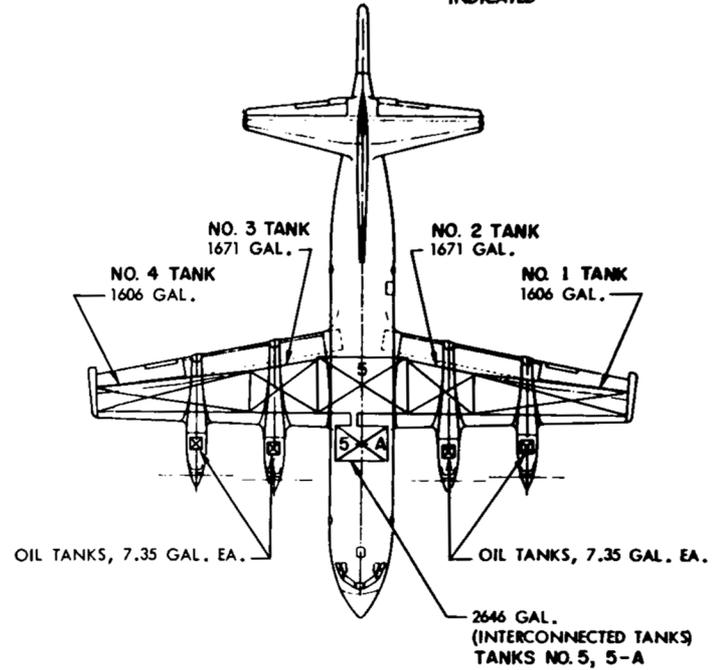
NAVAL AIR SYSTEMS COMMAND  
NAVY DEPARTMENT



DESCRIPTIVE ARRANGEMENT

NAVAL AIR SYSTEMS COMMAND  
NAVY DEPARTMENT

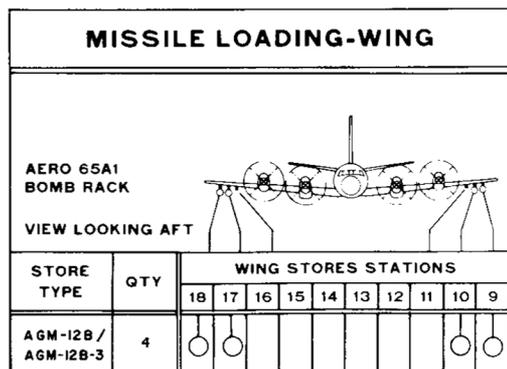
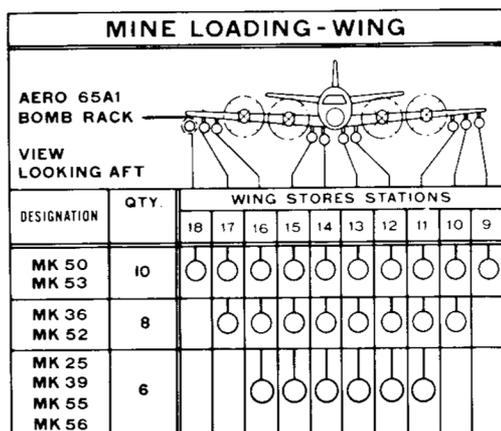
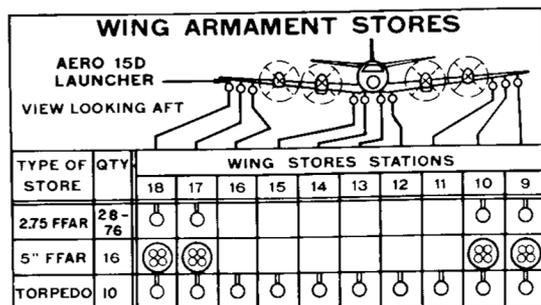
NOTE: TOTAL USABLE TANK CAPACITIES  
INDICATED



NOTE: SEE ATTACHED SUPPLEMENTAL  
SHEET FOR ARMAMENT  
INSTALLATIONS

TANKAGE

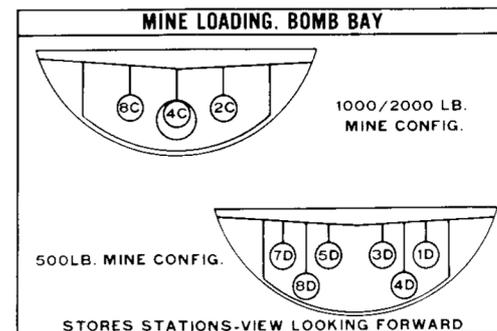
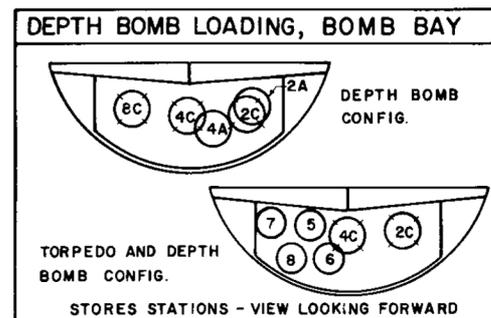
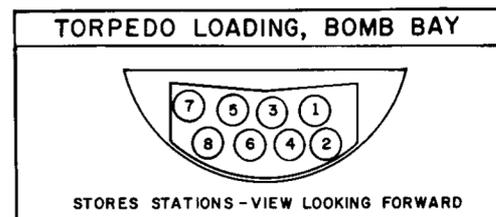
NAVAL AIR SYSTEMS COMMAND  
NAVY DEPARTMENT



ARMAMENT

NOTE: NUMBERS SHOWN ARE STORES LOADING STATIONS. LOADING SEQUENCE AND OTHER DETAILS ARE SHOWN ON BOMB BAY DECALS.

NAVAL AIR SYSTEMS COMMAND  
NAVY DEPARTMENT



ARMAMENT

POWER PLANT	MISSION AND DESCRIPTION	WEIGHTS																																								
<p>NO. AND MODEL (4) T56-A-14            MANUFACTURER Allison            SPECIFICATION ..... No. 670, 20 Dec. 1963            PROPELLER MFR. Ham.Std.            NO. BLADES/DIA. 4/13.5 Ft.            PROPELLER NO. 54H60-77/A7121B-2            PROPELLER GEAR RATIO 1:13.54            PROPELLER SPEC 1845A</p> <p style="text-align: center;"><b>RATINGS</b></p> <table border="1"> <thead> <tr> <th>RATING</th> <th>ESHP</th> <th>EXHAUST THRUST</th> <th>RPM</th> </tr> </thead> <tbody> <tr> <td>T.O.</td> <td>4910</td> <td>797</td> <td>13,820</td> </tr> <tr> <td>Military</td> <td>4680</td> <td>781</td> <td>13,820</td> </tr> <tr> <td>Normal</td> <td>4365</td> <td>760</td> <td>13,820</td> </tr> </tbody> </table>	RATING	ESHP	EXHAUST THRUST	RPM	T.O.	4910	797	13,820	Military	4680	781	13,820	Normal	4365	760	13,820	<p>The Lockheed P-3C is designed to detect, locate and destroy enemy submarines and cargo vessels in areas where enemy air opposition is not expected. Additional mission capabilities include the following: barrier patrol, convoy escort, hold down, hunter/killer operations, area search, mining enemy waters, reconnaissance and surveillance operations, and in-flight area coordination at a scene of action. It is equipped with the most modern electronic equipment and incorporates the A-New electronic data processing system.</p> <p>The P-3C bomb bay located in the bottom of the forward fuselage is 80 inches wide, 34.5 inches deep and 154 inches long. It is equipped with store suspension pylons designed to carry and release ASW stores including torpedoes, depth bombs and mines.</p>	<table border="1"> <thead> <tr> <th>LOADINGS</th> <th>LBS.</th> <th>L.F.</th> </tr> </thead> <tbody> <tr> <td>Empty</td> <td>66,211</td> <td>-</td> </tr> <tr> <td>Design (Flight)</td> <td>135,000</td> <td>3.0,-1.0</td> </tr> <tr> <td>Combat</td> <td>111,252</td> <td>3.0,-1.0</td> </tr> <tr> <td>Max. Take-Off, Normal</td> <td>139,760</td> <td>-</td> </tr> <tr> <td>Max. Take-Off, Overload</td> <td>142,000</td> <td>2.5,-0.8</td> </tr> <tr> <td>Max. Landing - Design</td> <td>103,880</td> <td>2.0,-0</td> </tr> <tr> <td>- Emergency</td> <td>135,000</td> <td>-</td> </tr> </tbody> </table>	LOADINGS	LBS.	L.F.	Empty	66,211	-	Design (Flight)	135,000	3.0,-1.0	Combat	111,252	3.0,-1.0	Max. Take-Off, Normal	139,760	-	Max. Take-Off, Overload	142,000	2.5,-0.8	Max. Landing - Design	103,880	2.0,-0	- Emergency	135,000	-
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<p style="text-align: center;"><b>ELECTRONICS</b></p> <p><u>Communication</u></p> <p>UHF..... AN/ARC-143            VHF..... AN/ARN-87            HF..... AN/ARC-142            Teletypewriter..... AN/AGC-6            Intercom..... AN/ATC-22            IFF Transponder..... AN/APX-72            SIF Interrogator..... AN/APX-76            Emerg. Trans..... AN/PRC-17            Data Link..... AN/ACQ-5</p> <p><u>Navigation</u></p> <p>Central Repeater..... AM-4923/A            True Airspeed..... A/A24G-9            Periscopic Sextant.....            Inertial Nav. Sys.(2)..... AN/ASN-84            Horizontal Situation Ind.....            Flight Director Sys..... AN/AJN-15            Doppler Radar..... AN/APN-187            Loran..... AN/ARN-81            Altimeter..... AN/APN-141            Tacan..... AN/ARN-52            Marker Beacon..... AN/ARN-32            UHF DF..... AN/ARA-25A            LF DF..... AN/ARN-83            Glide Slope.....            OTPI Receiver..... R-1047A/A            VHF Navig.-Comm..... AN/ARN-87            RAWS Radar Alt. Warning Set..... AN/APQ-107            Automatic Pilot..... PB-20N</p> <p>--- Continued on NOTES page.</p>	<p>The P-3C is equipped with ten external store pylons mounted beneath the wing, five pylons on either side of the airplane centerline. These pylons are used to ferry and release torpedoes and mines. Rocket pods as well as missiles can be mounted on the two outermost pylons of each wing.</p> <p>The data contained in these charts conform with detail specification SD-536-2 and are valid for P-3C aircraft covered under this specification (BuNo 156507-156530 and BuNo 157310-157332).</p> <p>The data also are representative for the YP-3C aircraft, BuNo 153443.</p> <p style="text-align: center;"><b>DEVELOPMENT</b></p> <p>FIRST FLIGHT, P-3A..... 30 MARCH 1961            FLEET SERVICE, P-3A..... 13 AUGUST 1962            FIRST FLIGHT, P-3B..... 24 SEPTEMBER 1965            FLEET SERVICE, P-3B..... 1 JANUARY 1966            FLEET SERVICE, P-3B WITH ECP-494..... 26 AUGUST 1967            FIRST FLIGHT, YP-3C..... 18 SEPTEMBER 1968            FLEET SERVICE, P-3C..... SEPTEMBER 1969 (SCHED.)</p>	<p style="text-align: center;"><b>FUEL AND OIL</b></p> <table border="1"> <thead> <tr> <th>NO. TANKS</th> <th>GALES.*</th> <th>LOCATION</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>3212</td> <td>Wing (Outboard)</td> </tr> <tr> <td>2</td> <td>3342</td> <td>Wing (Inboard)</td> </tr> <tr> <td>1</td> <td>2646</td> <td>Center and Fuselage Aux.</td> </tr> <tr> <td><u>Total</u></td> <td>9200</td> <td></td> </tr> <tr> <td>FUEL GRADE .....</td> <td>JP-5</td> <td></td> </tr> <tr> <td>FUEL SPEC .....</td> <td>MIL-F-5624C</td> <td></td> </tr> </tbody> </table> <p>* Total usable fuel.</p> <p style="text-align: center;"><b>OIL</b></p> <p>Total Usable Capacity (Gals) ..... 21            Spec ..... MIL-L-7808C</p>	NO. TANKS	GALES.*	LOCATION	2	3212	Wing (Outboard)	2	3342	Wing (Inboard)	1	2646	Center and Fuselage Aux.	<u>Total</u>	9200		FUEL GRADE .....	JP-5		FUEL SPEC .....	MIL-F-5624C																				
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	<p style="text-align: center;"><b>DIMENSIONS</b></p> <p>WING:            Area..... 1300 Sq.Ft.            Span ..... 99 Ft. 8 In.            M.A.C. .... 168.7 In.            LENGTH ..... 116 Ft. 10 In.            HEIGHT ..... 33 Ft. 8.5 In.            TREAD ..... 31 Ft. 2 In.            PROP. GRD. CLEARANCE ..... 21.75 In.</p>	<p style="text-align: center;"><b>ORDNANCE</b></p> <table border="1"> <thead> <tr> <th>STATIONS</th> <th>PAYLOAD</th> </tr> </thead> <tbody> <tr> <td>9 &amp; 18</td> <td>500 lb class store</td> </tr> <tr> <td>10 &amp; 17</td> <td>1000 lb class store</td> </tr> <tr> <td>11 &amp; 16</td> <td>2000 lb class store</td> </tr> <tr> <td>12 &amp; 15</td> <td>2000 lb class store</td> </tr> <tr> <td>13 &amp; 14</td> <td>2000 lb class store</td> </tr> </tbody> </table> <p>Internal Limited by size of stores</p>	STATIONS	PAYLOAD	9 & 18	500 lb class store	10 & 17	1000 lb class store	11 & 16	2000 lb class store	12 & 15	2000 lb class store	13 & 14	2000 lb class store																												
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## PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION	① ASW BASIC MISSION 6 MK-46	③ MAXIMUM INTERNAL 8 MK-46	⑤ MINELAYING MISSION 11 MK-36	⑦ - OVERLOAD - MINELAYING MISSION 11 MK-36	⑨ FERRY RANGE MISSION	
TAKE-OFF WEIGHT	lb.	135,000	135,000	135,000	142,000	133,168
Fuel internal/external (JP-5)	lb./lb.	59,370/-	58,269/-	52,525/-	59,525/-	62,560/-
Payload	lb.	5,102	6,162	12,550 (C)	12,550 (C)	500
Wing loading	lb./sq. ft.	103.8	103.8	103.8	109.2	102.4
Stall speed—power-off	kn.	122	122	122	125	121
Take-off run at S.L.— calm (A)	ft.	4240	4240	4240	4760	4100
Take-off run at S.L.— 25 kn. wind	ft.					
Take-off to clear 50 ft.— calm (A)	ft.	5600	5600	5680	6360	5420
Max. speed/altitude (B)	kn./ft.	379/7400	379/7400	343/7400	339/7200	379/8000
Rate of climb at S.L. (B)	fpm.	2000	2000	1820	1660	2050
Time: S.L. to 10,000 ft. (B)	min.	6.3	6.3	7.0	7.9	6.0
Time: S.L. to 20,000 ft. (B)	min.	18.2	18.2	21.9	26.0	17.3
Service ceiling (100 fpm) (B)	ft.	24,700	24,700	22,900	21,350	25,100
Combat range	n.mi.	3420	3340	3100	3460	4520
Average cruising speed	kn.	284	284	303	303	314
Cruising altitude(s)	ft.	15,000	15,000	21,000/30,000	19,200/30,000	23,600/30,000
Combat radius/mission time	n.mi./hr.	1265/12.0	1220/11.7	1500/10.4	1700/11.7	
Average cruising speed	kn.	282	282	290	295	
Search time /altitude	hr./ft.	3.0/1500	3.0/1500			
Search speed	kn.	197	198			
COMBAT LOADING CONDITION	② STORES RETAINED	④ STORES RETAINED	⑥ MINES EXPENDED	⑧ MINES EXPENDED		
COMBAT WEIGHT	lb.	111,252	111,692	101,440	105,640	
Engine power		MILITARY	MILITARY	MILITARY	MILITARY	
Fuel	lb.	35,622	34,961	31,515	35,715	
Combat speed/combat altitude	kn./ft.	363/1500	363/1500	360/SEA LEVEL	359/SEA LEVEL	
Rate of climb/combat altitude	fpm/ft.	2720/1500	2700/1500	3140/SEA LEVEL	2970/SEA LEVEL	
Combat ceiling (500 fpm)	ft.	27,200	27,100	29,950	28,800	
Rate of climb at S.L.	fpm.	2750	2730	3140	2970	
Max. speed at S.L.	kn.	358	358	360	359	
Max. speed/altitude	kn./ft.	395/12,300	394/12,200	397/14,700	396/13,500	
LANDING WEIGHT	lb.	79,907	80,959	73,823	74,173	75,013
Fuel	lb.	4,277	4,228	3,898	4,248	4,405
Stall speed—power-off/approach power	kn./kn.	86/80	87/81	83/77	84/77	84/78
Landing distance—ground roll/over 50 ft. obst.	ft./ft.	1470/2170	1500/2200	1360/2020	1370/2030	1380/2050

## NOTES

PERFORMANCE BASIS: Calculated data based on flight test of T56-A-14 engines.

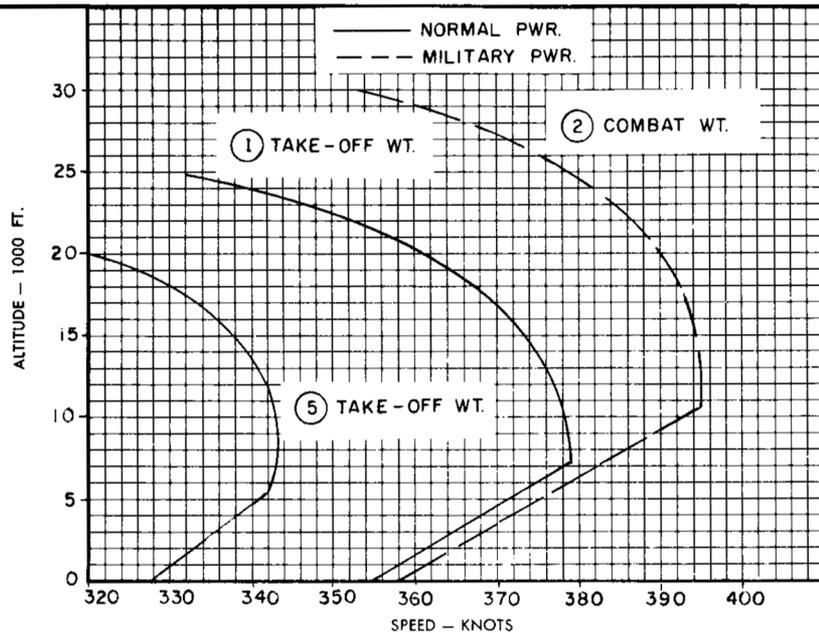
RANGE AND/OR RADIUS: Based on calculated fuel consumption data increased by 5 percent in accordance with MIL-C-5011A.

(A) TAKE-OFF RATED POWER

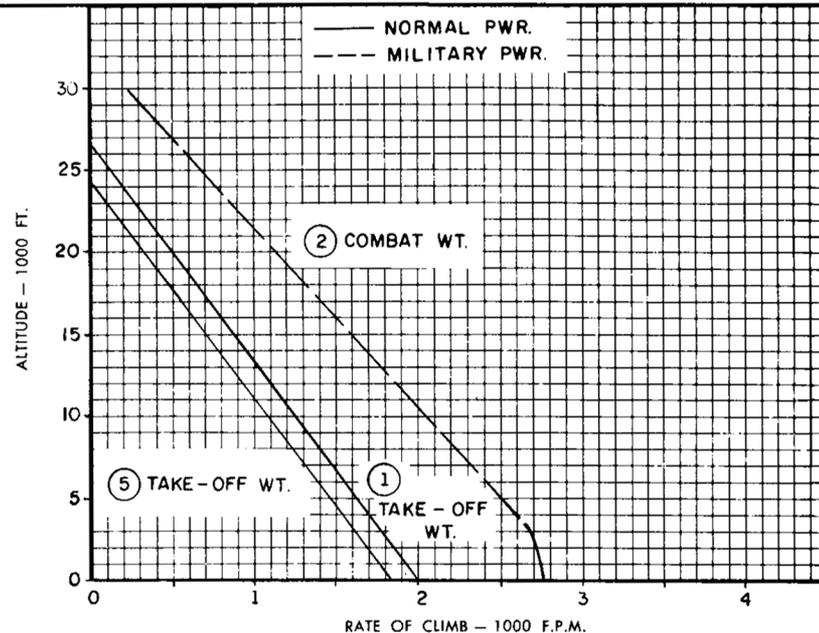
(B) NORMAL RATED POWER

(C) 8 MK-36 MINES MOUNTED EXTERNALLY

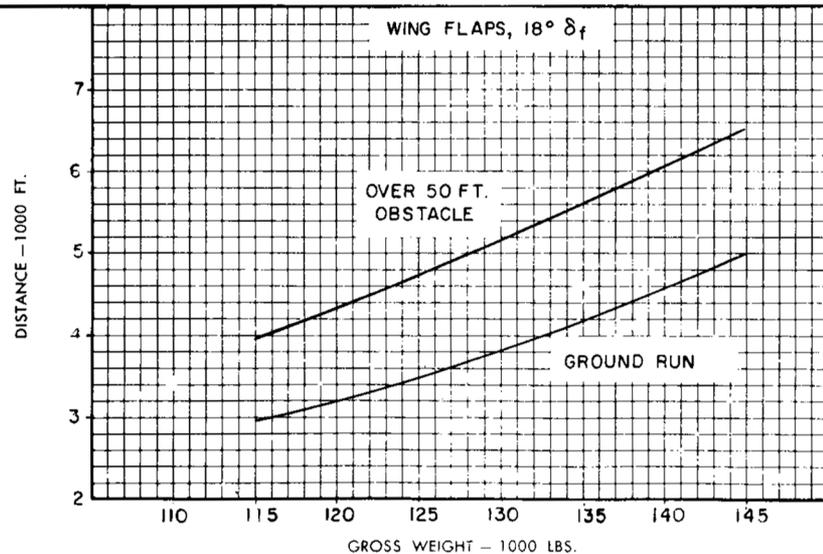
### SPEED



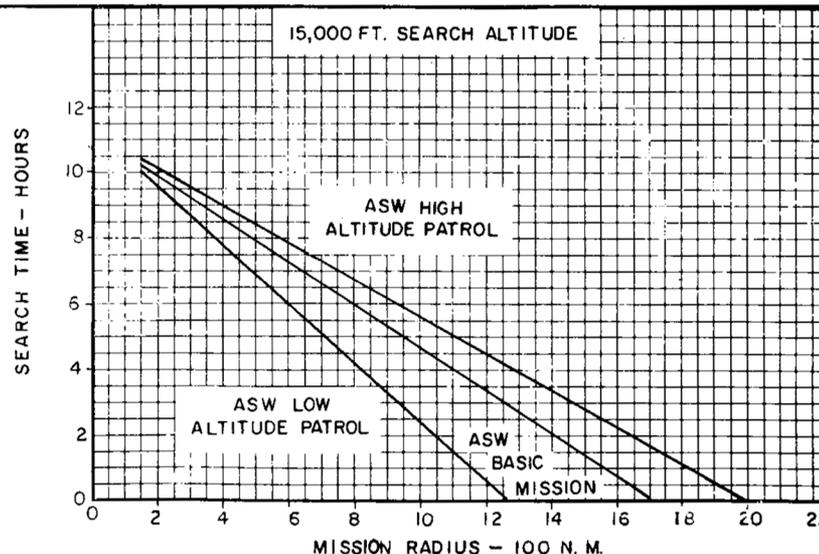
### CLIMB



### TAKE-OFF



### SEARCH TIME



○ LOADING CONDITION COLUMN NUMBER

**MISSION SUMMARY — ALTERNATE LOADINGS**

		BASIC MISSION		LOW ALTITUDE PATROL		HIGH ALTITUDE PATROL		CONTACT INVESTIGATION		MINELAYING	
STORE LOADING	T.O.G.W.	COMBAT RADIUS n. mi.	MISSION TIME hr.								
① BASIC 6 MK-46 INTERNAL NO EXTERNAL STORES	135,000	1265	12.0	1160	10.2	1460	12.6	555	11.4	-	-
⑪ MINELAYER MISSION 7 MK-25 6 MK-25 EXTERNAL	135,000	-	-	-	-	-	-	-	-	1390	9.8
⑫ MAXIMUM 8 MK-46 INTERNAL 10 MK-46 EXTERNAL	135,000	1010	10.3	-	-	-	-	-	-	-	-
⑬ 16 MK-50 MINES 6 MK-50U INTERNAL 10 MK-50F EXTERNAL	135,000	-	-	-	-	-	-	-	-	1640	11.0
○											
○											
○											
○											
○											
○											

**NOTES**

STORE LOADING <sup>(A)</sup>

WING STATION NO.	9 & 18	10 & 17	11 & 16	12 & 15	13 & 14	INTERNAL	
MINES	(1) MK-50 (1) MK-53 - - - - -	(1) MK-50 (1) MK-53 (1) MK-36 (1) MK-52 - - -	(1) MK-50 (1) MK-53 (1) MK-36 (1) MK-52 (1) MK-25 (1) MK-39 (1) MK-55 (1) MK-56	(1) MK-50 (1) MK-53 (1) MK-36 (1) MK-52 (1) MK-25 (1) MK-39 (1) MK-55 (1) MK-56	(1) MK-50 (1) MK-53 (1) MK-36 (1) MK-52 (1) MK-25 (1) MK-39 (1) MK-55 (1) MK-56	(6) MK-50 (6) MK-53 (3) MK-36 (3) MK-52 (1) MK-25 (1) MK-39 (1) MK-55 (1) MK-56 (8) MK-41 (Practice Mines)	
TORPEDOES (B)	(1) MK-44 (1) MK-46	(1) MK-44 (1) MK-46	(1) MK-44 (1) MK-46	(1) MK-44 (1) MK-46	(1) MK-44 (1) MK-46	(8) MK-44 (8) MK-46	
ROCKETS/MISSILES	(1) 2.75" FFAR (4) 5.00" FFAR (1) AGM-12B/ AGM-12B-3	(1) 2.75" FFAR (4) 5.00" FFAR (1) AGM-12B/ AGM-12B-3	- - -	- - -	- - -	- - -	
DEPTH BOMBS	- - -	- - -	- - -	- - -	- - -	(4) MK-54-1 (3) MK-57	
PARACHUTE FLARES (C)	(1) MK-5 (1) MK-6 (1) MK-24 (6) MK-5 (6) MK-6 (6) MK-24	(1) MK-5 (1) MK-6 (1) MK-24 (6) MK-5 (6) MK-6 (6) MK-24	(1) MK-5 (1) MK-6 (1) MK-24 - - -	(1) MK-5 (1) MK-6 (1) MK-24 - - -	(1) MK-5 (1) MK-6 (1) MK-24 - - -	- - - - - -	
ROCKET LAUNCH (D)	(1) LAU 10/A (1) LAU 10A/A (1) AERO 6A (1) AERO 7D (1) LAU 3A/A (1) LAU 32A/A (1) LAU 69/A						

NOTES:

SEE NEXT PAGE FOR NOTES (A) THRU (D).

## STORE LOADING

WING STATION NO.	9 & 18	10 & 17	11 & 16	12 & 15	13 & 14	INTERNAL	
BOMBS AND PRACTICE BOMBS	- - - - - - - - - A/A37B-3 PMBR with MK-76 or MK-106 Practice Bombs	- - - - - - - - - A/A37B-3 PMBR with MK-76 or MK-106 Practice Bombs	- - - - - - - - - A/37B-3 PMBR with MK-76 or MK-106 Practice Bombs	- - - - - - - - - A/A37B PMBR with MK-76 or MK-106 Practice Bombs	- - - - - - - - - A/A37B-3 PMBR with MK-76 or MK-106 Practice Bombs	(8) AN-M30A1 (8) AN-M57A1 (4) AN-M64A1 (8) MK-81 (8) MK-82 (8) MK-86 (8) MK-87 (8) MK-15 (4) MK-23 -	
MISCELLANEOUS	-	-	-	-	(1) Starter Pod GTC 85-15	-	
<p><u>NOTES:</u> (A) Only individual station maximum capabilities are listed. Combinations of stores could result in interference between stores. Refer to NAVAIR 01-75PAA-1, NAVAIR 01-75PAA-75 and NAVAIR 01-75PAA-13 for additional information.</p> <p>(B) All externally carried torpedoes are for ferry only. No tactical drops, no arming wires or lanyards attached.</p> <p>(C) 6 MK-5, MK-6 or MK-24 Parachute Flares are mounted on the A/A37B-3 PMBR or A/A37B-1 MBR.</p> <p>(D) Not a complete list. Refer to publications called out in (A) above for additional data.</p>							

## SERVICE

## NOTES

ASW PROBLEM

(Basic Mission)

WARM-UP, TAXI, TAKE-OFF: 5 minutes with normal power at sea level

CLIMB: With normal power to 15,000 feet

CRUISE-OUT: At 15,000 feet at the speed for maximum range.

DESCEND: To 1500 feet - No fuel is used; No distance is gained

SEARCH: At 1500 feet for 3 hours at the speed for maximum (L/D).

CLIMB: With normal power to 15,000 feet.

CRUISE-IN: At 15,000 feet at the speed for maximum range.

RESERVE: 5% of the initial fuel load plus an amount corresponding to 20 minutes of flight at maximum (L/D) at sea level.

ASW PROBLEM

(Low Altitude Patrol)

WARM-UP, TAXI, TAKE-OFF: 5 minutes with normal power at sea level

CLIMB: With normal power to 1,500 feet

CRUISE OUT: At 1,500 feet at the speed for maximum range.

SEARCH: At 1,500 feet for 1 hour at the speed for maximum (L/D)

CRUISE-IN: At 1,500 feet at the speed for maximum range.

RESERVE: 5% of the initial fuel load plus an amount corresponding to 20 minutes of flight at maximum (L/D) at sea level.

ASW PROBLEM

(High Altitude Patrol)

WARM-UP, TAXI, TAKE-OFF: 5 minutes with normal power at sea level

CLIMB: With normal power to cruise ceiling

CRUISE-OUT: Cruise-climb to 25,000 feet. Then, speed for maximum range at 25,000 feet.

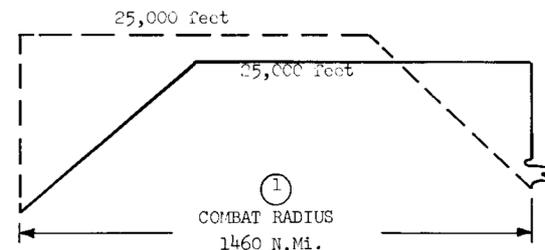
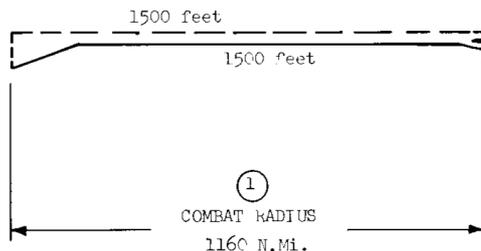
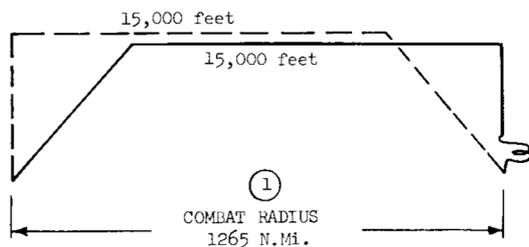
DESCEND: To 1,500 feet - No fuel is used; no distance is gained.

SEARCH: At 1,500 feet for 3 hours at the speed for maximum (L/D).

CLIMB: With normal power to 25,000 feet.

CRUISE-IN: At 25,000 feet at the speed for maximum range

RESERVE: 5% of the initial fuel load plus an amount corresponding to 20 minutes of flight at maximum (L/D) at sea level.



○ LOADING CONDITION COLUMN NUMBER

## NOTES

ASW PROBLEM

(Contact Investigation)

WARM-UP, TAXI, TAKE-OFF: 5 minutes with normal power at sea level

CLIMB: With normal power to 15,000 feet

CRUISE-OUT: At 15,000 feet at normal rated power

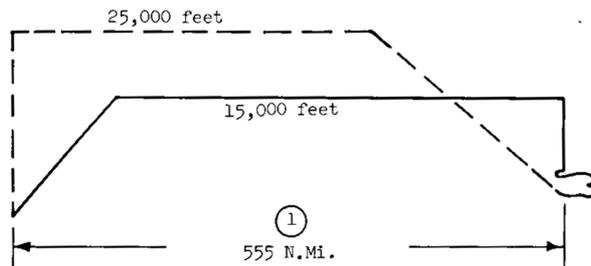
DESCEND: To 1500 feet - No fuel is used; no distance is gained

SEARCH: At 1500 feet for 8 hours at the speed for maximum (L/D)

CLIMB: With normal power to 25,000 feet

CRUISE-IN: At 25,000 feet at the speed for maximum range

RESERVE: 5% of the initial fuel load plus an amount corresponding to 20 minutes of flight at maximum (L/D) at sea level.

MINELAYER PROBLEM

(Minelaying Mission)

WARM-UP, TAXI, TAKE-OFF: 5 minutes with normal power at sea level

CLIMB: With normal power to cruise ceiling

CRUISE-CLIMB: At cruise ceiling at the speed for maximum range.

DESCEND: To 1500 feet - no fuel is used; no distance is gained

PENETRATION: Cruise 200 nautical miles at 1500 feet at the speed for maximum range

DESCEND: To sea level - no fuel is used; no distance is gained

ATTACK: With military power 50 nautical miles at sea level

RELEASE MINES:

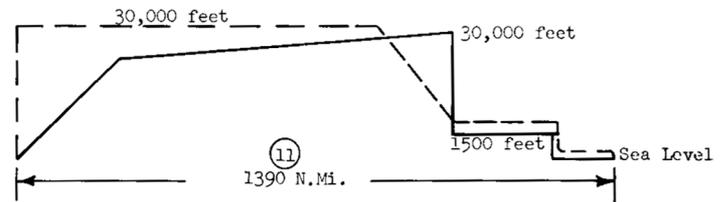
ESCAPE: With military power 50 nautical miles at sea level

CLIMB: With normal power to 1500 feet.

AREA DEPARTURE: Cruise 200 nautical miles at 1500 feet at the speed for maximum range

CLIMB: With normal power to 30,000 feet

CRUISE-BACK: At 30,000 feet at the speed for maximum range



○ LOADING CONDITION COLUMN NUMBER

## NOTES

## ELECTRONICS (CONTD.)

Non-Acoustical Sensor/Data

Radar.....	AN/APS-115
ECM Set.....	AN/ALQ-78*
MAD.....	AN/ASQ-10A
Magnetic Compensator.....	AN/ASA-65
SAD (Sub-Anomaly Group).....	AN/ASA-64
Tele. Camera Set.....	AN/AXR-13*
Rad. Therm.....	AN/ARR-31

Acoustic Sensor/Data

Sonobuoy Rec. Sys.....	AN/ARR-72
DIFAR.....	AN/AQA-7(XN)
DIFAR.....	AN/AQA-7(V)
Recorder.....	AN/ASA-20B
Bathymograph.....	AN/SSQ-36
Sono Recorder.....	AN/AQH-2(V)
Hyperbolic Fix Meas. Unit.....	

Data Processing/Display

Avionics Unit Computer.....	AN/ASQ-114(v)
Data Analy. Prog. Group (DFS)...	AN/AYA-8
Tact Display Group (MPD,ARO)....	AN/ASA-70
Tact. Display.....	AN/ASA-66
Signal Data Converter.....	CV-2461/A
Radar Scan Conv.....	AN/ASA-69
Time Code Generator.....	TD-900/AS

\* Weight and space provisions only.



LOADING CONDITION COLUMN NUMBER