

STANDARD AIRCRAFT CHARACTERISTICS
PBY-6A "CATALINA"

MISSION AND DESCRIPTION

The Model PBV-6A airplane was designed for use as a patrol airplane, bomber or torpedo airplane. It is also suitable for search and rescue operations and was extensively used for this purpose during the war.

The hull is divided into five main watertight compartments by four bulkheads equipped with watertight doors.

The wing is mounted on a superstructure built up from the hull and incorporates the engine nacelles, fuel and oil tanks and two retractable auxiliary floats. Thermal anti-icing is incorporated in the leading edges of the wing and tail group.

The airplane has no landing flaps or other high-lift devices but due to the relatively low wing loading it has a stalling speed of only 65 knots at maximum gross weight with floats and gear down.

The airplane normally carries a crew of eight.

DIMENSIONS

SPAN.....104'-0"
 LENGTH.....62'-11"
 HEIGHT.....22'-5"
 WING AREA.....1400 sq. ft.
 M.A.C.....165.3"
 TREAD.....16'-9"

WEIGHTS

Loadings	Lbs.	L.F.
EMPTY.....	21480.....	
BASIC.....	23388.....	
DESIGN.....	27300.....	3.0
MAX. T.O....	36400.....	2.1
MAX. LAND...	34500.....	

FUEL AND OIL

Gals. - No. Tanks - Location
 603.....5..Wing(protected)
 875.....1..Wing
 300.....2..Wing (drop)
 FUEL GRADE....100/130
 FUEL SPEC.....AN-F-48

OIL

CAPACITY (Gals.).....130
 SPEC.....AN-O-8
 GRADE.....1100-1120

ELECTRONICS

COMMAND.....AN/ARC-5
 LIAISON.....AN/ARC-5
 LORAN.....AN/APN-4
 COMPASS.....SCR-269-F
 ALTIMETER.....AN/APN-1
 MARKER BEACON.....AN/ARN-8
 IFF.....AN/APX-2
 SEARCH.....AN/APS-3
 BTO.....AN/APA-16

POWER PLANT

NO. & MODEL.....(2) R-1830-92
 MFR.....P. & W.
 SUPERCH.....1 Stage, 1 Speed
 PROP.GEAR RATIO.....16:9
 PROP.MFR.....Ham. Std.
 PROP.DES.NO.....6353A-12
 NO.BL./DIA.....3/12'-1"

RATINGS

	Bhp. @ Rpm.	@ Alt.
T.O.	1200	2700 SL
NORMAL	1050	2550 7500

SEE NOTE

SPEC NO. N-5098-A

ORDNANCE

No.	Size	GUNS	
		Location	Rds.
2	.30 Cal.	Nose	2100
2	.50 Cal.	Waist	1156

MK 9 sight nose and waist guns

BOMBS

Type	Size	Location	No.
Bomb	1000#	Wing	4
Bomb	500#	Wing	4
Bomb	100#	Wing	12
Torp.	MK13-3	Wing	2
D.B.	325#	Wing	8



PERFORMANCE SUMMARY				
LOADING CONDITION		(1) A.S.Patrol 4-325#	(2) Patrol 4-1000#	(3) Search Two Tanks
TAKE-OFF WEIGHT		35860	36400	36300
Fuel	lbs	8778	6756	10578
Bombs	lbs	1300	4000	None
	lbs			
Wing/Power Loading (A)	lbs/so.ft.lbs/ bhp	25.6/17.1	26/17.3	25.9/17.2
Stall Speed--Power off	kn	68.3 (70.4)	68.8 (71)	68.7 (70.9)
Stall Speed--Power off - No Fuel	kn	59.4 (62)	62.1 (63.8)	57.8 (59.6)
Stall Speed--Power on	kn	65.6 (65.6)	66.1 (66)	66.0 (66)
Maximum Speed/Alt (B)	kn/ft	150/4800	150/4800	152/4800
Take-off Distance, deck-- calm	ft	965	980	970
Take-off Time	secs	77	88	86
Take-off Distance, Airport	ft	2670	2740	2710
Rate of climb -- sea level (B)	ft/min	540	560	530
Service Ceiling	(B) ft	14,100	13,600	13,900
Time-to-climb 10000 ft. (B)	min	24.4	25.7	25.2
Time-to-climb ft. (B)	min			
Combat Range/V av 1500	ft. n.mi/kn	1705/102	1250/104	2075/104
Combat Radius/V av	ft. n.mi/kn	682/102	500/104	830/104
LOADING CONDITION				
GROSS WEIGHT	lbs			
Engine power				
Fuel	lbs			
Bombs/Tanks				
Max. speed at sea level	kn			
Max. speed	ft. kn			
Combat speed/Alt.	kn/ft			
Rate of climb SL	ft/min			
Ceiling for 500 fpm R/C	ft			
Time-tc-climb/Alt.	min/ft			

NOTES

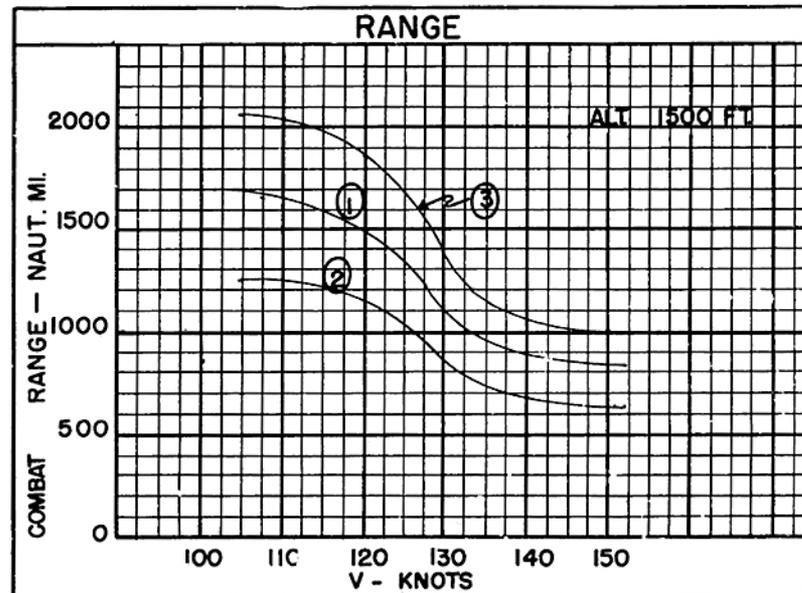
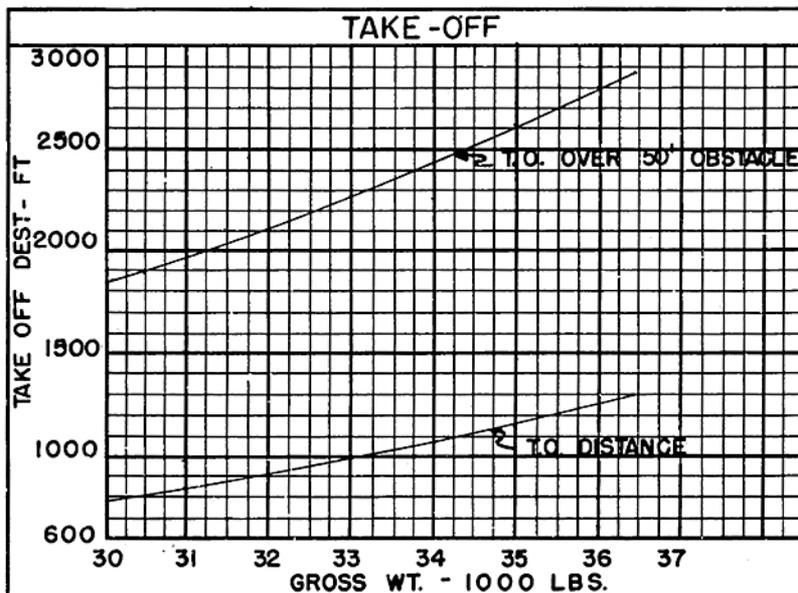
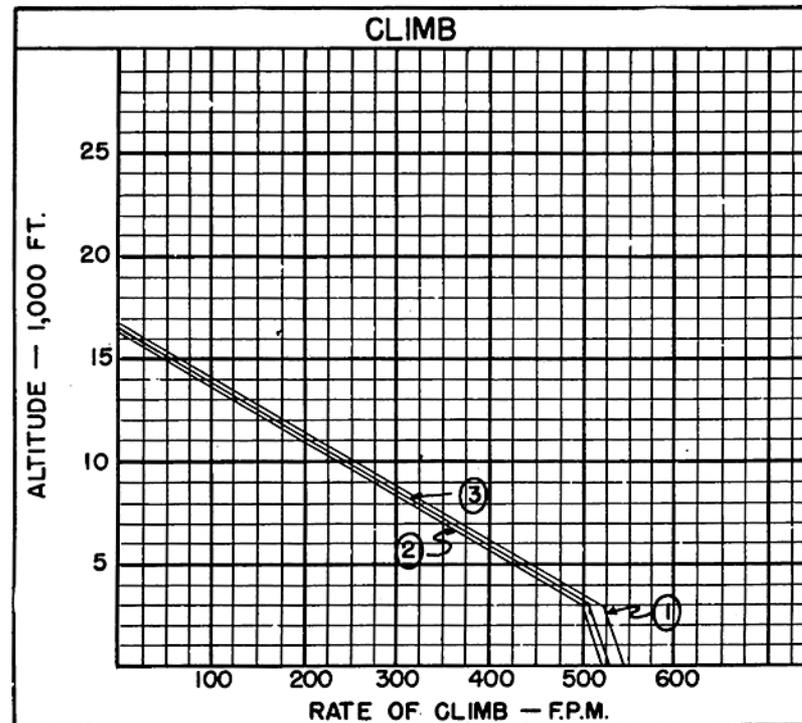
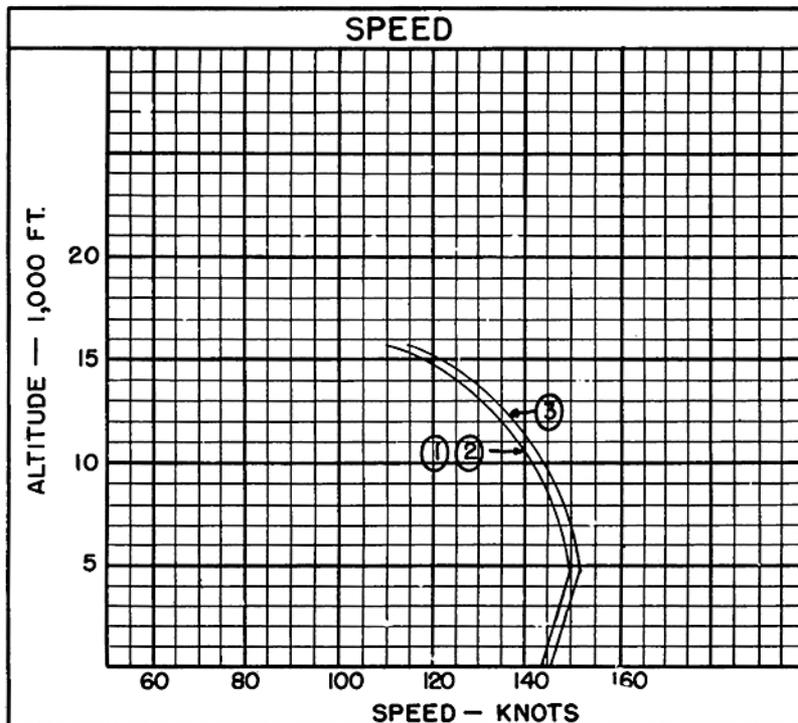
- (A) BHP at Maximum Critical Altitude
(B) Normal BHP

Performance is based on flight test.

Range and radius are based on flight test fuel consumption increased 5 per cent.

 Figures in parenthesis represent seaplane condition.

NOTES CONTINUED ON LAST PAGE



○ LOADING CONDITION COLUMN NUMBER

NOTES

AN/APS-3 radar aboard in all conditions.

Combat radius is .4 maximum combat range at 1500 ft.

Engine ratings from Flight Test:

	<u>Bhp.</u>	<u>Rpm.</u>	<u>Alt.</u>
T.O.	1200	2700	S.L.
Norm.	1050	2550	3000