

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER		1	2	3	4
LOADING CONDITION		COMBAT * (No radar)	COMBAT * (No radar)	BOMBER 1-1000# One Tank External	TORPEDO 1 Mk 13-3
GROSS WEIGHT	LBS.	14961	14961	17201	17234
EMPTY WEIGHT	- Estimated - LBS.	11826			
FUEL/OIL	GALS.	350/20	350/20	500/20	350/20
FIXED GUNS/AMMUNITION		2-20 mm/400			
FLEXIBLE GUNS/AMMUNITION		None			
ENGINE POWER USED FOR PERFORMANCE		Military	Normal	Normal	Normal
WING LOADING	LBS./SQ.FT.	37.4	37.4	43.0	43.1
POWER LOADING ①	LBS./BHP.	7.9	8.3	9.6	9.6
V-MAX. SEA LEVEL	MPH.	338	317	281	290
V-MAX. AIRPLANE CRIT. ALT.	MPH.	364/17300	357/17400	308/16800	322/17000
V-STALL GROSS WEIGHT ②	MPH.	79.9	79.9	85.6	85.7
V-STALL WITHOUT FUEL ②	MPH.	74.0	74.0	80.5	80.4
TIME-TO-CLIMB -10000FT-	MIN.	4.4	5.3	6.9	6.9
TIME-TO-CLIMB -20000FT-	MIN.	10.9	12.2	16.9	16.7
SERVICE CEILING	FT.	29800	28800	25800	26300
TAKE-OFF DISTANCE -CALM-	FT.	567	567	830	815
TAKE-OFF DISTANCE -15 KN-	FT.	362	362	548	538
TAKE-OFF DISTANCE -25 KN-	FT.	250	250	388	382
TAKE-OFF TIME	SECONDS				
RATE OF CLIMB -SL-	FT./MIN.	2640	2110	1660	1660
MAX. RANGE /V-AV. ③	STMI/MPH.		1280/167	1450/159	1025/163
BOMBING RADIUS/V-AV -20%R-	NMI/KN.				
BOMBING RADIUS/V-AV -33%R-	NMI/KN.				
PATROL RADIUS/V-AV -20%R-	NMI/KN.				
PATROL RADIUS/V-AV -33%R-	NMI/KN.				
SCOUT RADIUS	N MI.		300**		
COMBAT RADIUS	N MI.			405	205
ENGINE / PROP GEAR RATIO		W.A.C. R-3350-24(16.7)			
ENGINE RATING BHP/RPM/ALT.	MILITARY	NORMAL		TAKE-OFF	
	2500/2800/SL-3500'	2100/2400/SL-5500'		2500/2900	
	1900/2600/11000-14900'	1800/2400/9700-15000'			
TANKAGE IN GALLONS		OIL	FUEL	OFFENSIVE ARMAMENT	
AUX. FIXED	PROTECTED		350	Fuselage (External) -	
	UNPROTECTED	28		BOMBS: 1-2000#, 1-1600#, 1-1000# or 1-500#	
	TOTAL - FIXED INTERNAL	28	350	Depth Bombs: 1-650# or 1-325#	
	DROPPABLE			Mines: 1-2000# or 1-1000#	
	DROPPABLE Port Wing - (Alternate with bombs)		150	Torpedoes: 1 Mk 13-3	
TOTAL	28	500	WINGS: (External) -		
NOTE	STATUTE MILES USED-EXCEPT-RADIUS IS GIVEN IN NAUTICAL MILES & KNOTS		BOMBS: 2-1000#, or 2-500#		
	① BHP AT MAX. CRIT. ALT.		Depth Bombs: 2-650# or 2-325#		
	② STALL-WITHOUT POWER		Note: Two wing bomb-racks available for either bombs, dropp. tank (portwing only) or AN/APS-4 radar (stbd. wing only)		
③ AT 1500' ALTITUDE		**** See page 2			

PRELIMINARY

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

* Columns 1 & 2 - These conditions are representative of the airplane of column three at the combat radius in the cleanest, ready for combat condition, with cruise-out fuel consumed, and with bombs and AN/APS-4 radar dropped. Faired in bomb-racks are retained after droppable tank and radar is dropped.

PRACTICAL COMBAT RADIUS (Columns 3 & 4) is based on 20 min. warm-up and idling; one min. take-off; 20 min. rendezvous at 60% normal sea-level power (n.s.p.) and auto-lean, climb to 15000 ft. at 60% n.s.p. and auto-lean; cruise-out at 15000 ft. at 180 knots true airspeed and auto-lean; drop unprotected droppable tanks; dive; drop bombs or torpedoes; combat at 1500 ft. for 5 min. at military power plus 10 min. at normal rated power; cruise-back at 1500 ft. at 170 knots true air speed and auto-lean; 60 min. at V for max. range and auto-lean as allowance for rendezvous, landing, and reserve.

PRACTICAL SCOUT RADIUS (Column 2) is 1/3 of range at V for max. range at 1500 ft. with fuel taken from initial fuel load for 20 min. warm-up and idling, and 1 min. take-off and with allowance at end of flight for 60 min. at V for max. range for rendezvous, landing and reserve.

Practical scout radius is reduced 7 nautical miles for each min. of combat at 1500 ft. at full military power.

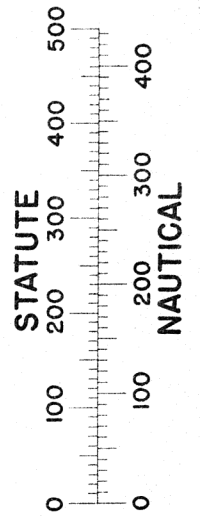
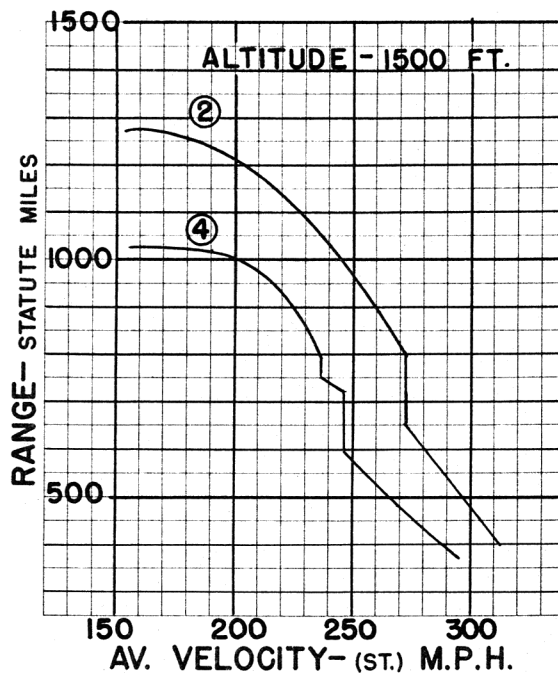
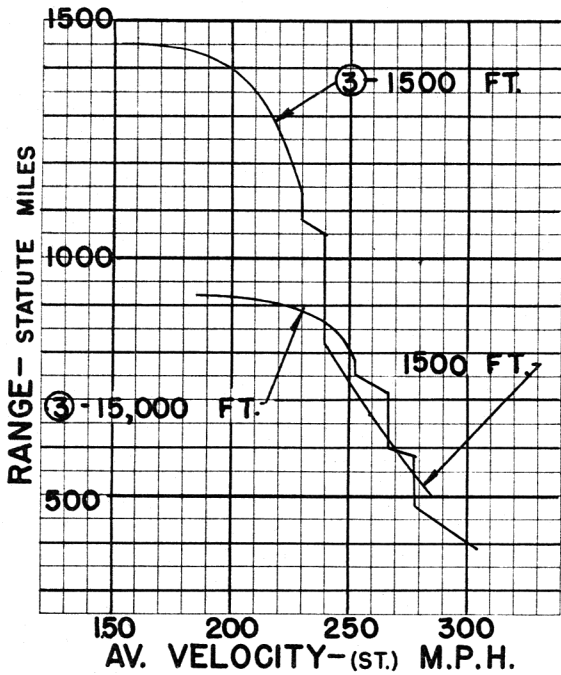
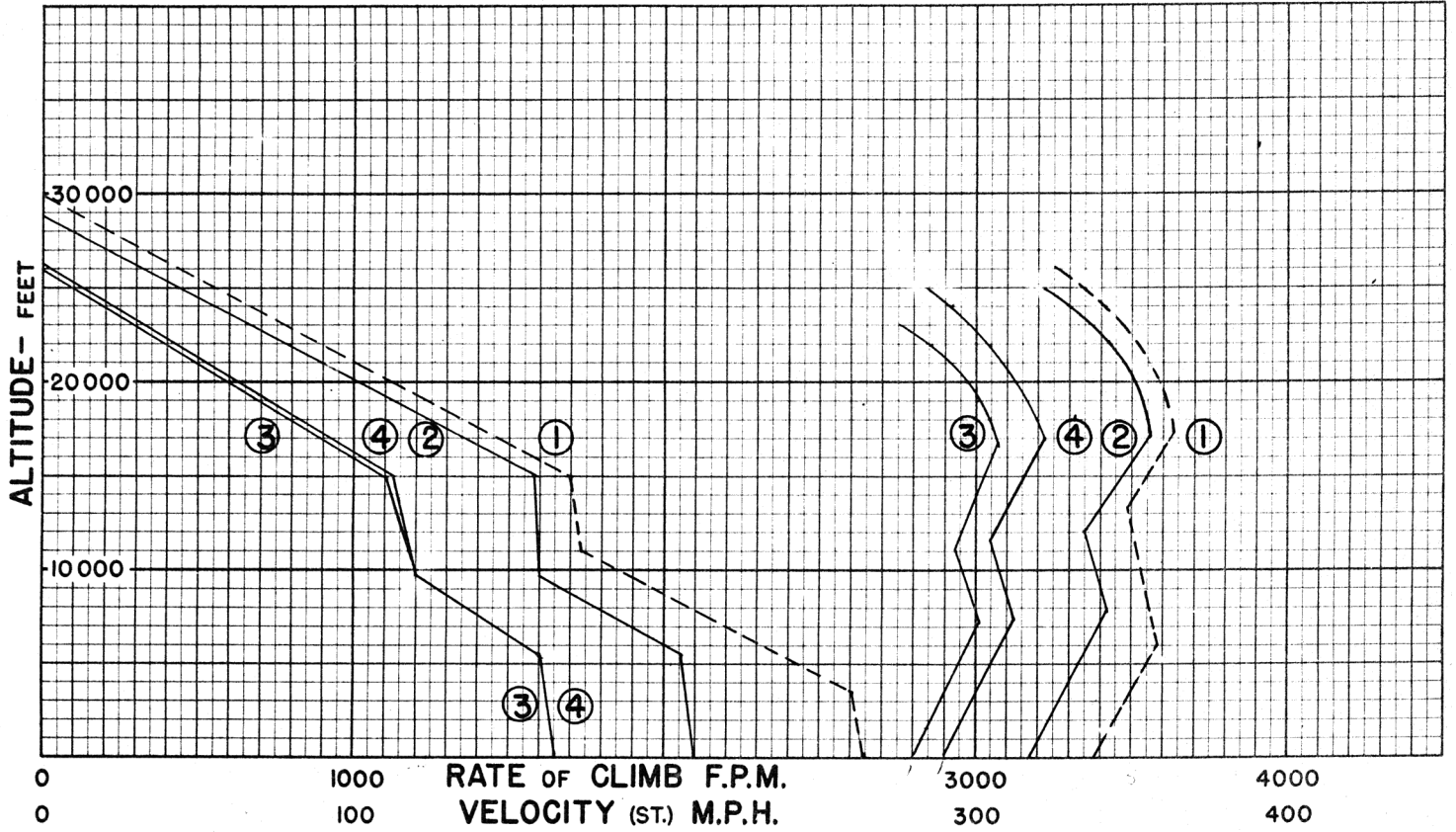
** This radius has been calculated incorporating the effect of carrying AN/APS-4 the entire distance. All other performance in columns 1 and 2 do not include the effect of radar.

Performance is based calculations. Range and Radius is based Engine Requirement Fuel Consumption Data increased by 15% to conform with past experience.

CHARACTERISTICS

Wing Area	400 sq. ft.	Length	39' - 8"
Section	NACA 2417 - 4413	Height	15' - 10"
M. A. C.	8.34 ft.	Span folded	24' - 0"
Span	50' - 0"		
Propeller - Aeroproduct	13' - 6" diam., 4 blade, des. V20P-162-OM5		

PRELIMINARY



○ LOADING CONDITION COLUMN NUMBER

PRELIMINARY