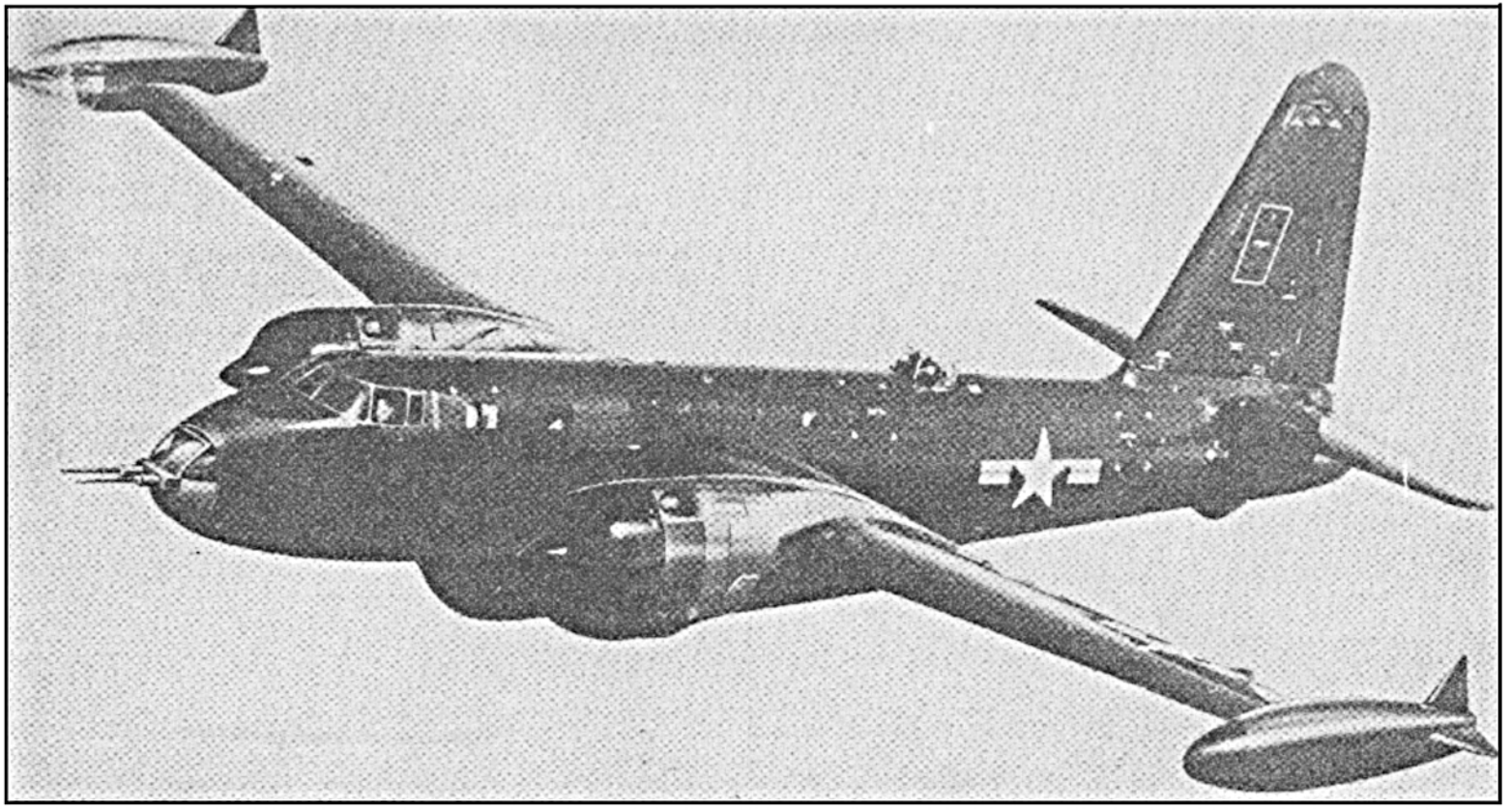
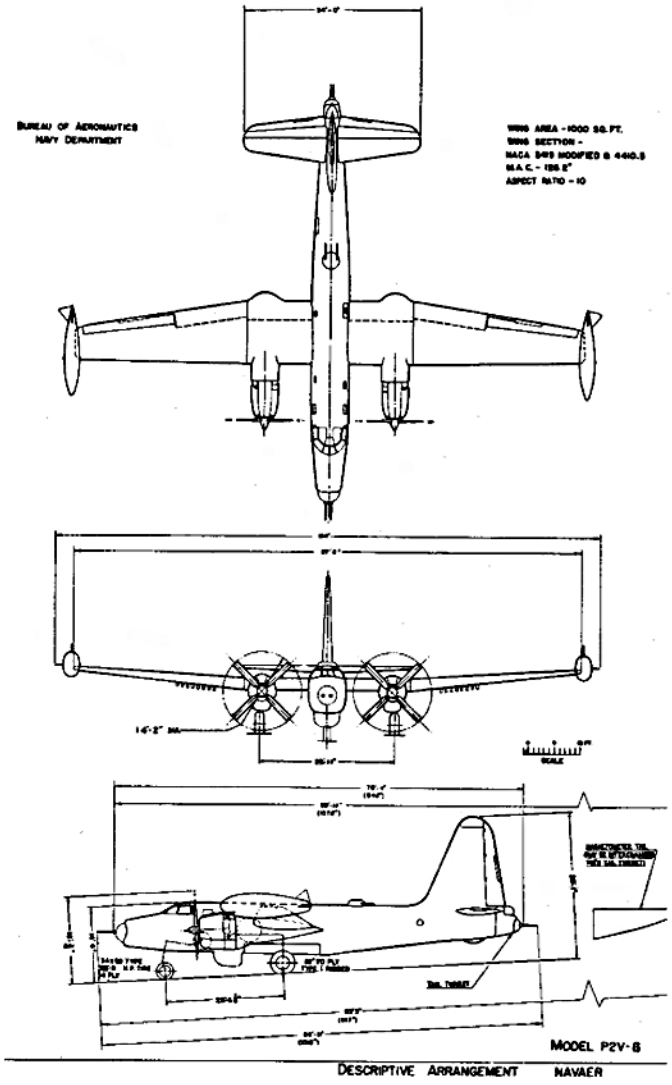


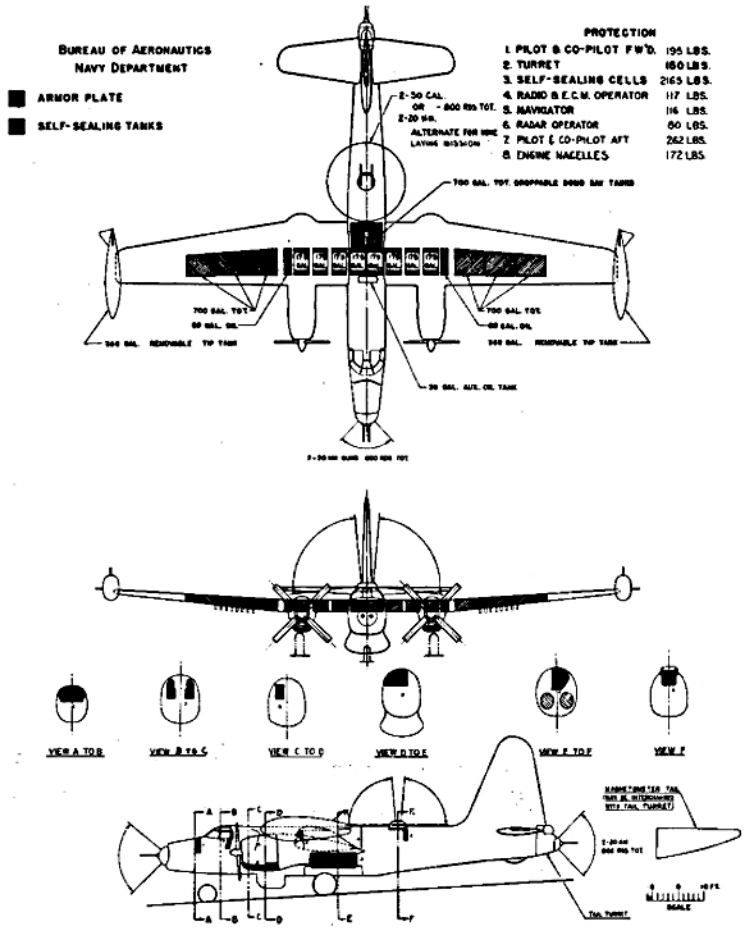
STANDARD AIRCRAFT CHARACTERISTICS

P2V-6 "NEPTUNE"

LOCKHEED

Standard Aircraft Characteristics NAVAER 1335A (REV. 1-49)





Standard Aircraft Characteristics NAVAER 1335B (REV. 1-49)

POWER PLANT

NO. & MODEL..(2) R-3350-30WA
MFR.....Wright
SUPERCH.....1 Stage, 2 Speed
RED. GEAR RATIO.....0.4775
PROP MFR.....Ham. Std.
PROP. BL. DES. NO:2J17C3-36S
NO. BL./DIA.....4/14' - 2"

RATINGS

	BHP @	RPM @	ALT
T.O.	3500	2900	S.L.
MIL.	3250	2900	S.L. to 3400'
	2550	2600	11400' to 15400'
NORM.	2600	2600	S.L. to 6500'
	2450	2600	9600' to 16600'

SPEC. NO. - N856-A

ELECTRONICS

RCM Pulse Analyzer..AN/APA-64B
VHF Comm. Equip.....AN/ARC-1
Trans. Rec.....RT-82/APX-6
Pulse Analyzer.....AN/APA-11
Interphone.....AN/AIC-5B
Radio Trans.....AN/ART-13
Comm. Rec.....R23A/ARC-5
Liaison Rec.....AN/ARR-15A
UHF.....AN/ARC-27
Direct Finder.....AN/ARN-6
Radio Altimeter.....AN/APN-1
Marker Beacon.....AN/ARN-12
Loran.....AN/APN-4
RCM.....AN/APR-9B
RCM - Dir. Find....AN/APA-69A
Search Radar.....AN/APS-33B
Sonobuoy Rec.....AN/ARR-26
M.A.D.....AN/ASQ-8
Ground Pos. Ind....AN/APA-57B
Omni-Range Rec.....AN/ARN-14A
Indicator.....AN/APA-91

MISSION AND DESCRIPTION

The P2V-6 is designed for use as a day and night land based, long range mine laying airplane. Its secondary tactical missions are anti-submarine, rocket attack, night torpedo attack, and photo reconnaissance.

The P2V-6 was developed from the P2V-5 (R-3350-30W) and differs from the P2V-5 by installation of the APS-33B which permits a longer bomb bay thereby allowing a more versatile selection of ordinance.

It has an all metal semi-monocoque fuselage with wings of conventional two span construction. It is an nine place, twin engine airplane with tricycle landing gear, modified Fowler flaps, varicam stabilizer, jettisonable wing tip nacelles, and thermal anti-icing. Design features permit underwing refueling.

DEVELOPMENT

First Flight . . . . . November 1952
Service Use . . . . . January 1953

DIMENSIONS

WING
AREA.....1,000 Sq. Ft.
SPAN.....104' - 0"
M.A.C.....10' - 6"
LENGTH.....84' - 10"
HEIGHT.....28' - 1"
TREAD.....25' - 11"
PROP. GRD. CLEARANCE 0'- 9"

WEIGHTS

LOADINGS	LBS.	L.F.
EMPTY	44383	
BASIC	47263	
DESIGN	67500	2.67
COMBAT	64477	2.79
MAX.T.O	80000	2.25
MAX. LANDING	62000	

All weights are actual.

FUEL AND OIL

GALS.	NO. TANKS	LOCATION
2800	4	Wing
700	2	Wing Tip
700	2	Bomb Bay

FUEL GRADE...115/145
FUEL SPEC:MIL-F-5572

OIL

CAPACITY (GALS.).....154
GRADE.....1100
SPEC.....MIL-L-6082A

ORDNANCE

GUNS

NO.	SIZE	LOCATION	RDS.
2	20mm	Nose	800
2	20mm	Tail	800
2	50 cal.	Deck	800

Mine Layer Only
FIRE CONTROL
Mk. 18 Mod. 6
BOMBS AND ROCKETS

RACKS	NO.	LOCATION	MAX. CAP.
Aero 14A	16	wing	500 lbs.

Torpedoes, Mines and Bombs also carried inside the fuselage.
MAX. LOAD CAPACITY 12,000 lbs.

PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION		(1) MINE LAYER 8 Mines		(4) ASW PATROL 4 Torpedoes		(6) FERRY Maximum Fuel
TAKE-OFF WEIGHT	lb.	80,000		78,588		77,500
Fuel	lb.	18,788		21,000		25,200
Payload	lb.	8,000		6,200		None
Wing loading	lb./sq.ft.	80.0		78.6		77.5
Stall speed - power-off	kn.	99.0		98.1		97.4
Take-off run at S.L. - calm (B)	ft.	3,520		3,350		3,250
Take-off run at S.L. kn. wind	ft.	- -		- -		- -
Take-off to clear 50 ft. - calm	ft.	4,800		4,600		4,350
Max. speed/altitude (A)	kn./ft.	259/17,500		268/17,500		262/17,500
Rate of climb at S.L. (A)	fpm	730		820		810
Time: S.L. to 10,000 ft. (A)	min.	15.6		13.7		14.0
Time: S.L. to 20,000 ft. (A)	min.	52.6		41.7		38.5
Service ceiling (100 fpm) (A)	ft.	19,400		20,400		20,400
Combat range	n.mi.	2,310		2,790		3,585
Average cruising speed	kn.	175		175		172
Cruising altitude(s)	ft.	1,500		1,500		1,500
Combat radius (See NOTE)	n.mi.	1,100		1,110		- -
Average cruising speed	kn.	170		175		- -
Mission time	hrs.	12.8				
COMBAT LOADING CONDITION		(2)	(3)	(5)		
COMBAT WEIGHT	lb.	64,477	64,477	63,998		
Engine power		Military	Normal	Military		
Fuel	lb.	11,270	11,270	12,600		
Combat speed/combat altitude	kn./ft.	263/1,500	246/1,500	269/1,500		
Rate of climb/combat altitude	fpm/ft.	1,630/1,500	1,150/1,500	1,700/1,500		
Combat ceiling (500 fpm)	ft.	20,200	20,200	20,700		
Rate of climb at S.L.	fpm	1,650	1,170	1,730		
Max. speed at S.L.	kn.	260	243	265		
Max. speed/altitude	kn./ft.	276/16,500	272/17,700	283/16,500		
LANDING WEIGHT	lb.	62,490		58,984		
Fuel	lb.	1,283		1,396		
Stall speed - power-off	kn.	87.5		85.0		
Stall speed - with approach power	kn.	79		77		

NOTES

Reason for reissue: Flight Test data on the P2V-6 airplane available.

(A) Normal rated thrust.

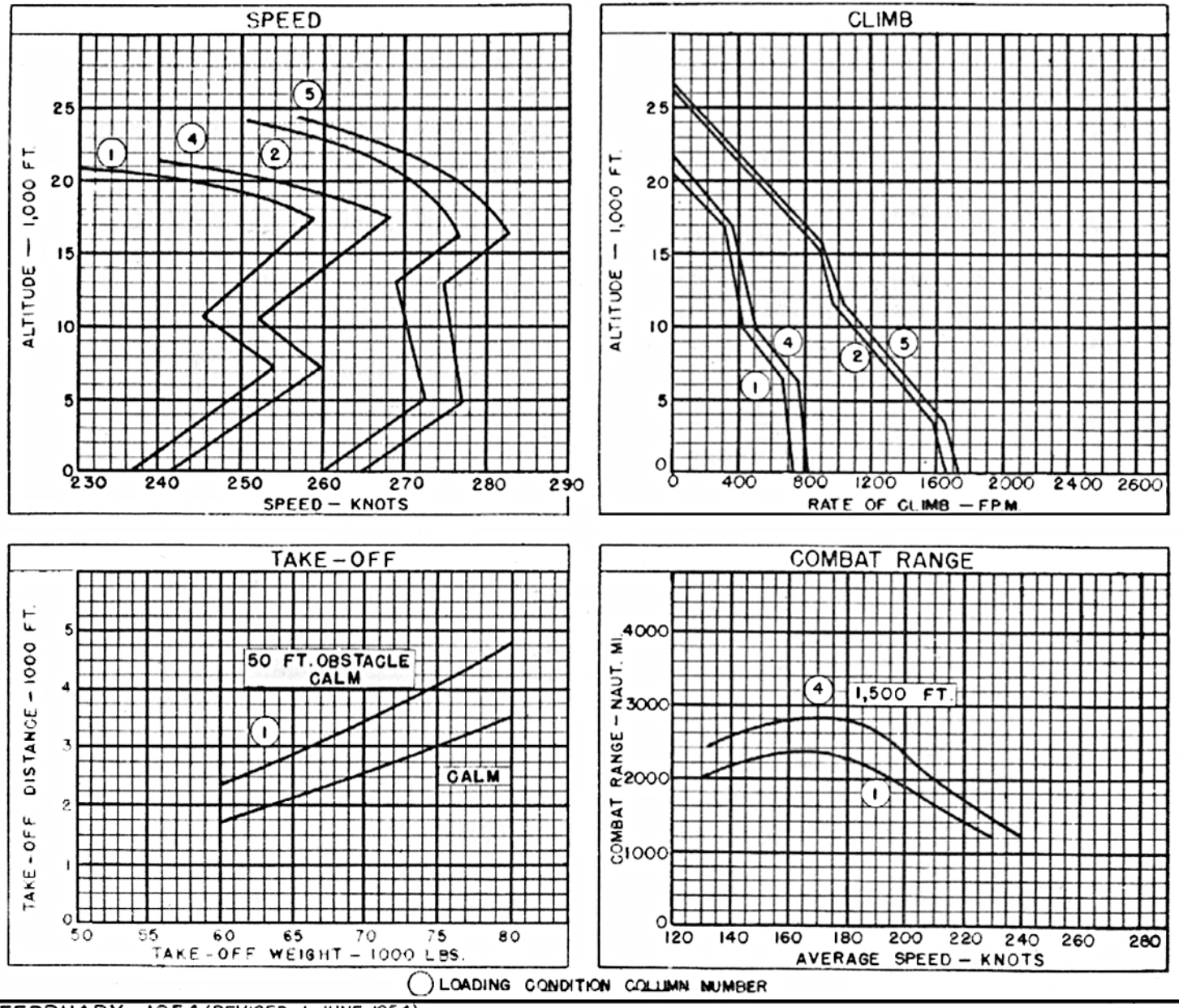
(B) Take-off rated thrust.

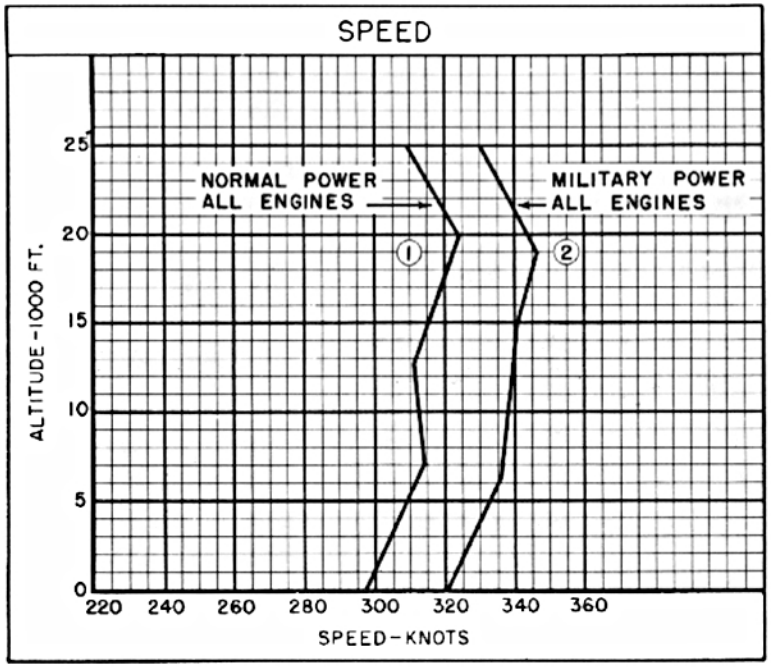
Performance basis: Calculations, Navy and contractor flight test data on the P2V-6 airplane.

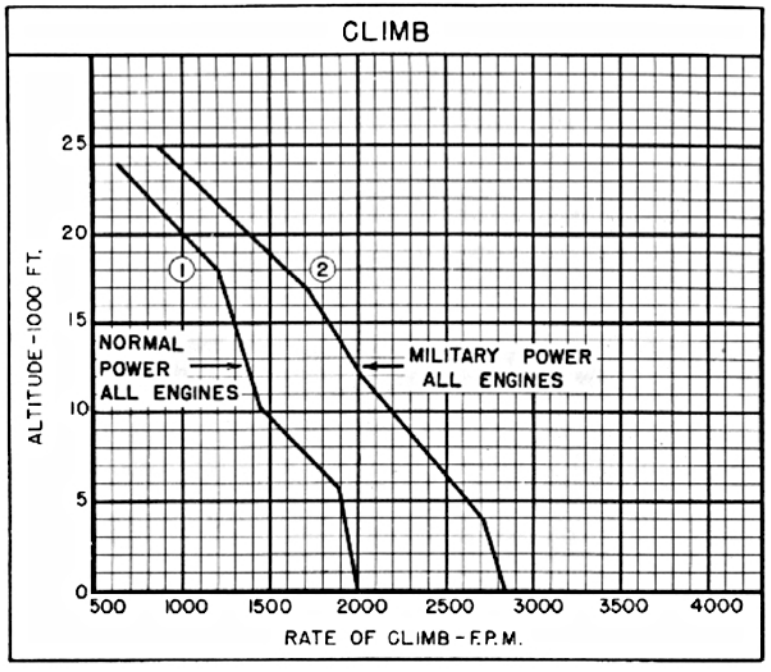
Combat range and radius are based on contractor P2V-5 flight test data increased by 5%.

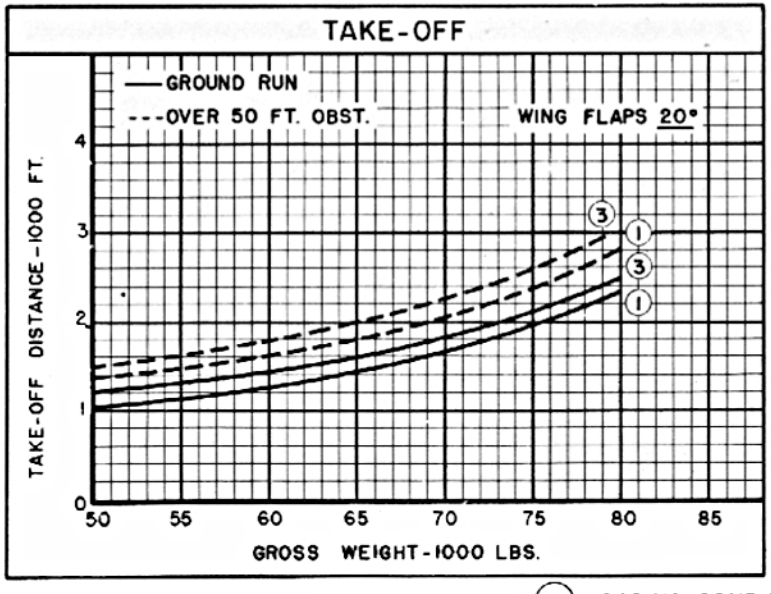
All of the configurations listed above include 16-14A rocket/bomb racks carried on the underside of the wing.

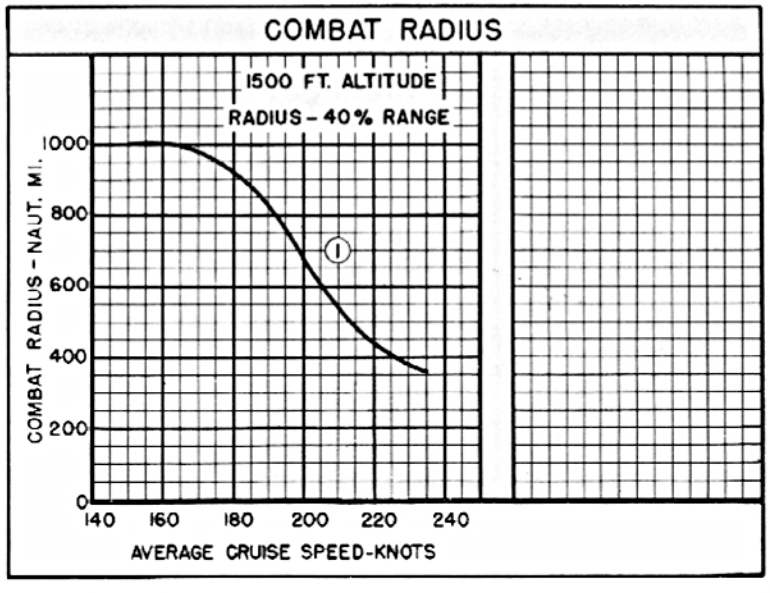
NAVAER-1335D (Rev. 10-51)











◯ LOADING CONDITION COLUMN NUMBER

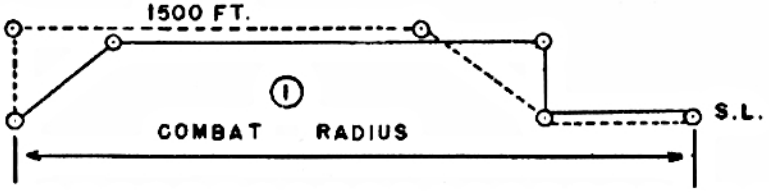
Standard Aircraft Characteristics NAVAER 1335E (Rev. 1-55)

NOTES

MINE LAYER RADIUS PROBLEM

WARM-UP, TAXI, TAKE-OFF: 10 minutes at normal rated power at sea level.
CLIMB: To cruise altitude of 1,500 ft. at normal rated power.
CRUISE-OUT: At speed for long range at cruise altitude.
DESCEND: To sea level.
RUN-IN: 50 nautical miles at military rated power.
DROP MINES:
RUN-OUT: 50 nautical miles at military rated power.
CLIMB: To cruise altitude of 1,500 ft. at normal rated power.
CRUISE-BACK: At speed for long range at cruise altitude.
RESERVE: 20 minutes at speed for long range at sea level plus 5% of initial fuel load.

MISSION TIME = CLIMB + CRUISE-OUT + RUN-IN + RUN-OUT + CLIMB + CRUISE-BACK



Combat Radius (mine layer problem) is reduced approximately 6 nautical miles for each additional minute of military power operation.

ASW RADIUS PROBLEM

COMBAT RADIUS = 40% of combat range gear up at 1,500 ft. altitude.

Rate of climb at sea level, military rated power, one engine inoperative (propeller feathered), flaps and gear up.

Gross Weight - lbs.	Rate-of-Climb - ft./min.
56,000	550
67,500	275
70,000	220
76,000	100
80,000	30

(1) LOADING CONDITION COLUMN NUMBER

Standard Aircraft Characteristics NAVAER 1335F (REV. 1-49)