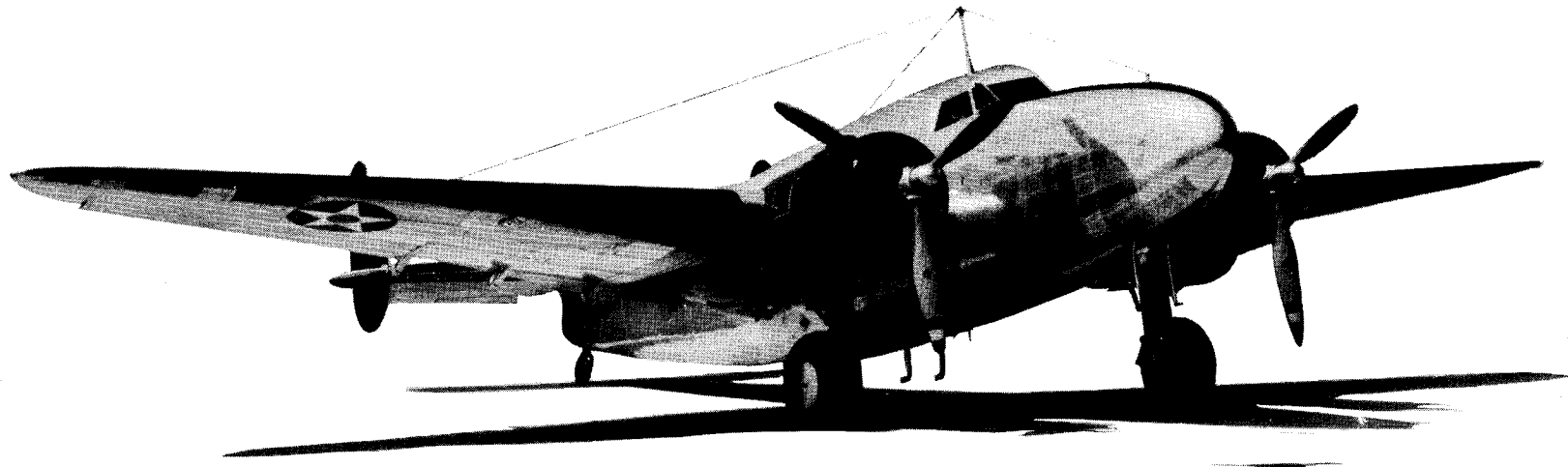


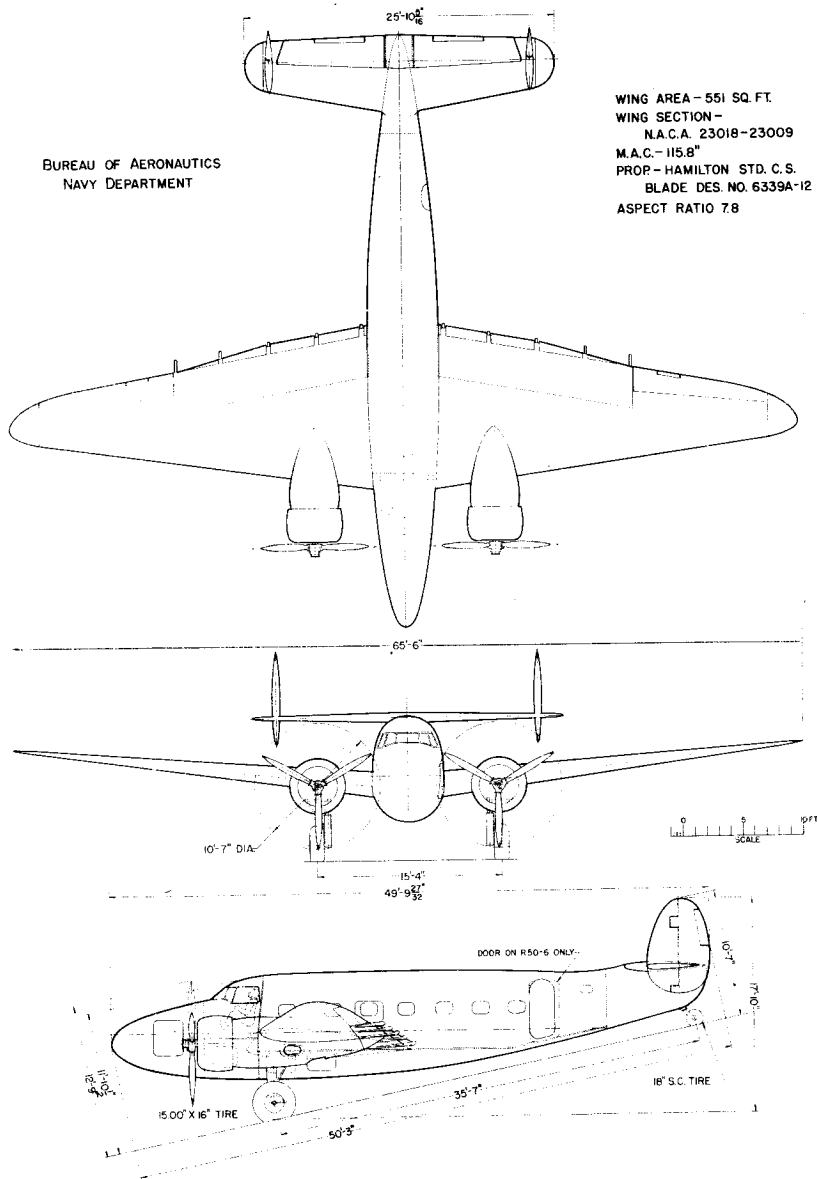
85



STANDARD AIRCRAFT CHARACTERISTICS
R50-3, -4, -5 "LODESTAR"

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

WING AREA - 551 SQ. FT.
WING SECTION -
N.A.C.A. 23018-23009
M.A.C. - 115.8"
PROP - HAMILTON STD. C.S.
BLADE DES NO. 6339A-12
ASPECT RATIO 7.8



DESCRIPTIVE ARRANGEMENT

MISSION AND DESCRIPTION

Transport airplane compares with Air Force C-60A. It is of conventional transport design with exception of the twin tail feature. Landing gear main wheels are retractable. The commercial version, the Lodestar, has seen service on scheduled airlines and has also been widely used as an executive transport.

Hydraulically actuated Fowler flaps are fitted.

WEIGHTS

Loadings	Lbs.	L.F.
EMPTY.....	12759	(-3).....
	13040	(-4).....
	13104	(-5).....
BASIC.....	13248	(-3).....
	13337	(-4).....
	13422	(-5).....
DESIGN.....	185003.12
MAX. T.O.....	19500	(-3).....2.40
	21500	(-4).....2.80
	21500	(-5).....2.80
MAX. LAND.....	18500	(-3).....
	19500	(-4, -5).....

All weights are actual.

POWER PLANT

NO. & MODEL.....(2) R-1820-40
MFR.....Wright
SUPERCH.....1 Stage, 2 Speed
PROP.GEAR RATIO.....3:2
PROP. MFR.....Ham. Std.
PROP.DES. NO.....6339A-12
NO.BL./DIA.....3/10'-7"

RATINGS

	BHP. @ RPM.	@ ALT.
T. O.	1200	2500 SL
NORMAL	1000	2300 SL - 4500'
	900	2300 14000'

SPEC. N-647-C

FUEL AND OIL

Gals. - No. Tanks - Location
644.....4.....Wing

FUEL GRADE.....100/130
FUEL SPEC.....AN-F-28

OIL

CAPACITY (Gal.).....40
SPEC.....AN-O-8
GRADE.....1100-1120

ACCOMMODATIONS

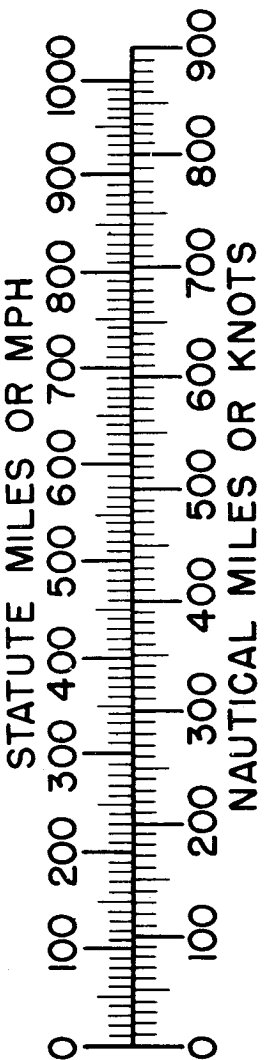
Max. Payload...1444 lbs. (-3)
(With full ...1344 lbs. (-4)
fuel) ...1300 lbs. (-5)
Crew.....4
Passengers10-12

DIMENSIONS

SPAN.....65'-6"
LENGTH.....49'-10"
HEIGHT.....12'-9"
WING AREA.....551 sq. ft.
M.A.C.....115.8"
TREAD.....15'-4"

ELECTRONICS

COMMAND.....SCR-274-N
LIAISON.....SCR-287
COMPASS.....SCR-269-G
IFF.....SCR-595-A



PERFORMANCE SUMMARY

LOADING CONDITION	TRANSPORT			
TAKE-OFF WEIGHT	lbs	19,500		
Fuel	lbs	3864		
Bombs	lbs			
PAYLOAD	lbs	1300		
Wing/Power Loading (A)	lbs/sq.ft. lbs/bhp	35.6/10.9		
Stall Speed--Power off	kn	66.3		
Stall Speed--Power off - No Fuel	kn	59.4		
Stall Speed--Power on	kn	54.7		
Maximum Speed/Alt (B)	kn/ft	223/15100		
Take-off Distance, deck -- calm	ft	1065		
Take-off Distance, deck	kn. ft			
Take-off Distance, Airport	ft	2130		
Rate of climb -- sea level (B)	ft/min	1340		
Service Ceiling (B)	ft	27300		
Time-to-climb 10000 ft. (B)	min	8.3		
Time-to-climb 20000 ft. (B)	min	19.1		
Combat Range/V av 1500	ft. n.mi/kn	1355/113		
Combat Radius/V av	ft. n.mi/kn			
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-to-climb/Alt.	min/ft			

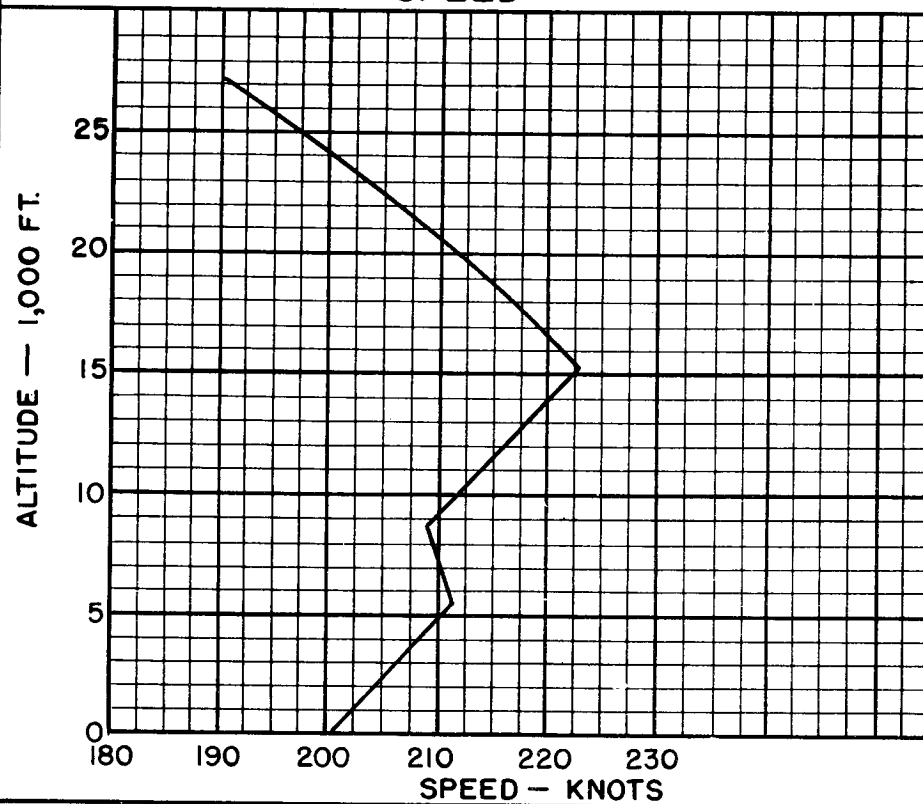
NOTES

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

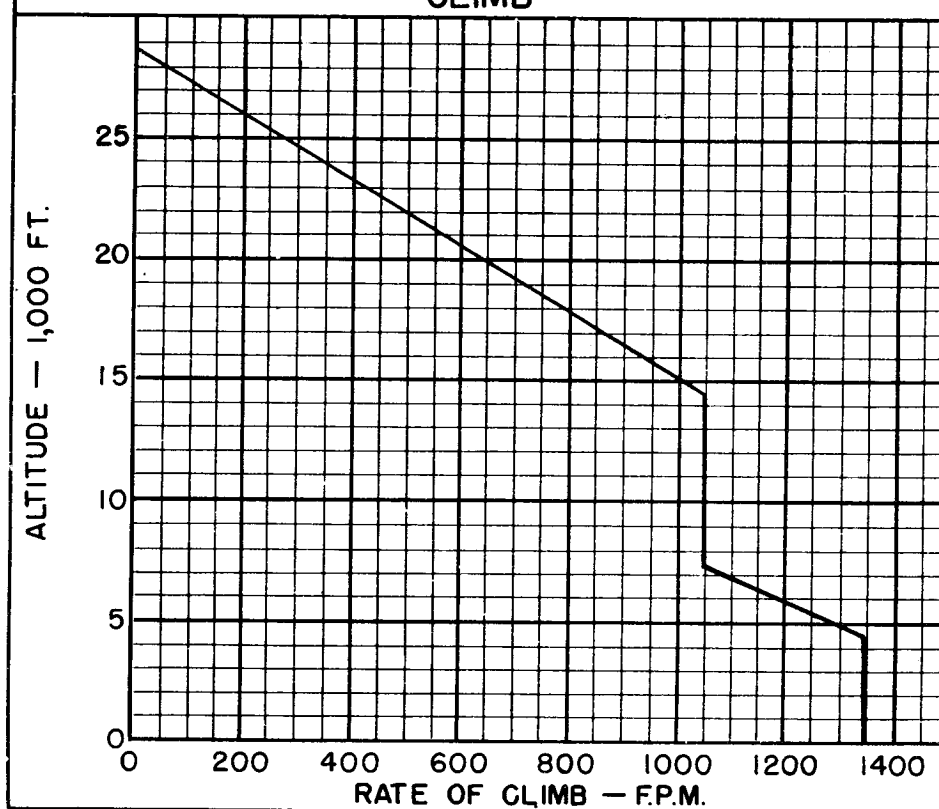
Performance is based on flight test of the R50-4 airplane. Range is based on engine specification fuel consumption data increased by 5%.

Provisions for 10-12 passengers are incorporated.

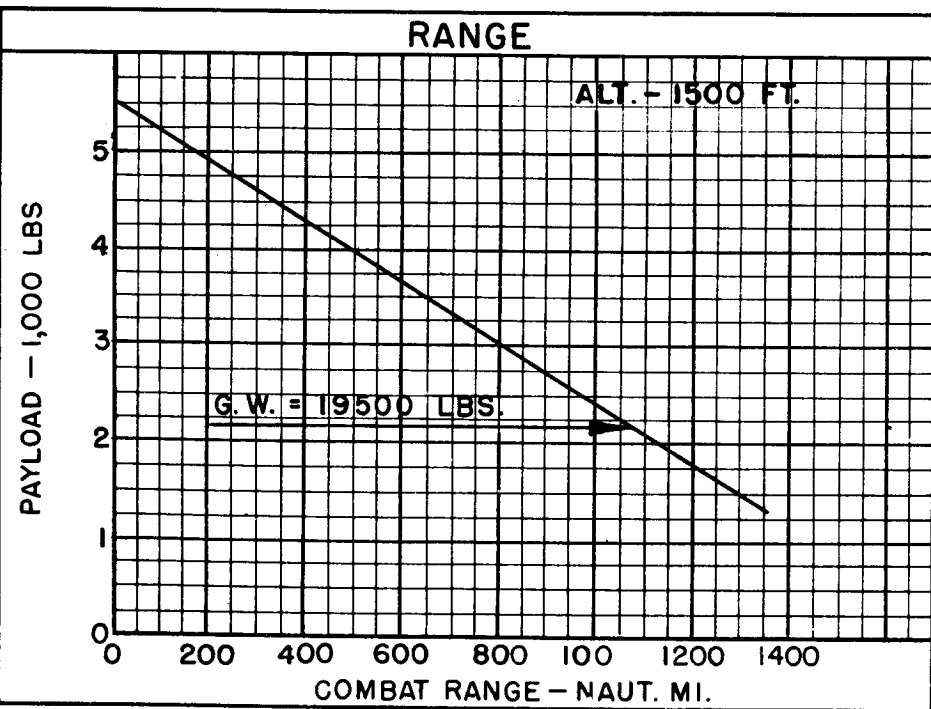
SPEED



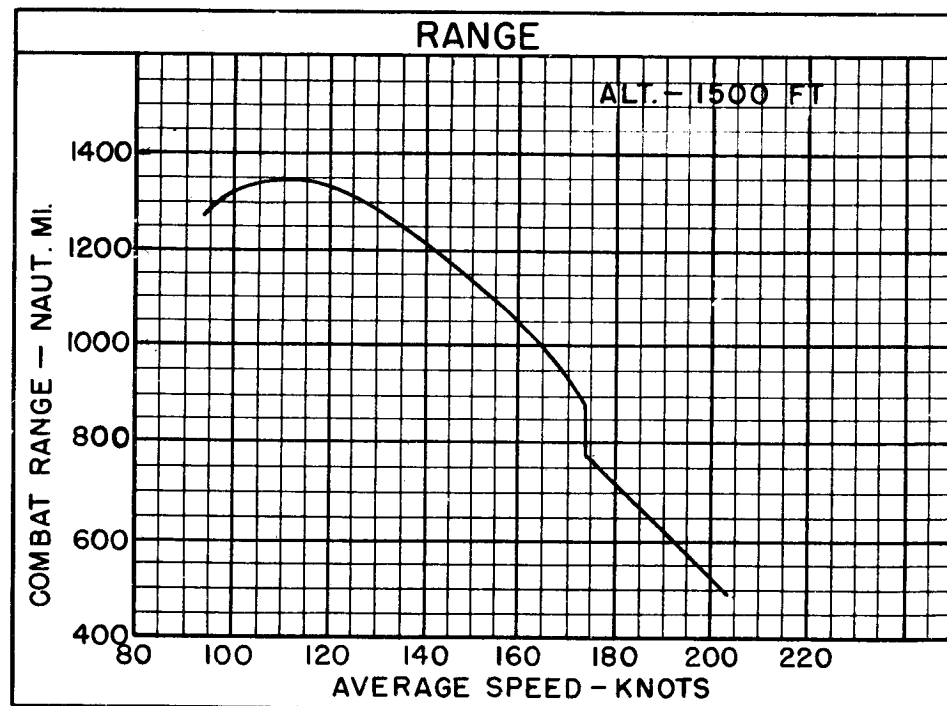
CLIMB



RANGE



RANGE



NOTES

Performance includes the effect of de-icer boots. Removal of de-icer boots increases Vmax at ACA by 2.5 knots and Maximum combat range at 1500' by 1.5%.

Performance with one engine inoperative, flaps and landing retracted and propeller feathered is estimated to be:

Gross weight.....19605#
Rate of climb-S.L.-T.O. power.....350FT/Min.
Service ceiling-normal power.....8200 ft.

The three R50-3 aircraft in use by the Navy are presently fitted with R-1830-92 engines in place of the original R-1830-84A. Ratings from Specification N-5098-A, are:

<u>Normal</u>	<u>Take-off</u>
1050/2550/SL-7500	1200/2700/SL