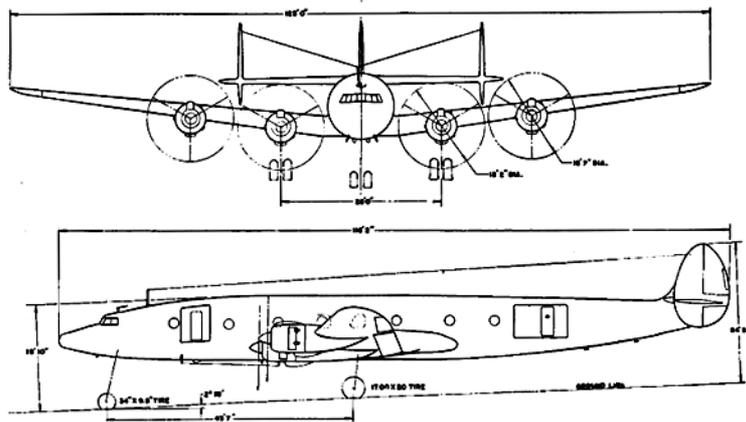
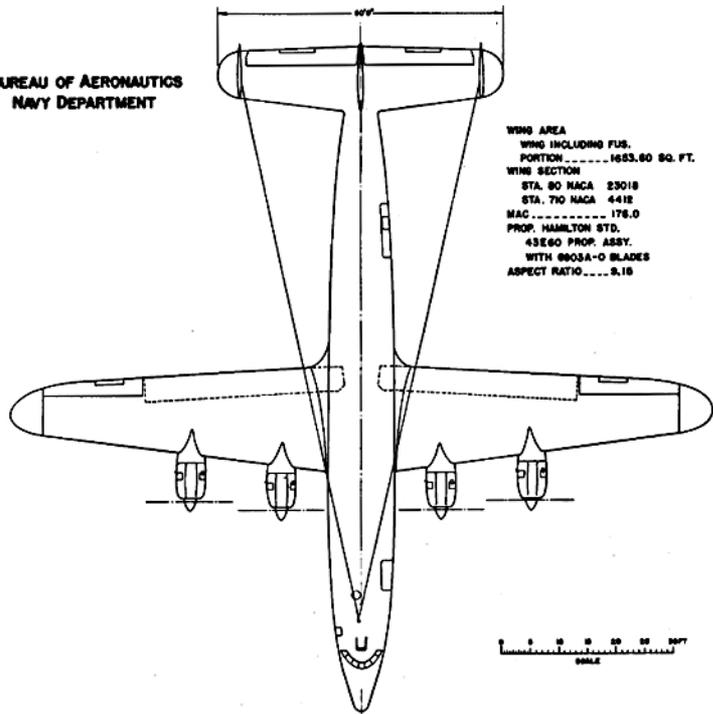


STANDARD AIRCRAFT CHARACTERISTICS

R70-1 "SUPER CONSTELLATION"

LOCKHEED

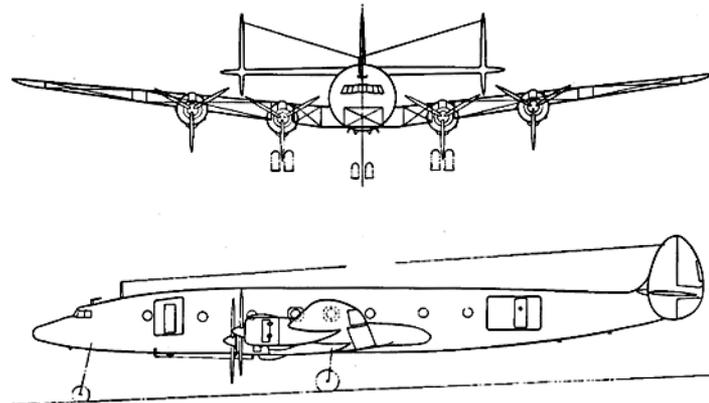
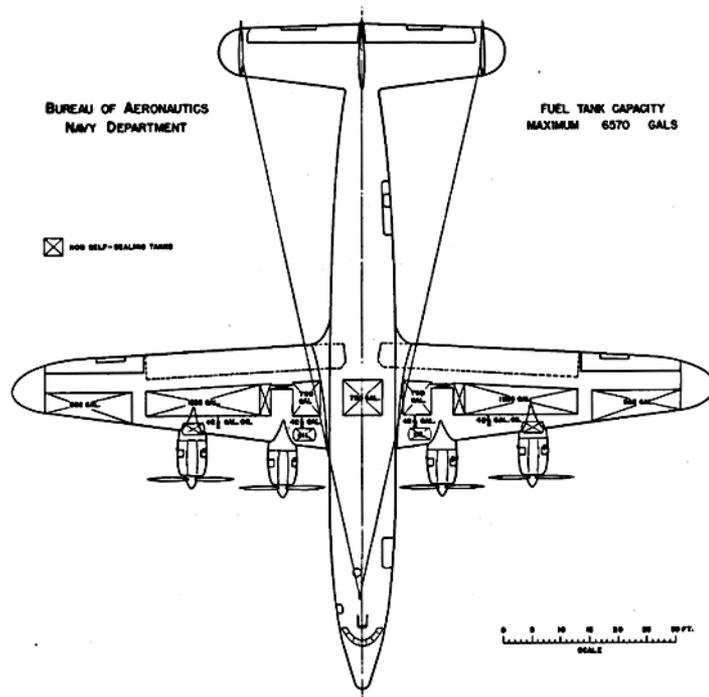
BUREAU OF AERONAUTICS
NAVY DEPARTMENT



DESCRIPTIVE ARRANGEMENT

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

FUEL TANK CAPACITY
MAXIMUM 6570 GALS



ARMAMENT & TANKS

Standard Aircraft Characteristics NAVAER 13358 (REV. 1-49)

MISSION AND DESCRIPTION

The R70-1 is a high-speed long-range cargo/personnel/litter transport aircraft adapted for Navy use from the Lockheed commercial "Super Constellation" transport. Complete installations will be made for an operating crew of 5 (pilot, co-pilot, flight engineer, radio operator, and navigator) with forward bunks and food and liquid stowage to provide for a long-range crew of 8. Seats, a rear galley, and 2 aft lavatories will be provided for approximately one-half of the aircraft under procurement. An integral floor-installed mechanical (two-speed) cargo conveyer will be provided for movement of cargo within all aircraft.

Mock-up date (Navigator's and Radio Operator's Stations only) — April 1951
 First flight — March 1952
 Entering service use — April 1952

DIMENSIONS

WING AREA.....1,654 sq. ft.
 SPAN.....123' - 0"
 LENGTH.....116' - 2"
 HEIGHT.....24' - 9"
 TREAD.....28' - 0"
 M.A.C.....14' - 8"

WEIGHTS

Loadings	Lbs.	L.F.
EMPTY.....	68,539
BASIC.....	70,856
DESIGN.....	130,0002.5
MAX.T.O.....	145,0002.25
DES.LAND..		
(10'/sec.)*	110,000
MAX.LAND..		
(7'/sec.)*	122,000

All weights are estimated.
 *Limit sinking speeds

FUEL AND OIL

Gals.	No. Tanks	Location
1,130	2	Wing
3,110	2	Wing
1,580	2	Wing
750	1	Fuselage
FUEL GRADE.....115/145		
FUEL SPEC....MIL-F-5572		

OIL

CAPACITY (Gals.).....170
 GRADE.....1120
 SPEC.....MIL-O-6082

ELECTRONICS

TRANSMITTER.....AN/ART-13
 LF RECEIVER.....R23A/ARC-5
 ADF RECEIVER.....AN/ARN-6
 MARKER BEACON.....AN/ARW-12
 LOW ALT. ALTIMETER..AN/APN-1
 LORAN.....AN/APN-4
 VOR RECEIVER.....AN/ARN-14
 NAVIGATION RADAR...AN/APS-42
 RADIO REC.EQUIP....AN/ARN-5A
 HIGH ALT.ALTIMETER..SCR-718C
 HF REC. EQUIP...AN/ARR-15,15A
 VHF.....AN/ARC-1,1A
 (SEE NOTES)

POWER PLANT

NO. & MODEL.....(4) R-3350-34
 MFR.....W.A.C.
 SUPERCH.....1 Stage, 2 Speed
 PROP. GFAR RATIO.....0.4375
 PROP. MFR.....Ham. Std.
 PROP. DES. NO.....6903A-0
 NO. BL./DIA.....3/15'-2"

RATINGS

	Bhp	Rpm	Alt.
T. O.	3,250	2,900	S. L.
NORMAL	2,600	2,600	S. L.
	2,650	2,600	6,500'
	2,450	2,600	17,900'

SPEC. NO. N-872

ACCOMMODATIONS

CREW.....5 or 8
 TROOPS.....106
 LITTERS.....73
 PASSENGERS.....106
 CARGO SPACE.....5,679 Ft.³
 FLOOR LOADING...300 lbs./ft.²

MAXIMUM PAY LOAD..39,544 lbs.

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



PERFORMANCE SUMMARY					
LOADING CONDITION		(1) TRANSPORT Maximum Range	(2) TRANSPORT Maximum Cargo	(3) TRANSPORT	(4) TRANSPORT
TAKE-OFF WEIGHT	lbs.	145,000	138,000	130,000	130,000
Fuel	lbs.	39,420	25,000	39,420	25,000
Bombs	lbs.	--	--	--	--
Cargo	lbs.	31,892	39,544	16,892	31,544
Wing/Power Loading (A)	lbs/sq.ft;lbs/bhp.	87.7/14.8	83.5/14.1	78.6/13.3	78.6/13.3
Stall Speed--Power off	kn.	100.9	98.3	95.6	95.6
Stall Speed--Power off - No Fuel	kn.	89.2	91.0	87.6	87.6
Stall Speed--Power on	kn.	94.3	92.0	89.3	89.3
Maximum Speed/Alt (B)	kn/ft.	310/19,500	317/19,600	325/19,700	325/19,700
Take-off Distance, deck -- calm	ft.	2,860	2,430	2,082	2,082
Take-off Distance, deck	kn. ft.	--	--	--	--
Take-off Distance, 50 Ft. Height	ft.	5,337	4,670	4,083	4,083
Rate of climb -- sea level (B)	ft/min.	805	895	1,000	1,000
Service Ceiling (B)	ft.	21,100	22,000	23,100	23,100
Time-to-climb 10,000 ft. (B)	min.	14.2	12.3	10.9	10.9
Time-to-climb 20,000 ft. (B)	min.	37.1	31.4	26.4	26.4
Combat Range/V av 10,000	ft. n.mi/kn.	3,110/216	1,870/216	3,500/214	1,970/216
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/Alt	kn/ft.				
Combat speed/Alt	kn/ft.				
Rate of climb SL	ft/min.				
Ceiling for 500 fpm R/C	ft.				
Time-to-climb/Alt.	min/ft.				

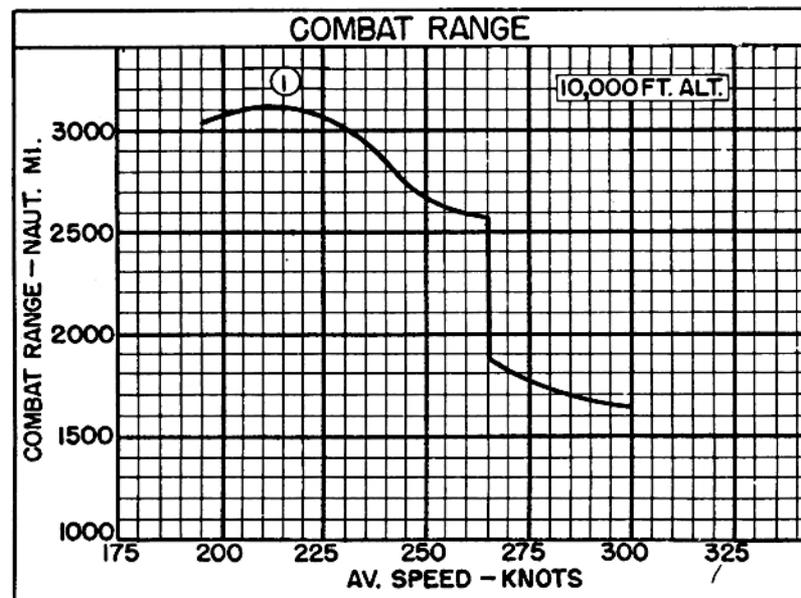
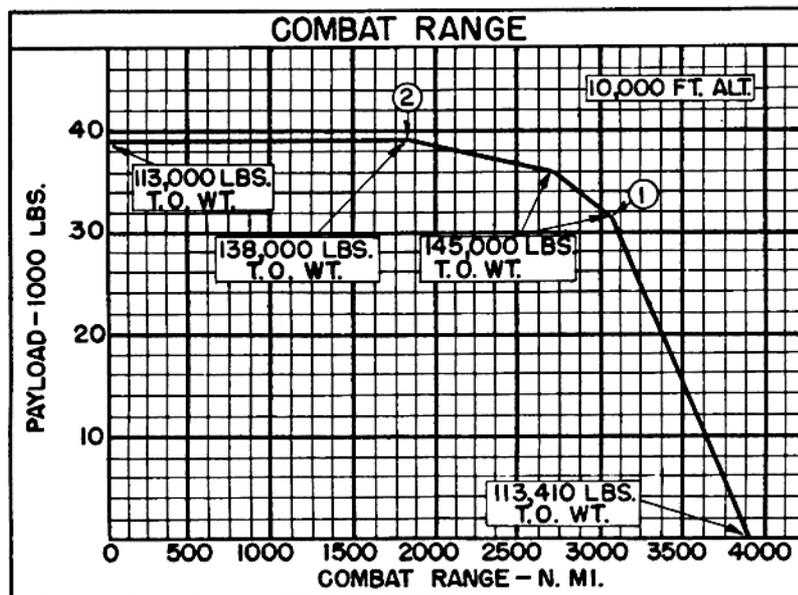
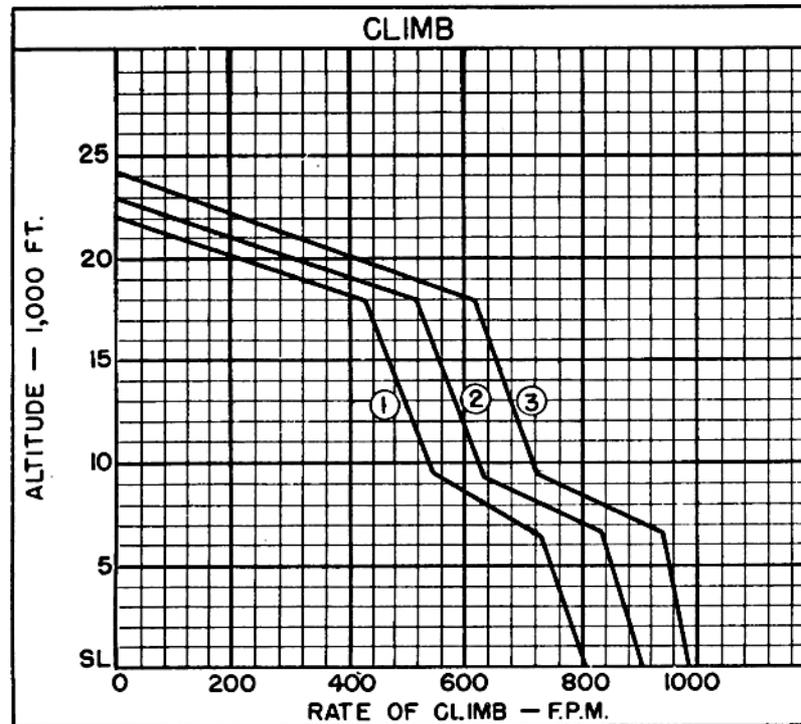
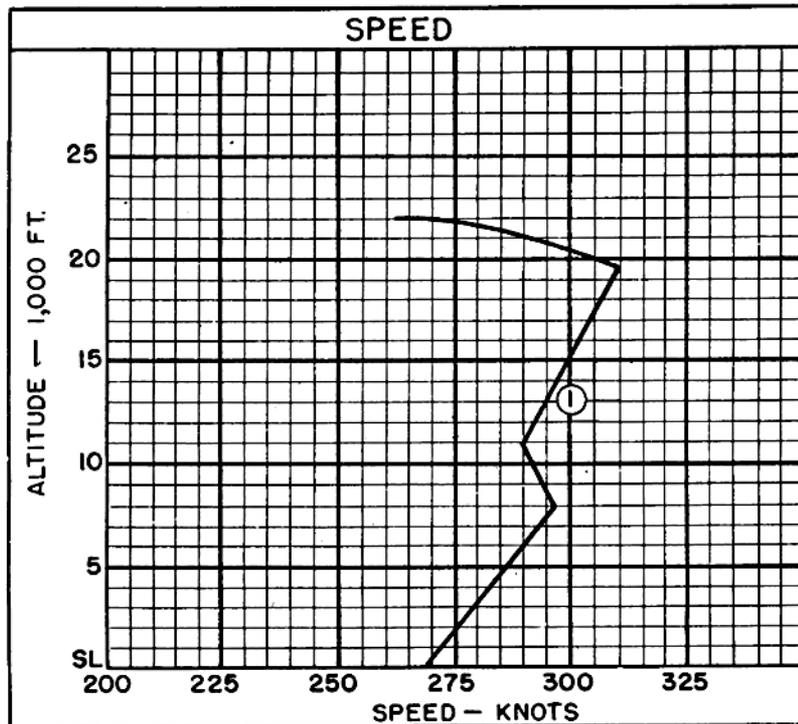
NOTES

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

Performance is based on calculations.

 Combat range is based on engine specification fuel consumption data increased by 5%.

The Commercial version of the R70-1 has been CAA certificated at 130,000 pounds weight.



○ LOADING CONDITION COLUMN NUMBER

Standard Aircraft Characteristics NAVAER 133SE (REV. 1-49)

