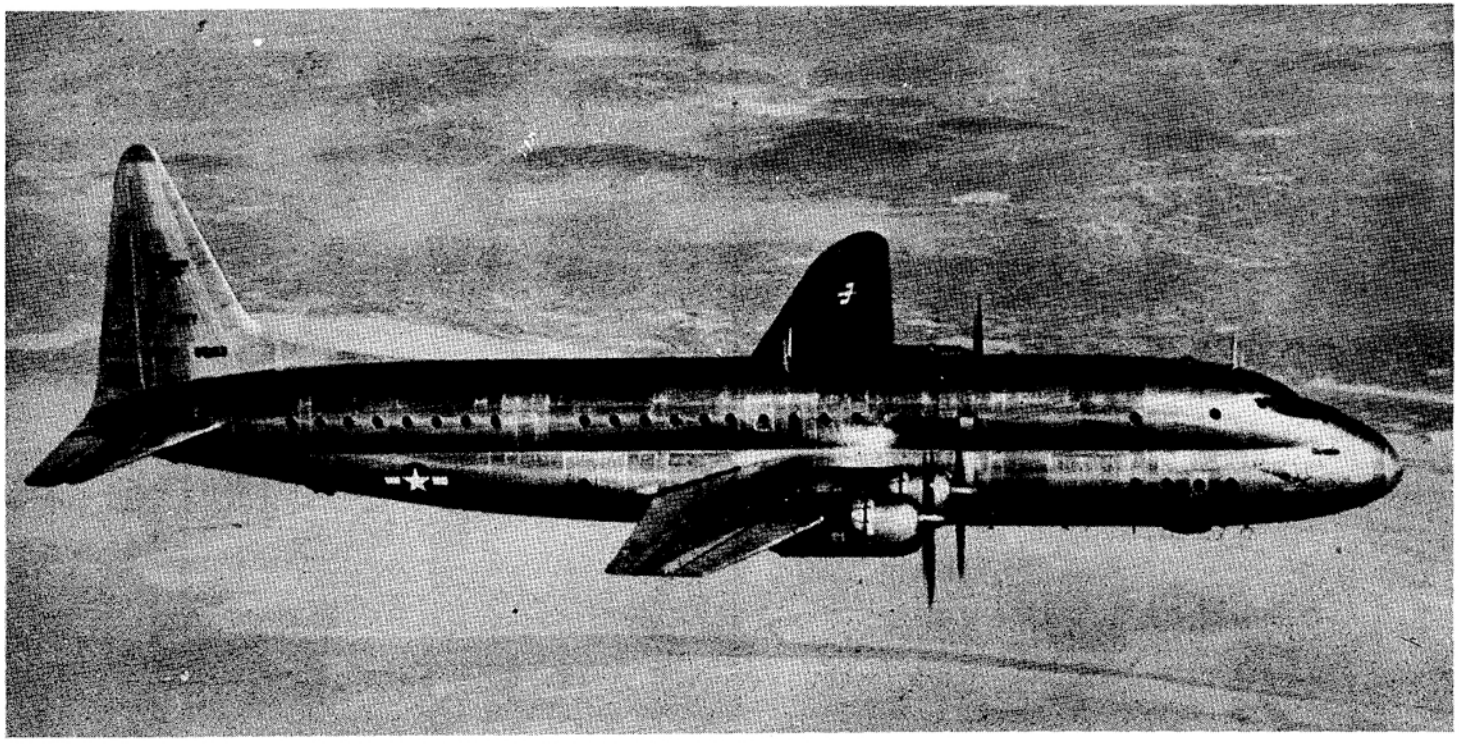


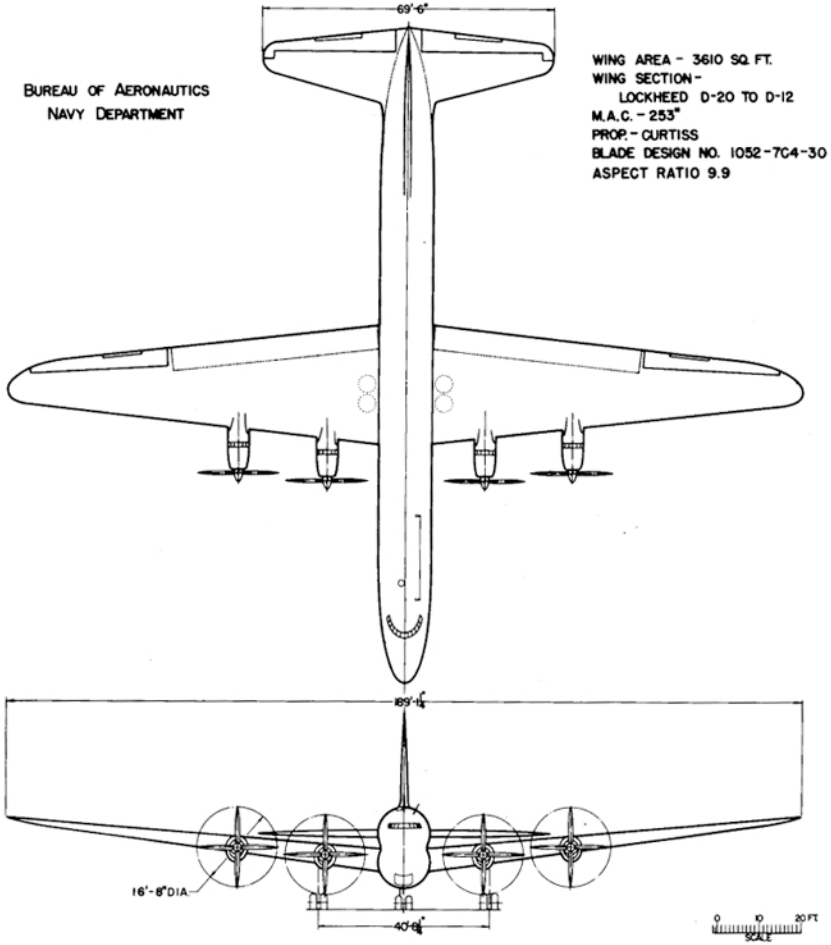
STANDARD AIRCRAFT CHARACTERISTICS

XR60-1 "CONSTITUTION"

LOCKHEED

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

WING AREA - 3610 SQ. FT.
WING SECTION -
LOCKHEED D-20 TO D-12
M.A.C. - 253"
PROP. - CURTISS
BLADE DESIGN NO. 1052-7C4-30
ASPECT RATIO 9.9



DESCRIPTIVE ARRANGEMENT

MISSION AND DESCRIPTION

Lockheed "Constitution" XR60-1. Transport airplane with cargo space on lower deck. Both personnel and cargo space are pressurized. Only two of these airplanes have been built. Controls are hydraulically operated with an electrically operated tab system. Electrical system of 120 Volts D.C. is unique. A tricycle geared airplane, it has a dual tandem arrangement of its main landing gear and wheels are rotated by electric motors for landing. This is the first pressurized cabin transport airplane in the Navy.

Wing is conventional two-spar structure, fitted with Fowler flaps and thermal anti-icing. Four 19.8 gallon water tanks are carried for engine injection.

Two inboard engines have reversable propellers.

WEIGHTS

Loadings	Lbs.	L.F.
EMPTY	117,139	
BASIC	122,055	Transport
	119,811	Cargo
DESIGN	184,000	2.5
MAX.T.O	184,000	2.5
MAX.LAND	160,000	

All weights are actual.

FUEL AND OIL

Gals.	No. Tanks	Location
9,780	4	Wing

FUEL GRADE....115/145
FUEL SPEC.....AN-F-48

OIL

CAPACITY (Gals.).....402
GRADE.....1100
SPEC.....AN-O-8

POWER PLANT

NO. & MODEL....(4) R-4360-22W
MFGR.....P. & W.
SUPERCH.....1 Stage, 1 Speed ∕ Turbo
PROP. GEAR RATIO.....0.375
PROP. MFGR.....Curtiss
PROP. DES. NO.....1052-7C4-30
NO. BL./DIA.....4/16'-8"
TURBO SUPER.....G.E. BH-3

RATINGS

	Bhp	@ Rpm	@ Alt.
T. O.	3,250	2,700	S. L.
NORMAL	2,650	2,550	5,500'

SPEC. NO. N-7066

ORDNANCE

CREW.....6 - 8
PASSENGERS.....92

Cargo hoist capacity..4,600#
Cargo Doors:

Fwd: 104" x 74"
Aft: 85" x 74"
Aux: 42" x 42"

Height of Sill of
Fwd. and Aft Doors.....98.5"

DIMENSIONS

SPAN.....189'-1"
LENGTH.....156'-1"
HEIGHT.....50'-5"
WING AREA.....3,610 sq. ft.
M.A.C.....253"
TREAD.....40'-8"

ELECTRONICS

VHF COMMAND.....AN/ARC-1
RANGE REC.....AN/ARC-5
MARKER BEACON REC....AN/ARN-8
LIAISON REC.....BC-34B
ALTIMETER.....AN/APN-1
LORAN.....AN/APN-4
IFF.....AN/APX-2
SEARCH.....AN/APS-31

PERFORMANCE SUMMARY

LOADING CONDITION		(1) CARGO	(2) CARGO - TRANSPORT	(3) TRANSPORT 168 PASSENGERS	
TAKE-OFF WEIGHT	lbs.	184,000	184,000	184,000	
Fuel	lbs.	39,335	37,421	22,955	
Bombs	lbs.				
Payload	lbs.	20,000	20,000	35,280	
Wing/Power Loading (A)lbs/sq.ft;lbs/bhp.		51.0/17.3	51.0/17.3	51.0/17.3	
Stall Speed--Power off	kn.	77.0	77.0	77.0	
Stall Speed--Power off - No Fuel	kn.	68.3	68.8	72.0	
Stall Speed--Power on	kn.	63.5	63.5	63.5	
Maximum Speed/Alt (B)	km/ft.	258/23,700	258/23,700	258/23,700	
Take-off Distance, deck -- calm	ft.	2,790	2,790	2,790	
Take-off Distance, deck 25 kn.	ft.	1,540	1,540	1,540	
Take-off Distance, Airport	ft.	4,210	4,210	4,210	
Rate of climb -- sea level (B)	ft/min.	710	710	710	
Service Ceiling (B)	ft.	27,200	27,200	27,200	
Time-to-climb 10,000 ft. (B)	min.	15.0	15.0	15.0	
Time-to-climb 20,000 ft. (B)	min.	33.9	33.9	33.9	
Combat Range/V av 1,500 ft.	n.mi/kn.	2,120/148	2,030/148	1,170/147	
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	km/ft.				
Combat speed/Alt	km/ft.				
Rate of climb SL	ft/min.				
Ceiling for 500 fpm R/C	ft.				
Time-to-climb/Alt.	min/ft.				

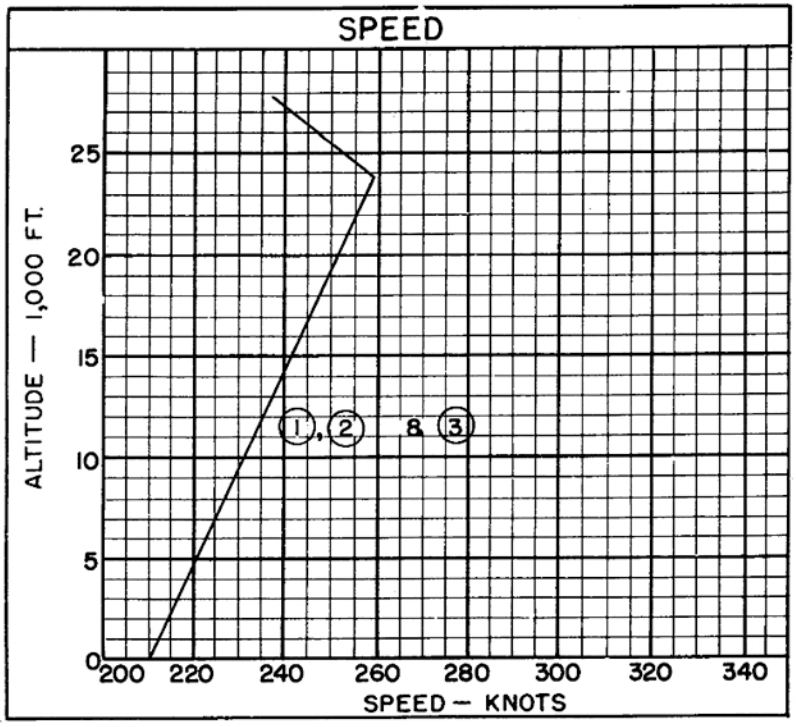
NOTES

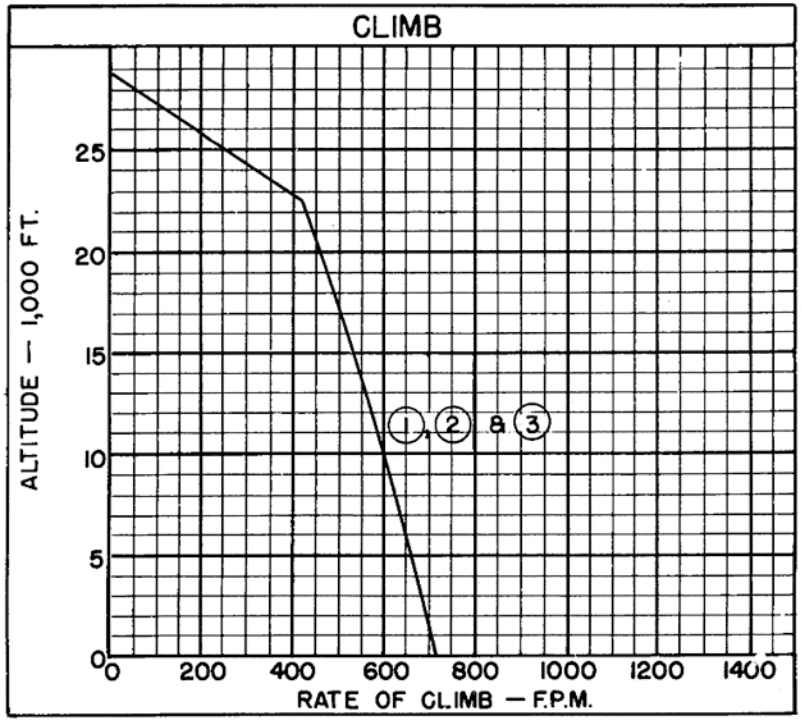
(A) BHP at Maximum Critical Altitude
(B) Normal BHP

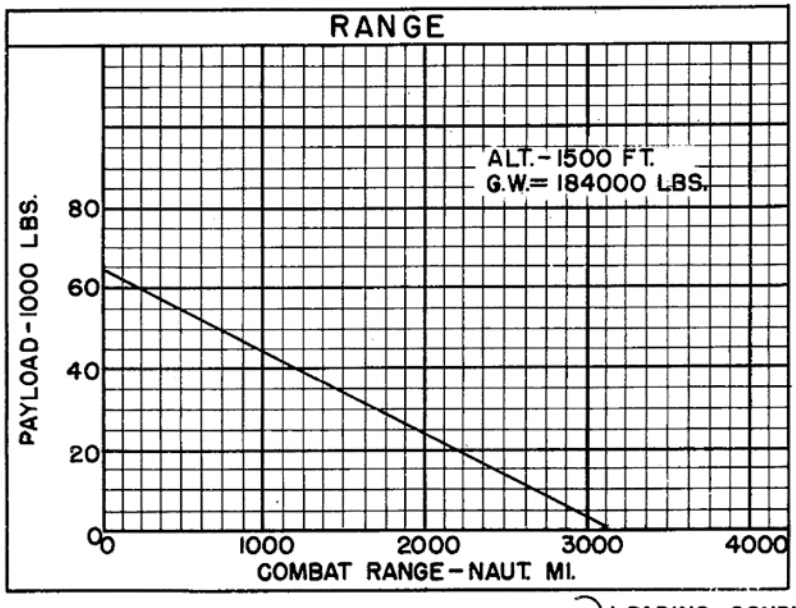
Performance is based on flight test of XR60-1 airplane. Range is based on flight test fuel consumption data increased by 5%.

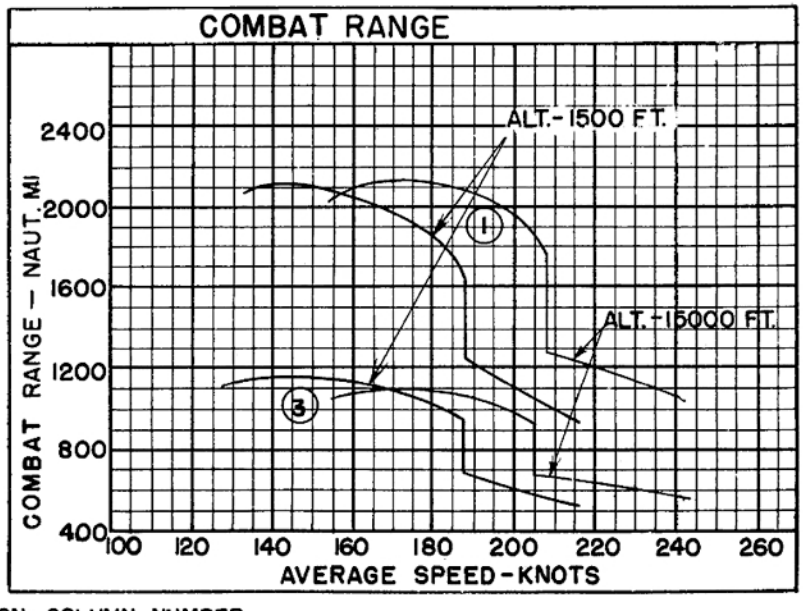
Performance with one engine inoperative, flaps and landing gear retracted, propeller feathered is estimated to be:

Gross Weight.....184,000 lbs.
Service Ceiling - Normal Power.....22,800 ft.
R/C - S.L. - T.O. Power.....831 ft./min.









◯ LOADING CONDITION COLUMN NUMBER

NOTES

At a design maximum landing gross weight of 160,000 lbs., performance is estimated to be:

V_S (power-on).....59 kn.
R/C - S.L. - Normal Power.....1,270 ft./min.
T.O. distance - 50 ft. obst.....2,575 ft.

Take-off is with 3,350 BHP per engine (water injection) and zero flaps.
