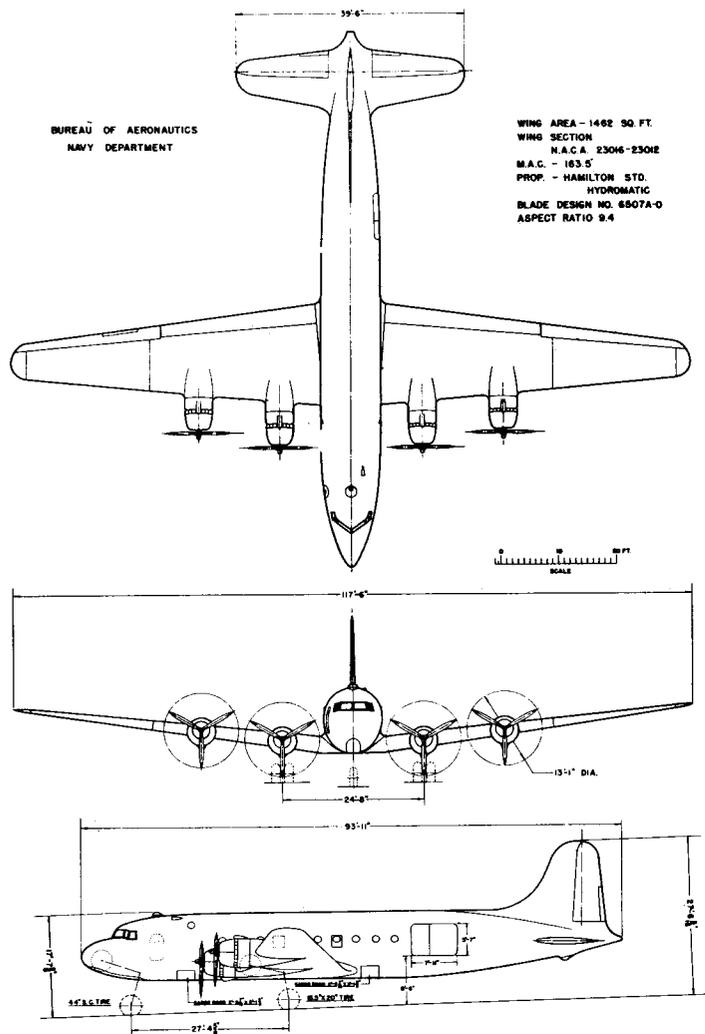




STANDARD AIRCRAFT CHARACTERISTICS  
EC-54U SKYMASTER



2

**POWER PLANT**

NO. & MODEL.....(4) R-2000-9  
 MFR.....Pratt & Whitney  
 SUPERCH.....1 Stage, 2 Speed  
 RED. GEAR RATIO.....2:1  
 PROP. MFR.....Ham. Std.  
 PROF. DES. NO.....6507A,0  
 NO. BLD./DIA.....3/13' -1"

**RATINGS**

	BHP	RPM	ALT
T.O.	1,450	2,700	S.L.
NORM.	1,100	2,550	S.L.
			to 7,500'
	1,000	2,550	10,000'
			to 17,000'

SPEC. NO. A-9021-B

**ACCOMMODATIONS**

Crew.....6  
 Passenger seats.....40  
 Max. Floor Load. 200 lbs/sq. ft.  
 Boom Hoist Cap. ....2,000 lbs.  
 Cargo Door  
 Height.....67"  
 Width.....95"

Max. Payload.....29,000 lbs.

**MISSION AND DESCRIPTION**

The Douglas "Skymaster" R5D-4 personnel transport is the same as the Air Force C54-E.

It is of conventional structure, with a 3 spar center section and single spar wing. It is fitted with slotted flaps and tricycle landing gear. Power plants are demountable and interchangeable. Deicer shoes may be fitted to wing, fin and stabilizer. The glider tow fittings have been removed from Navy planes.

The design of the R5D-4 stems from the commercial DC-4 design.

**DEVELOPMENT**

Service use.....1945

**DIMENSIONS**

WING  
 AREA.....1,462 sq. ft.  
 SPAN.....117' -6"  
 MAC.....13' -7"  
 LENGTH.....93' -11"  
 HEIGHT.....27' -6"  
 TREAD.....24' -8"  
 PROF. GRD. CLEARANCE.....3'-0"

**WEIGHTS**

LOADINGS	LBS.	L.F.
EMPTY.....	41,700	
BASIC.....	42,662	
DESIGN.....	62,000	2.5
MAX. T.O.....	73,000	
MAX. LDG.....	66,000	

L.F. varies from 2.3 to 2.6 depending on the amount of fuel in the wings. See flight handbook.  
 All weights are actual.

**FUEL AND OIL**

No. Tanks	Tot. Gals.	Location
8	3,540	Wing
FUEL GRADE.....100/130		
FUEL SPEC.....MIL-F-5572		

**OIL**

CAPACITY (Gals).....	138
GRADE.....	1100
SPEC.....	MIL-L-6082

**ELECTRONICS**

IF & MEF COMMAND...SCR-274-N  
 VHF COMMAND.....AN/ARC-1  
 LIAISON.....(2) AN/ART-13  
 IFF.....AN/APX-6  
 COMPASS SCR-269-G  
 and AN/ARN-7  
 MARKER BEACON.....AN/ARN-8  
 ALTIMETER.....SCR-718-A  
 and AN/APN-1  
 LORAN.....AN/APN-4

(Cont'd on NOTES page.)

## PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION		TRANSFERT FULL FUEL			
TAKE-OFF WEIGHT	lb.	73,000			
Fuel	lb.	21,240			
Payload	lb.	9,098			
Wing loading	lb./sq.ft.	49.9			
Stall speed - power-off	kn.	79.5			
Take-off run at S.L. - calm (B)	ft.	2,700			
Take-off run at S.L. 25 kn. wind (B)	ft.	1,400			
Take-off to clear 50 ft. - calm (B)	ft.	4,650			
Max. speed/altitude (A)	kn./ft.	243/18,300			
Rate of climb at S.L. (A)	fpm	830			
Time: S.L. to 10,000ft. (A)	min.	14.6			
Time: S.L. to 20,000ft. (A)	min.	39.1			
Service ceiling (100 fpm)	ft.	22,700			
Combat range	n.mi.	2,590			
Average cruising speed	kn.	174			
Cruising altitude(s)	ft.	5,000			
Combat radius	n.mi.	-			
Average cruising speed	kn.	-			
COMBAT LOADING CONDITION					
COMBAT WEIGHT	lb.				
Engine power					
Fuel	lb.				
Combat speed/combat altitude	kn./ft.				
Rate of climb/combat altitude	fpm/ft.				
Combat ceiling (500 fpm)	ft.				
Rate of climb at S.L.	fpm				
Max. speed at S.L.	kn.				
Max. speed/altitude	kn./ft.				
LANDING WEIGHT					
Fuel	lb.				
Stall speed - power-off	kn.				
Stall speed - with approach power	kn.				

## NOTES

(A) Normal Rated Power

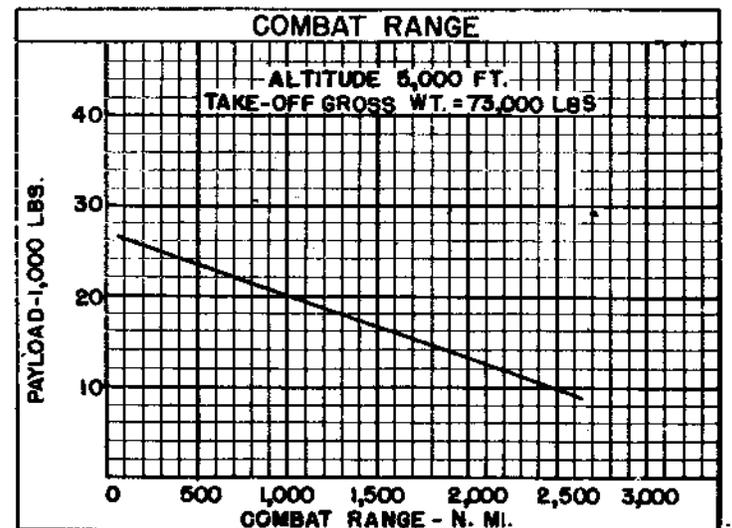
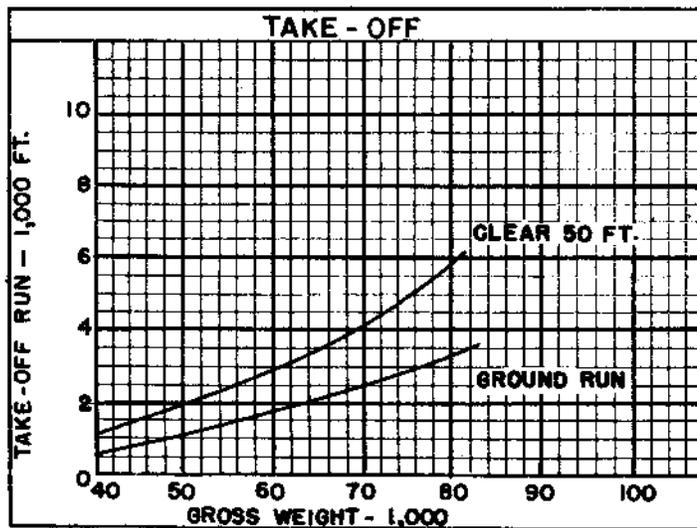
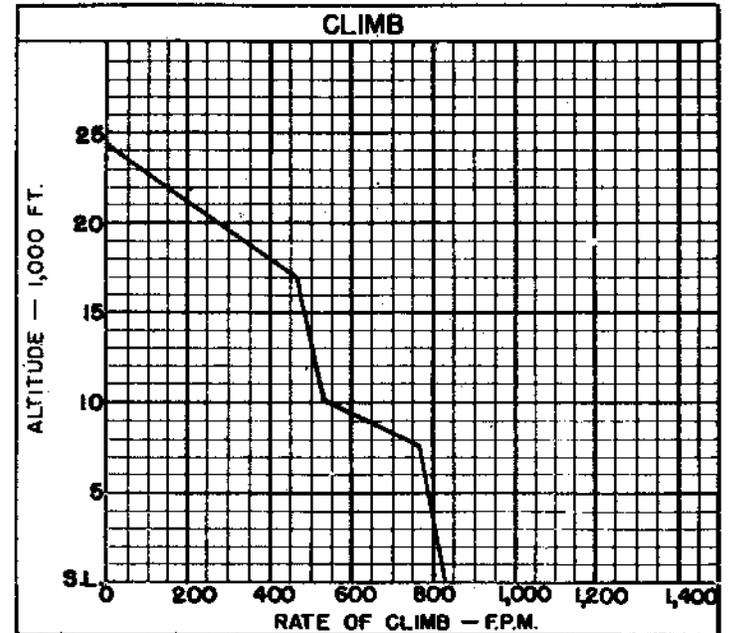
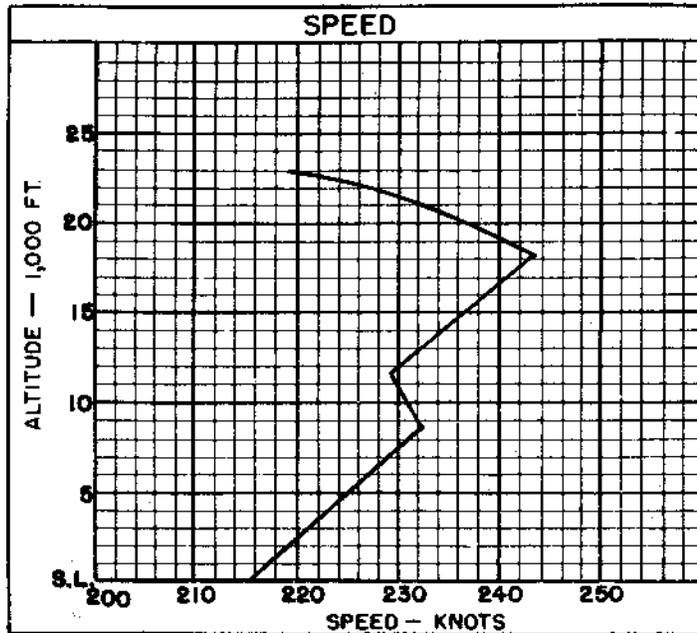
(B) Take-Off Power

Performance Basis: Flight test of R5D-4 airplane.

Range and radius are based on engine specification fuel consumption data increased by 5%.

Performance includes the effect of deicer boots. Removal of deicer boots increases  $V_{max}$  @ ACA by 4.5 knots.

4



○ LOADING CONDITION COLUMN NUMBER

5

# NOTES

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

Gross Weight.....	LBS.	73,000
Rate of Climb - S. L., T.O. Power.....	Ft/Min.	620
Service Ceiling - Normal Power.....	Ft.	15,400

## COMBAT RANGE

WARM-UP, TAKE-OFF, ACCELERATION: 10 minutes at normal rated power.

CLIMB: On course to 5,000 ft. at normal rated power.

CRUISE: At speed for long range at 5,000 feet.

RESERVE: 30 minutes at speed for long range plus 5% of initial fuel load.

COMBAT RANGE = CLIMB + CRUISE

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## ELECTRONICS (CONT'D)

GLIDE SLOPE REC.....AN/ARN-18  
 LOCALIZER.....(2) AN/ARN-14  
 LF COMM. REC.....(2) BC-348  
 NAV RADAR.....AN/AFS-42  
 UHF COMMAND.....AN/ARC-27