

NAVAIR 00-110AT34-1

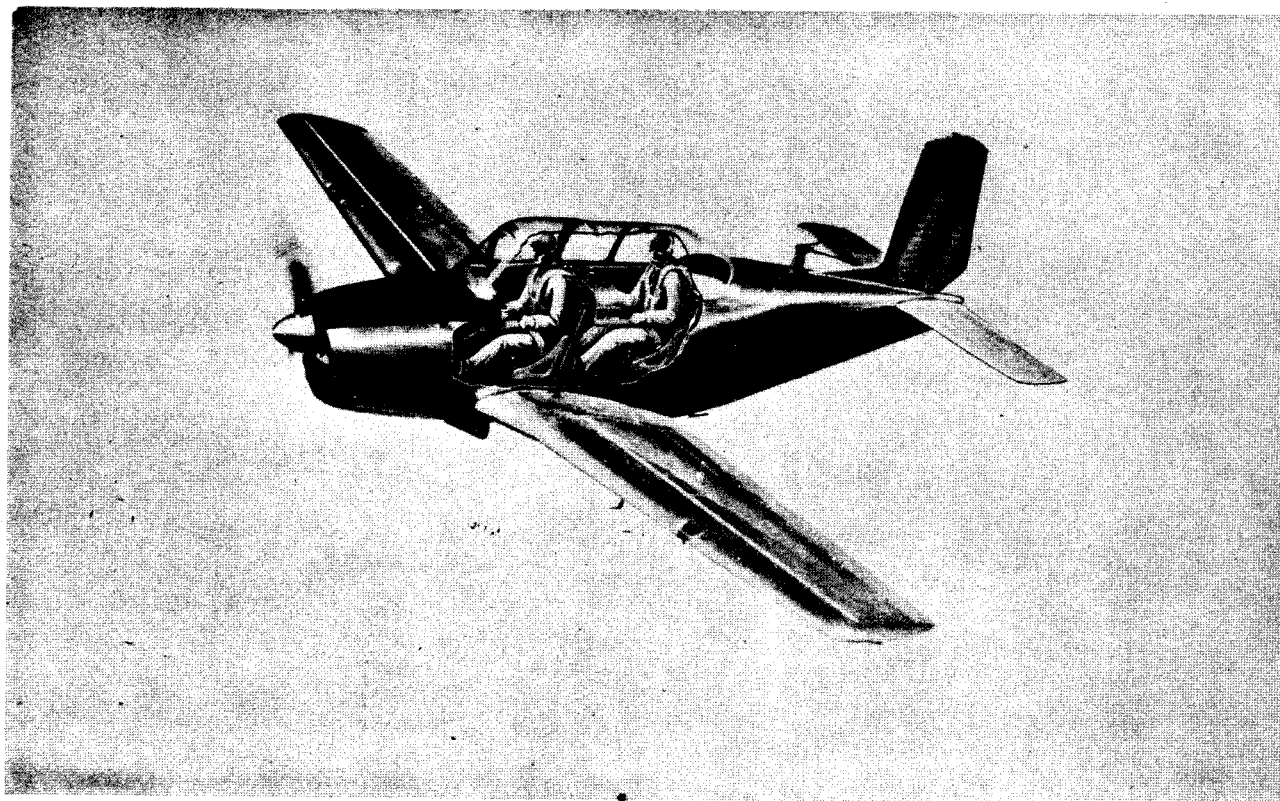
Standard Aircraft Characteristics

NAVY MODEL T-34B AIRCRAFT

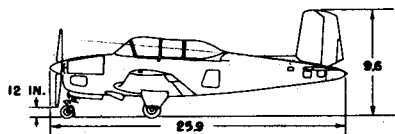
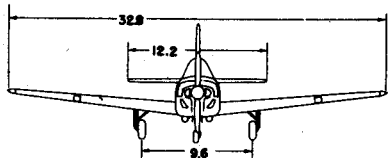
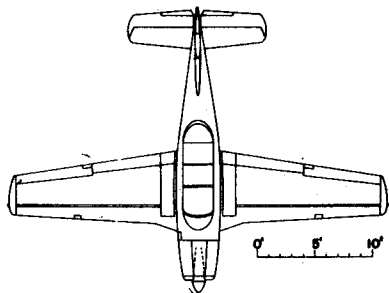
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1 MAY 1955 IN PART AND ALL ADDENDA THERETO

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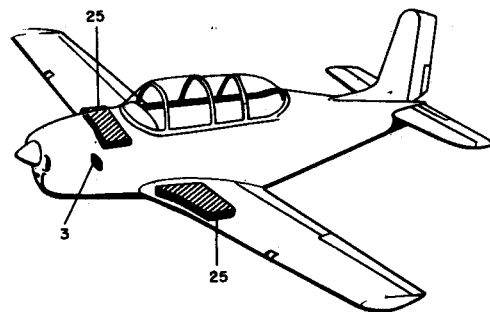
1 JULY 1967



STANDARD AIRCRAFT CHARACTERISTICS
T-34B MENTOR



wing Area	177.6 sq ft	Wing Section:
Aspect Ratio	6.1	(root) . . NACA23016.5
M.A.C.64.58 in	(tip) . . . NACA23012



No Pressurization

▨ Fuel (Gal)

■ Oil (Gal)

POWER PLANT

NO. & MODEL.....(1)O-470-13
 MFR.....Continental
 RED. GEAR RATIO.....1,000
 PROF. MFR.....Beech
 PROF. BL. DES. NO.....278-208-84
 NO. BL./DIA.....2/7' -0"

RATINGS

	BHP @	RFM @	ALT.
T.O.	225	2,600	S.L.
NORMAL	225	2,600	S.L.

Eng. Spec. No....1219E

ACCOMMODATIONS

Crew.....2

MISSION AND DESCRIPTION

The principal mission of the T-34B is primary and basic pilot training.

It is a two-place, tandem, all-metal, low-wing, single-engine aircraft.

An overturn structure is incorporated in the windshield frame as a safety feature. Heating and ventilating are provided in both cockpits. Exhaust augmenters are provided to reduce internal drag, thereby eliminating the need for cowl flaps.

NACA slotted flaps and ailerons are incorporated, the ailerons having servo tabs, the left one being adjustable for trim. The rudder and elevators are equipped with adjustable tabs, the rudder tab being an anti-servo type.

The landing gear and wing flaps are electrically operated. The landing gear is fully retractable and is completely covered when retracted. Brakes are hydraulically operated.

DEVELOPMENT

First flight....October 1954
 Service use.....May 1955

DIMENSIONS

WING

AREA.....178 sq.ft.
 SPAN.....32' -10"
 MAC.....5' -4"
 SWEEPBACK($\frac{1}{4}$ CHORD).....0°
 LENGTH.....25' -10"
 HEIGHT.....9' -7"
 TREAD.....9' -7"
 PROF. GRD. CLEARANCE.....1' -0"

WEIGHTS

LOADINGS	LBS	L.F.
EMPTY.....	2,239	
BASIC.....	2,246	
DESIGN.....	2,975	6.0
MAX. T.O.....	2,975(A)	
MAX. LAND.....	2,975(A)	

All weights are calculated.

(A) Limited by structure.

FUEL AND OIL

No. tanks	Tot. Gal.	Location
2	51	Wing
		FUEL GRADE.....80
		FUEL SPEC....MIL-F-5572

OIL

CAPACITY(Gals).....3
 GRADE.....1065 Winter
 1100 Summer
 SPEC.....MIL-L-6082

ELECTRONICS

AIRCRAFT RADIO CORP:

VHF COMMAND RECEIVER...R-19
 VHF TRANSMITTER
 (116-132MC).....T-11B
 VHF TRANSMITTER
 (132-148MC).....T-13A
 VHF NAVIGATION EQUIPMENT
 (108-135 MCS).....ARN-30A

SERVICE

PERFORMANCE SUMMARY

TAKE-OFF LOADING CONDITION	(1) BASIC MISSION	(2) FERRY MISSION			
TAKE-OFF WEIGHT lb.	2,975	2,775			
Fuel lb.	306	306			
Payload lb.	None	None			
Wing loading lb./sq.ft.	16.8	15.6			
Stall speed - power-off kn.	49.0	47.0			
Take-off run at S.L. - calm ft.	1,185	980			
Take-off run at S.L. kn. wind ft.	-	-			
Take-off to clear 50 ft. - calm ft.	1,420	1,220			
Max. speed/altitude (A) kn./ft.	162/S.L.	162/S.L.			
Rate of climb at S.L. (A) fpm	1,100	1,230			
Time: S.L. to 10,000 ft. (A) min.	12.5	10.9			
Time: S.L. to Service ceiling (A) min.	38.6	38.5			
Service ceiling (100 fpm) (A) ft.	17,300	18,600			
Combat range n.mi.	705	755			
Average cruising speed kn.	110	105			
Cruising altitude(s) ft.	5,000	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					
LANDING WEIGHT lb.	2,697	2,496			
Fuel lb.	28	27			
Stall speed - power-off kn.	46.2	44.2			
Stall speed - with approach power kn.	43.2	41.2			

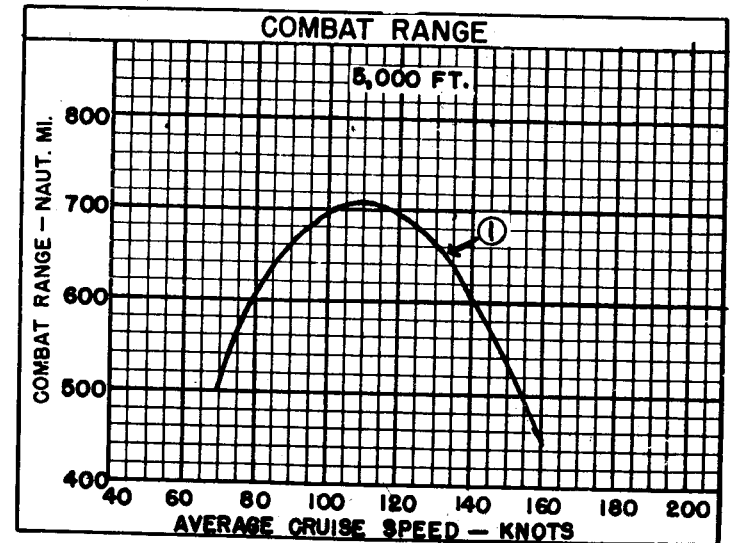
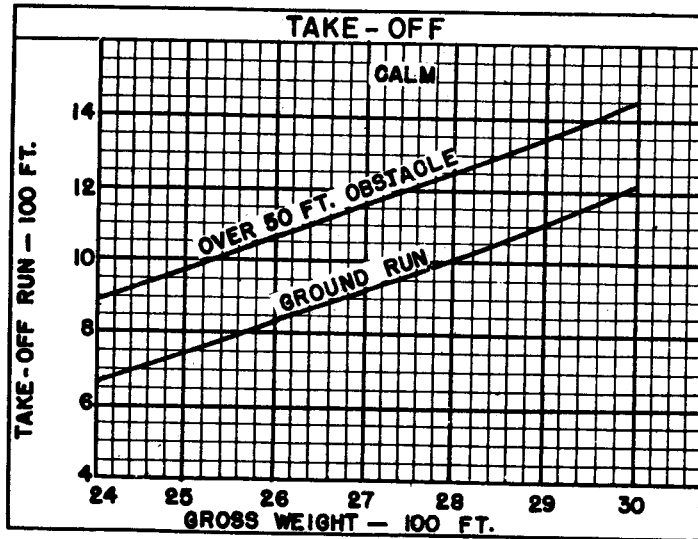
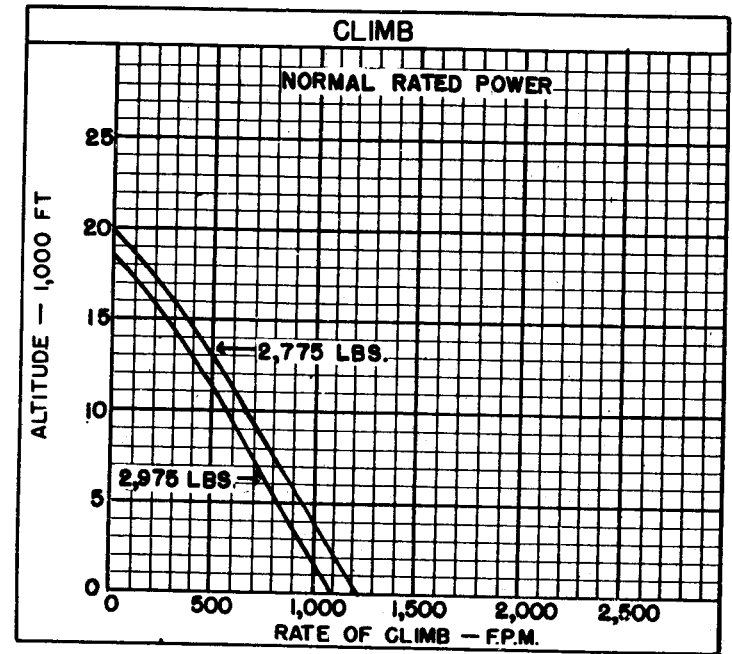
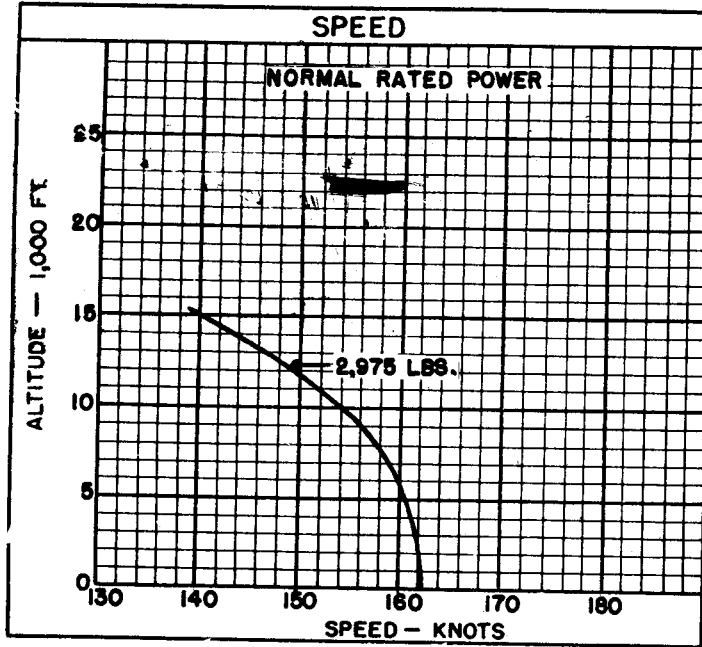
NOTES

(A) Normal Rated Power

Performance basis: Flight test of the T-34A airplane.

Range based on flight test fuel consumption data increased by 5%.

4



○ LOADING CONDITION COLUMN NUMBER

NOTES

RANGE PROBLEM - TRAINER

WARM-UP, TAKE-OFF, ACCELERATION: 5 minutes at normal rated power at sea level
CLIMB: To 5,000 feet with normal rated power.
CRUISE: At speed for long range at 5,000 feet.
RESERVE: 20 minutes at speed for long range at sea level plus 5% of initial fuel load.

