

1. Input Numbers in top section

- a) A/C Basic Weight and Moment (Ref 1)
- b) Crew weight and moment (Ref 3) (Arm 129)
- c) Crew baggage (Ref 4) (Arm 152)

2. Add top section. Total = Operating Weight (Ref 9)

3. Input passengers and cargo (Ref 13)

- a) Enter Weight and Arm (Use Standard or Alternate Seating. Figure 21-3 sheet 1 of 4)
- b) Enter Weight and moment for pax and cargo on right (Moment = Weight x Arm)

4. Add Pax and Cargo = Total Payload (Ref 15)

5. Add Operating Weight and Pax and Cargo Weights and Moments

- a) Oper Wt (Ref 9) + Total payload (Ref 15) = Zero Fuel Weight (Ref 21)

6. Subtract Zero Fuel Weight from 9650 (Max T/O)

- a) The result will be the allowable weight remaining for fuel

7. Enter the fuel weight (Ref 10)

- a) Use Fuel weight chart to find gallons (Fig 25-11)
- b) Write gallons to the left of the weight at Ref 10
- c) Use the Useful Fuel Arms Chart (Fig 21-3 sheet 4) to find the fuel arm based on ___ gallons (write the arm in top left empty space)
- d) Multiply the Arm you found x Weight = Fuel Moment (Ref 10 moment column)

8. Add Operating Weight + T/O Fuel = Ref 12

9. Add Ref 12 + Ref 15 = Takeoff Condition (Ref 16)

10. Moment / weight = Arm or CG (Ref 17)

WEIGHT AND BALANCE CLEARANCE FORM - TRANSPORT

FOR USE WITH T.O. 1-18-40, AIRVAIR Form Approval 01-18-40, AND 78-55-1500-54523

THIS FORM IS TO BE USED FOR THE COLLECTION OF INFORMATION TO BE USED IN DETERMINING THE WEIGHT AND BALANCE OF AN AIRCRAFT. IT IS NOT TO BE USED FOR THE PURPOSE OF DETERMINING THE WEIGHT AND BALANCE OF AN AIRCRAFT. IT IS NOT TO BE USED FOR THE PURPOSE OF DETERMINING THE WEIGHT AND BALANCE OF AN AIRCRAFT.

1. AIRCRAFT MAKE AND MODEL: _____

2. AIRCRAFT TYPE: _____

3. AIRCRAFT REGISTRATION NO.: _____

4. OPERATING WEIGHT: _____

5. TAKEOFF WEIGHT: _____

6. WEIGHT AND BALANCE CLEARANCE OFFICER: _____

7. DATE: _____

8. SIGNATURE: _____

9. TITLE: _____

10. ORGANIZATION: _____

11. LOCATION: _____

12. COMMENTS: _____

NO.	DESCRIPTION	WEIGHT	ARM	MOMENT
1	Basic Aircraft Weight (Ref 1)			
2	Crew (Ref 3)			
3	Crew Baggage (Ref 4)			
4	Crew's Baggage			
5	Stowage Equipment			
6	Emergency Equipment			
7	Extra Equipment			
8	Operating Weight			
9	Passengers (Ref 13)			
10	Passenger Baggage			
11	Water (Ref 13)			
12	Total Aircraft Weight			
13	Operating Weight			
14	Zero Fuel Weight			
15	Maximum Takeoff Weight			
16	Weight Remaining for Fuel			
17	Fuel Weight			
18	Takeoff Weight			
19	Operating Weight			
20	Weight and Balance Clearance Officer			
21	Signature			
22	Date			
23	Organization			
24	Location			
25	Comments			

Fig 26-4

T/O DISTANCE 1375

Fig 26-3

MIN. T/O PWR 1315 ^{hp}

Fig 26-5

ACCEL/STOP DISTANCE 3400 + 900 = 4300

Fig 26-4

TAKEOFF

Vr 90 ^{Rotation}

V2 101 ^{50' obstacle}

GROSS WT 9400

CG 156.4

ACCEL/GO DISTANCE 1570

Fig 31-1

LANDING

GROSS WEIGHT

FINAL APPROACH SPEED

STOPPING DISTANCE

No reverse

Stopping distance factor

$1070 + 900 = 1970 \times 1.1 = 2167$

Performance Planning Card

AP007403

TOLD Card Calculations (Take-off)

21. Enter Gross Wt. and CG from Form F (Ref 16, 17)
22. Determine T/O Distance
 - a) Fig 26-4
23. Enter Vr and V2 from chart on top of Fig 26-4
24. Determine Min T/O Power
 - a) Fig 26-3
25. Determine Accel/Stop Dist.
 - a) Fig 26-5
 - b) Use no reverse (Note 3)
26. Determine Accel/Go Dist
 - a) Fig 26-6
27. Enter Landing Gross Wt. from Form F (Ref 24)
28. Determine Stopping Distance (Fig 31-1)
 - a) Use no reverse (note 3)
 - b) Multiply by stopping distance factor (Fig 31-2)
29. Enter Final Approach Speed from chart on top of Fig 31-1

30

20 G 30