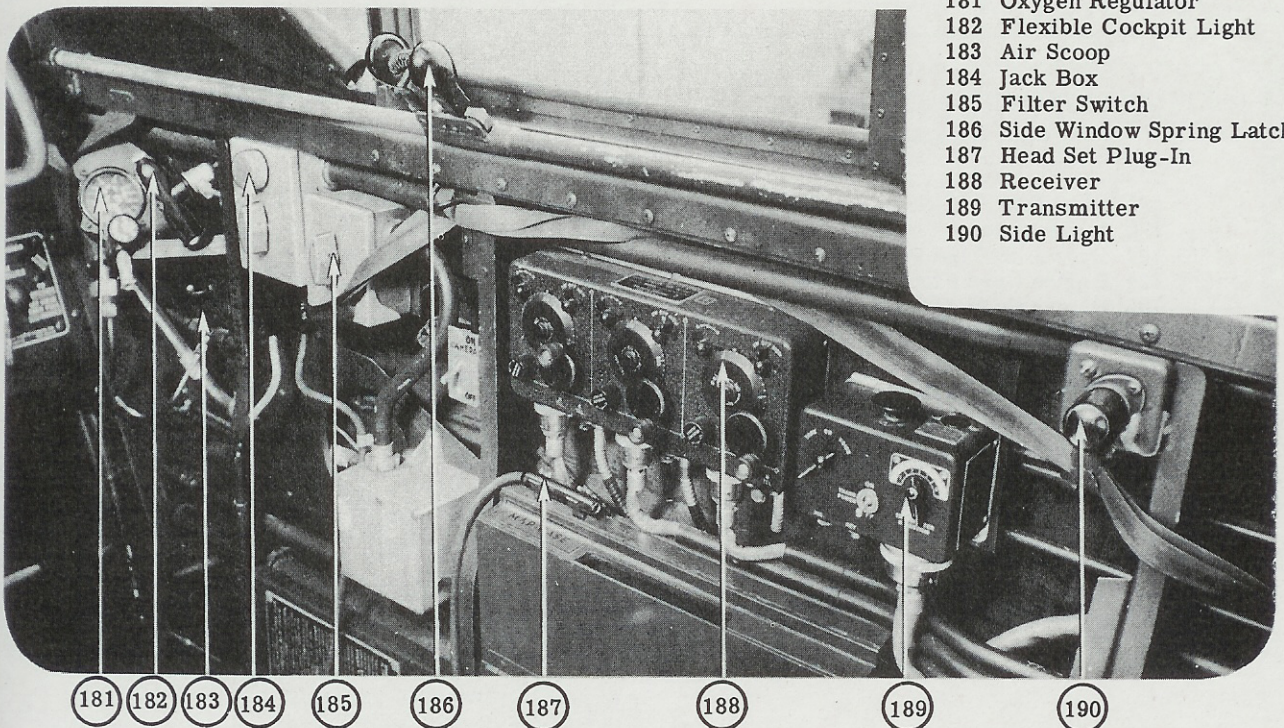


- 172 Filter Switch
- 173 Jack Box
- 174 Side Window Spring Latch
- 175 Radio Compass Control
- 176 Flexible Cockpit Light
- 177 Oxygen Regulator
- 178 Side Light
- 179 Heater Air-Flow Control Handle
- 180 Head Set Plug-In Cord

Figure 19 - Pilot's Compartment (Left Side)

Figure 20 - Pilot's Compartment (Right Side)



- 181 Oxygen Regulator
- 182 Flexible Cockpit Light
- 183 Air Scoop
- 184 Jack Box
- 185 Filter Switch
- 186 Side Window Spring Latch
- 187 Head Set Plug-In
- 188 Receiver
- 189 Transmitter
- 190 Side Light

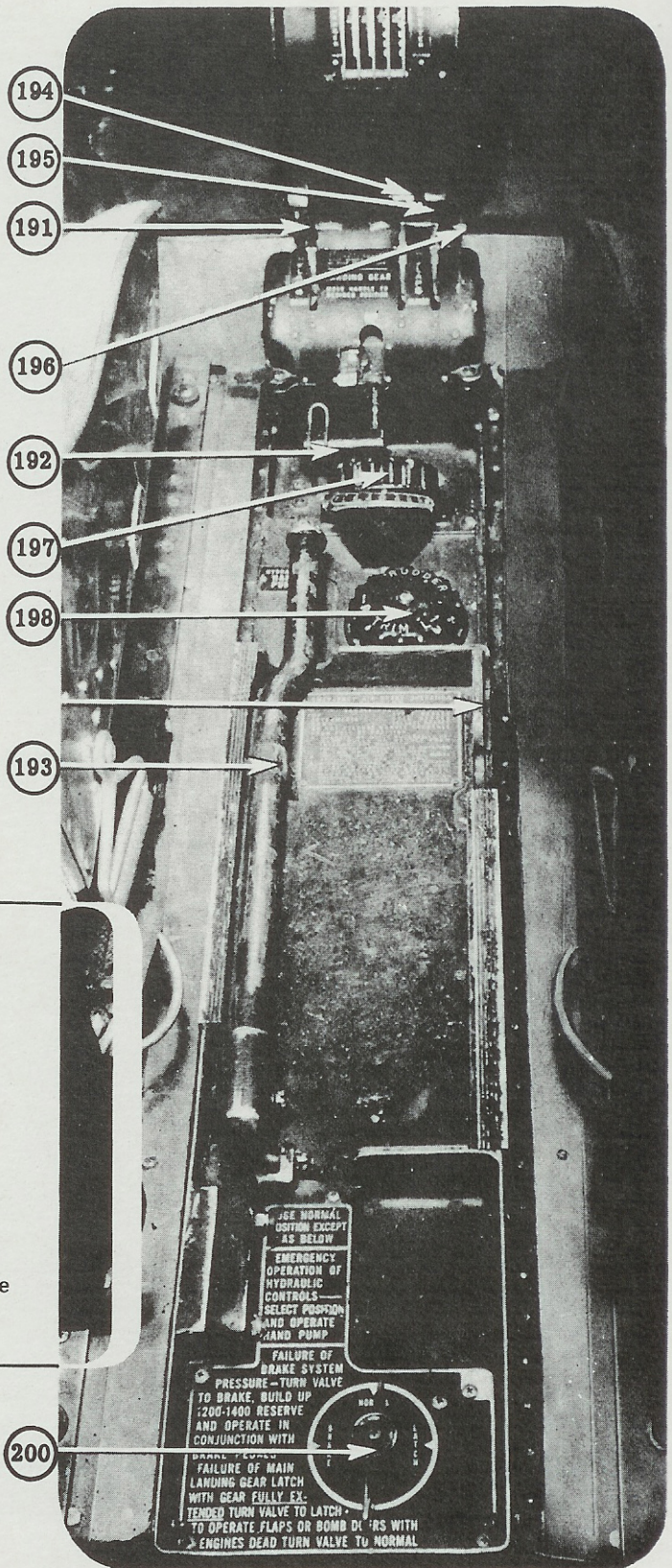
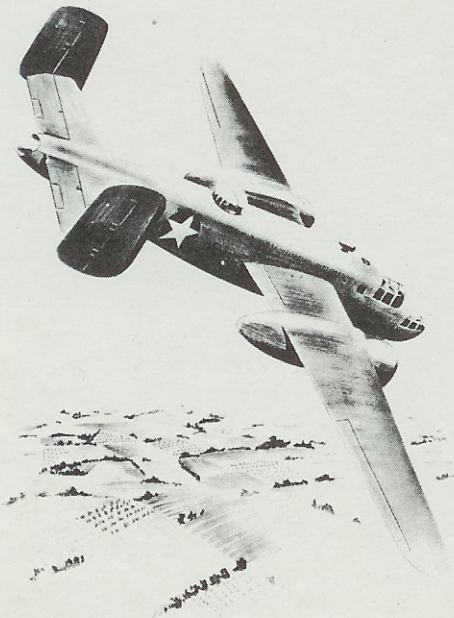


Figure 21 - Floor Controls Between Pilot and Copilot

- ★ 191 Wing Flaps
- ★ 192 Landing Gear
- ★ 193 Hydraulic Hand Pump
- 194 Engine Cowl Flaps
- 195 Engine Cowl Flaps
- 196 Control Lock
- 197 Aileron Trim
- 198 Rudder Trim
- 199 Emergency Air Brake
- 200 Emergency Hydraulic Selector Valve

PilotCopilot3. STARTING ENGINE.

- a. Check with navigator to see that battery disconnect, generator-ignition safety, and active inverter switches are "ON."

b. Set booster pump switch (figure 18-166) to "ON" (fuel pressure 6 to 7 lb/sq in. (.4 to .5 kg/sq cm).

c. Turn on engine primer switch (figure 18-168); prime 3 to 5 seconds if cold; 2 seconds if hot.

d. Set fire extinguisher switch (figure 16-144) to "ON."

- (1) If engine fails to start due to cold, instruct a crew member or a member of the ground crew to use hand crank. Then press engaging switch (figure 18-171) to "ON," followed by pressing energizing switch (figure 18-170) to "ON;" then hold both switches "ON."

e. Prime while engaging as required.

4. ENGINE WARM-UP.

a. As engine starts, check oil pressure gage (figure 16-125); if not 40 lb/sq in. (2.8 kg/sq cm) after 30 seconds, stop engine and investigate. Warm engine at 1200 rpm until oil temperature shows a definite increase and the oil pressure remains steady when throttle is opened.

b. Set booster pump switch (figure 18-166) "OFF" (fuel pressure 6 to 7 lb/sq in. (.4 to .5 kg/sq cm).

c. Open oil cooler shutter controls (figure 17-151) to oil temperature of 40^o degrees C (104 degrees F).

d. Check elevator trim tab control. (See figure 17-145.)

e. Check aileron trim tab control. (See figure 21-197.)

f. Check rudder trim tab control. (See figure 21-198.)

g. See that wing flap control handle (figure 17-148) is in "CLOSE" position.

h. Check each magneto at 1800-2000 rpm by momentarily turning each ignition switch off in turn; maximum manifold pressure 27 to 31.5 in. Hg (68.6 to 80 cm Hg)(maximum rpm drop 75). If drop is greater, run at same rpm for 15 seconds and recheck.

i. At 1600 rpm have navigator check voltmeter (figure 23-225) at 28 to 28.5 and the ammeter (figure 23-223) 40 to 60 maximum.

5. EMERGENCY TAKE-OFF.

- a. If the engines were properly diluted (figure 16-135) when previously stopped, no trouble should be experienced in maintaining oil pres-

PilotCopilot

sure of 80 to 90 lb/sq in. (5.6 to 6.3 kg/sq cm). Then proceed with normal take-off.

6. ENGINE AND ACCESSORIES GROUND TEST.

- b. Check flight controls for free and proper movement, and watch control surfaces for correct response.
- c. Check de-icer control (figure 16-98) "OFF."
- d. Check with crew to see hatches are closed and that lower turret is retracted.
- e. Check with navigator on fuel level gages.
- f. Check suction (figure 16-115): 3.75 to 4.25 in. Hg (9.53 to 10.8 cm Hg).

- a. See that automatic pilot or automatic flight control equipment (figure 16-114) is caged "OFF."

- g. Check hydraulic pressure (figure 16-122) at 800 to 1100 lb/sq in. (56.2 to 77.3 kg/sq cm).
- h. Check brake pressure (figure 16-123): 1000 to 1200 lb/sq in. (70.3 to 84.3 kg/sq cm).
- i. Fuel booster pumps (figure 18-163) "ON." Fuel pressure 6 to 7 lb/sq in. (.4 to .5/sq cm).
- j. Propeller controls (figure 18-165) at "INCREASE RPM" (locked snug).
- k. Mixture controls (figure 18-167) at "FULL RICH" (locked snug).
- l. Supercharger controls (figure 17-146) "LOW" (locked).
- m. Oil cooler shutters (figure 17-151) "OPEN."
- n. Carburetor air (figure 16-141) "NORMAL" or "ICING CONDITIONS" as required.
- o. Cowl flaps (figure 17-149) "OPEN" (control neutral).
- p. Emergency air brake (figure 21-199) safetied by wire in down position.
- q. Emergency hydraulic selector valve (figure 21-200) "NORMAL."

- r. Check with navigator to see that emergency fuel shut-off valves (figure 23-227) are "ON."
- s. Check with navigator to verify heater switch (figure 22-212) "OFF."

7. PREFLIGHT CHECK.

- a. Check flight controls for free and proper movement, and watch control surfaces for correct response.
- b. Check for position of elevator, aileron and rudder trim tabs.
- c. Wing flaps (figure 17-148) 20 degrees down (control neutral).

- t. Uncage gyro instruments. (See figure 16-114.)

PilotCopilot

(1) For best obstacle clearance on short run set flaps 30 degrees down.

8. TAKE-OFF.

- a. Do not turn on heater during take-off.
- b. Propeller controls (figure 18-165) increase rpm (locked snug).

- c. Engine rpm 2600 maximum and manifold pressure (figure 16-117) 44 in. Hg (111.8 cm Hg). Maximum time 1 minute (lock throttle snug).
- d. Landing gear retracted only on definite signal from pilot.
- e. Fuel pressure (figure 16-118) 6 to 7 lb/sq in. (.4 to .5 kg/sq cm).
- f. Cylinder temperature (figure 16-121) 160 degrees C minimum to 260 degrees C maximum (320 degrees F minimum to 500 degrees F maximum for 5 minutes).
- g. Oil pressure (figure 16-125) 80 to 90 lb/sq in. (5.6 to 6.3 kg/sq cm).
- h. Oil temperature 40 degrees C (104 degrees F) minimum 95 degrees C (203 degrees F) maximum.

i. Refer to "Take-off, Climb and Landing Chart."

9. ENGINE FAILURE DURING TAKE-OFF.

- a. Move mixture control (figure 18-169) to "IDLE CUT-OFF" and cut the ignition switch of dead engine.

b. If bomb bay droppable tank is installed, release immediately if sufficient altitude has been attained to open and close bomb doors. (See figure 16-102.)

c. Put nose of airplane down and make belly landing.

- d. Do not lower landing gear or nose wheel.
- e. If bombs are being carried do not release.

10. CLIMB.

- a. Landing gear (figure 21-192) "UP."
- b. Manifold pressure (figure 16-117) 38 in. Hg (96.5 cm Hg); maximum below 11,000 ft (3350 meters). 39 in. Hg (99.1 cm Hg); maximum above 11,000 ft (3350 meters).
- c. Engine rpm 2400 maximum.
- d. Fuel pressure (figure 16-118) 6 to 7 lb/sq in. (.4 to .5 kg/sq cm).
- e. Cylinder temperature (figure 16-121) 260 degrees C (500 degrees F) maximum for 15 minutes.
- f. Oil pressure (figure 16-125) 80 to 90 lb/sq in. (5.6 to 6.3 kg/sq cm).

Pilot

- i. Carburetor air (figure 16-141) "NORMAL" or "ICING CONDITIONS" as required.
- j. Supercharger: "LOW" below 11,000 ft (3350 meters); "HIGH" above 11,000 ft (3350 meters). Shift from low to high at 1400 to 2400 rpm.
- k. Wing flaps (figure 17-148) "UP"; cowl flaps (figure 17-149) "OPEN" (controls neutral).

11. FLIGHT OPERATION.

CAUTION: Do not allow one fuel tank to run completely dry before switching to another tank.

- (5) Mixture fuel (figure 18-167) "RICH."
- (6) Supercharger "LOW" below 13,000 ft (4000 meters); "HIGH" above 13,000 ft (4000 meters). Shift from "LOW" to "HIGH" at 1400 to 2400 rpm.
- (8) Carburetor air "NORMAL" or "ICING CONDITIONS" as required.

NOTE: Consult Automatic Pilot Check-Off list if airplane is so equipped.

12. ENGINE FAILURE DURING FLIGHT.

The minimum controllable speed with one engine at rated power is 140 mph, indicated. If the speed drops below 140 mph, the application of

Copilot

- g. Oil cooler shutters (figure 17-151) "OPEN." Oil temperatures 95 degrees C (203 degrees F) maximum. (See figure 16-119.)
- h. Mixture (figure 18-167) "FULL RICH."

a. Cruising.

- (1) Engine rpm maximum and manifold pressure 31.5 in. Hg (80 cm Hg) maximum.
- (2) Fuel pressure 6 to 7 lb/sq in. (.4 to .5 kg/sq cm). Fuel booster pumps "ON" as required to maintain 6 to 7 lb/sq in. (.4 to .5 kg/sq cm) fuel pressure.
- (3) Oil pressure 80 to 90 lb/sq in. (5.6 to 6.3 kg/sq cm).
- (4) Check suction 3.75 to 4.25 in. Hg (9.53 to 10.8 cm Hg).
- (7) Adjust oil cooler shutters to obtain 60 degrees C to 85 degrees C (140 degrees F to 185 degrees F).
- (9) Wing flaps and landing gear "UP" (flap control "NEUTRAL").
- (10) Cowl flaps closed or open as required (control neutral). Cylinder temperature 205 degrees C (401 degrees F) maximum.
- (11) Check volts 28 to 28.5; Amperes 40 to 60 maximum.

PilotCopilot

full power on the single engine causes the airplane to yaw. Airplane should be dived at reduced power to attain proper speed. Adjust rudder trim tab to counteract loss of engine thrust and fly the airplane with the dead engine high.

13. EMERGENCY CREW EXITS. (See section X.)14. APPROACH, LANDING, AND CROSS-WIND LANDING.a. Landing.

- (2) Set de-icer control (figure 16-98) "OFF."
- (4) Verify that lower gun turret is retracted.
- (5) Check fuel levels with navigator.

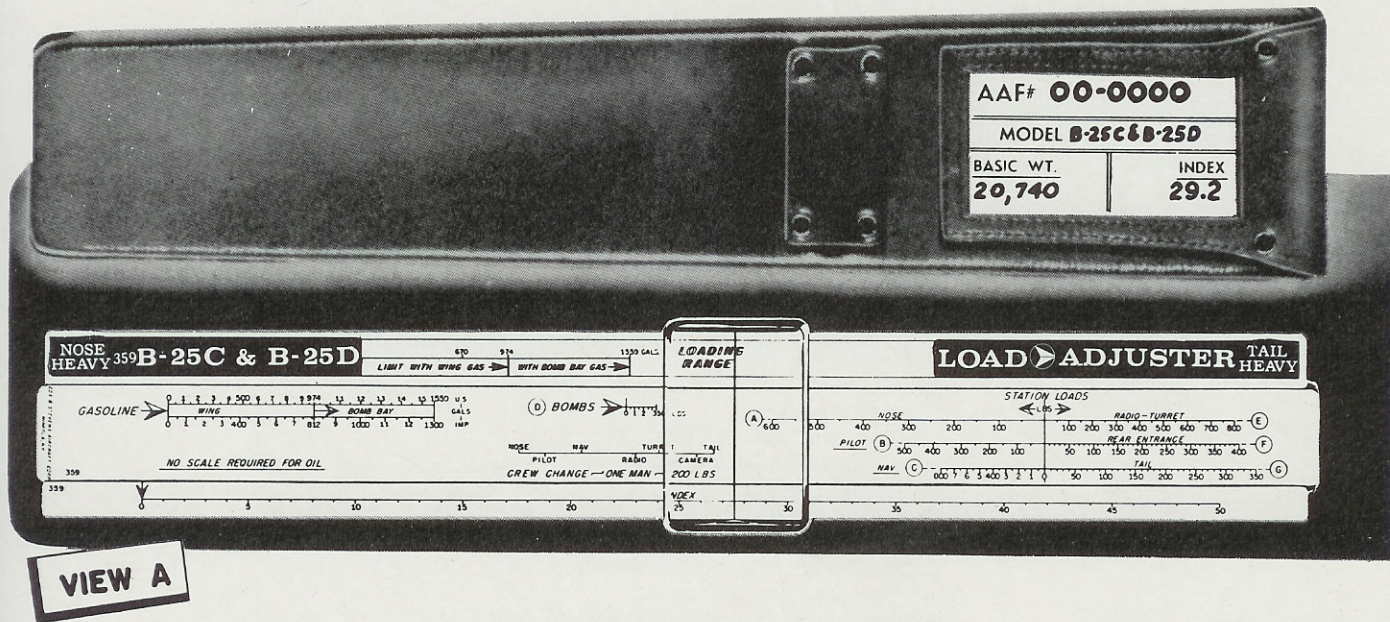
- (16) Check with navigator that heater control (figure 22-212) is "OFF."

CAUTION: If landing is not made, do not raise flaps until sufficient altitude and speed are obtained.

b. Emergency Operation of Landing Gear and Flaps.

- (1) Order navigator to lower nose gear.
- (2) At request of navigator, retard throttle momentarily to see that nose gear is locked

- (1) Turn automatic pilot (figure 16-114) "OFF."
- (3) Cage gyro instruments. (Figure 16-114.)
- (6) Check hydraulic pressure (figure 16-122) at 800 to 1000 lb/sq in. (52.6 to 77.3 kg/sq cm).
- (7) Check brake pressure (figure 16-123) at 1000 to 1200 lb/sq in. (70.3 to 84.3 kg/sq cm).
- (8) Check fuel booster pumps (figure 18-166) both "ON."
- (9) Set propeller (figure 18-165) at 2100 rpm.
- (10) Set mixture controls (figure 18-169) "FULL RICH."
- (11) Lock supercharger control (figure 17-147) at "LOW."
- (12) Oil cooler shutters (figure 17-151) "OPEN."
- (13) Cowl flaps (figure 17-149) "CLOSED" (control neutral).
- (14) Set landing gear (figure 21-192) "DOWN" and lock. Air speed should be less than 170 mph (148 knots) when lowering landing gear. Check operation by indicator (figure 16-111) and warning horn.
- (15) Safety emergency brake control (figure 21-199) with pressure at 400 to 425 lb/sq in. (28.1 to 29.9 kg/sq cm).
- (17) Set wing flaps (figure 17-148) "DOWN" (control neutral). Do not exceed 170 mph (148 knots).



VIEW A

17. Instructions for Use of Load Adjuster.

a. Airplane Loading. - Check and sign the weight and balance clearance prepared by the ground loading personnel. This may be rapidly and accurately accomplished by using a load adjuster (view A). The following instructions and sample loading problem are published as condensed instructions for the information and guidance of all personnel using a load adjuster to determine change in balance from the basic airplane to the loaded airplane as flown, and to insure that the weight distribution of all items loaded above and beyond the basic airplane weight and balance will not produce a weight and balance condition beyond permissible limits.

b. Application of Load Adjuster. - A load adjuster and carrying case for the models B-25C and B-25D airplanes will be found located on a mounting hook adjacent to the data case. Pick up the instrument and ascertain that the serial number for the airplane being loaded is identical with the serial number inscribed on the carrying case identification card (view A).

CAUTION: The airplane model designation stamped on every load adjuster indicates that the instrument may be used for balance calculations on any AAF airplane of that particular model. However, the index figure entered on the carrying case identification card is correct only for the specific airplane serial number printed directly above, and represents the balance moment of only that one individual basic airplane.

c. Operating Instructions.

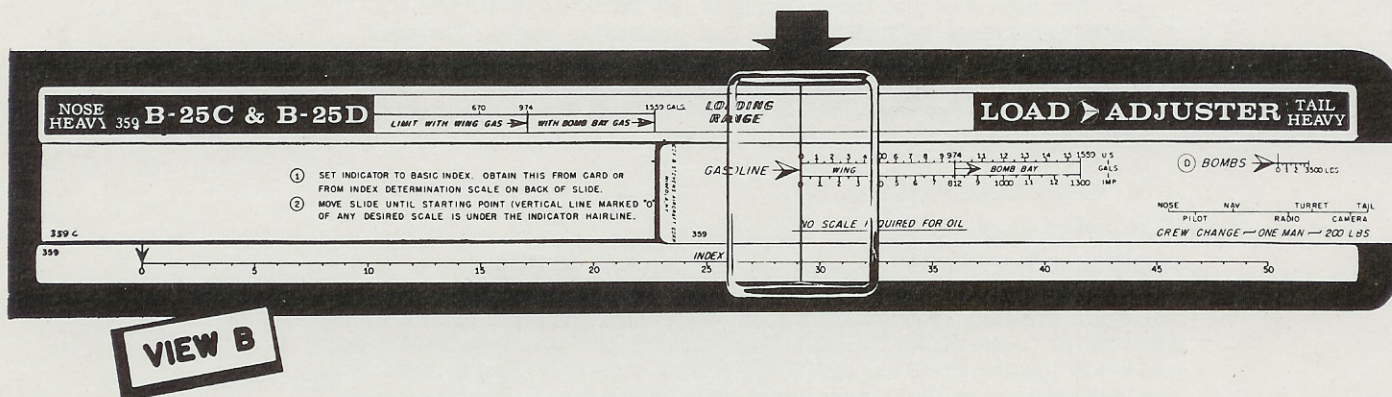
(1) The following sample loading problem is itemized in detail, and complete instructions with supporting illustrations are published to furnish the Service with complete instructions on loading aircraft above and beyond the basic airplane (including personal items and all items commonly referred to as "expendable" items) are to be taken into consideration for each and every loading problem, and their balance moments must be added with the load adjuster on the compartment scale where they are to be located.

(a) Given:

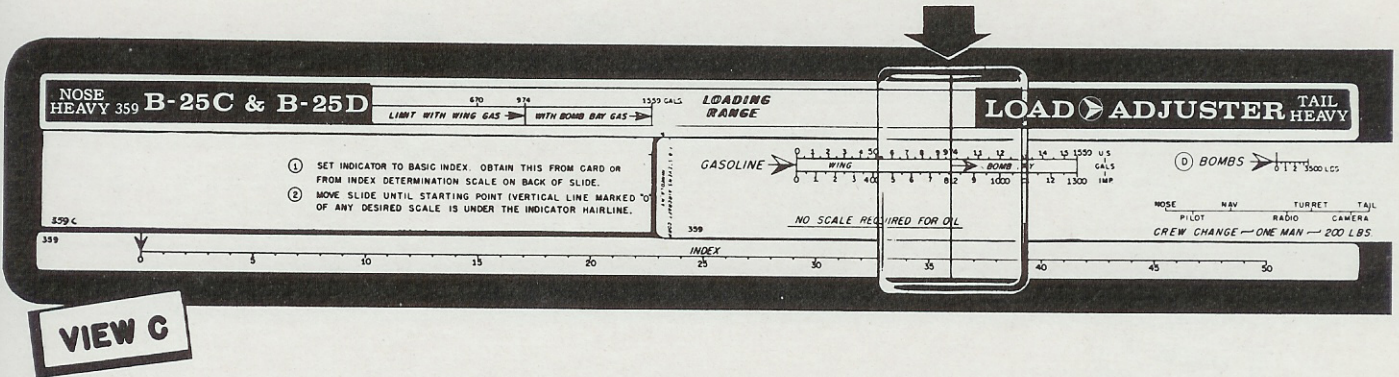
<u>Item</u>	<u>Sub-Total</u>	<u>Total</u>
Basic Airplane		20,740
Gasoline (974 U.S. gal - 812 Imp. gal)		6,744
Oil (42 U.S. gal - 35 Imp. gal)		315
Bombs (Bomb Bay)		3,500
Nose Compartment		525
Bombardier	200	
Special Equipment	300	
Handbook Data	25	
Pilots' Compartment		450
Brief Cases (2)	50	
Pilots (2)	400	
Navigator's Compartment		650
Navigator	200	
Crew Chief	200	
Special Equipment	200	
Navigational and Handbook Data	50	
Radio-Turret Compartment		800
Radio Operator	200	
Gunner	200	
Special Equipment	100	
Ammunition (1000 rd of .50 cal)	300	
Rear Entrance Compartment		400
Photographic Equipment and Supplies	125	
Photographer	200	
Brief Cases (3)	75	
Tail Compartment		125
GROSS WEIGHT		34,249

(b) To Find: If the load distribution brings the airplane balance within permissible cg limits as indicated on the load adjuster "loading range" scale.

(2) Set indicator hairline on basic airplane index 29.2 (obtain from identification card on the load adjuster carrying case), and move slide to the zero mark on the "GASOLINE" scale as shown in view B.

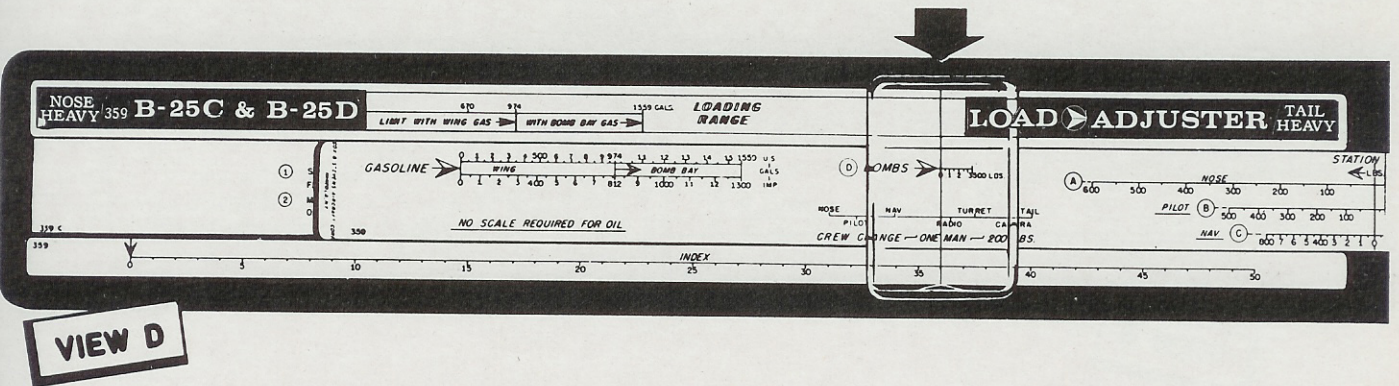


Move indicator until the hairline is over 974 on the top (U.S.) edge of the scale. This adds the balance moment of 974 gallons of gasoline as loaded in the airplane's wing tanks and moves the index to 36.0 as shown in view C.

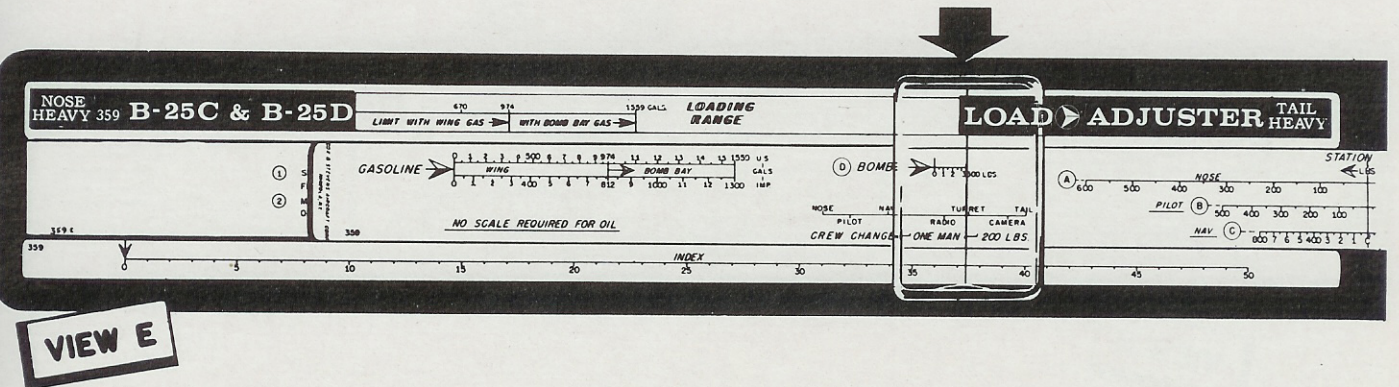


(3) No oil scale is necessary as the oil tank is located adjacent to the best cg.

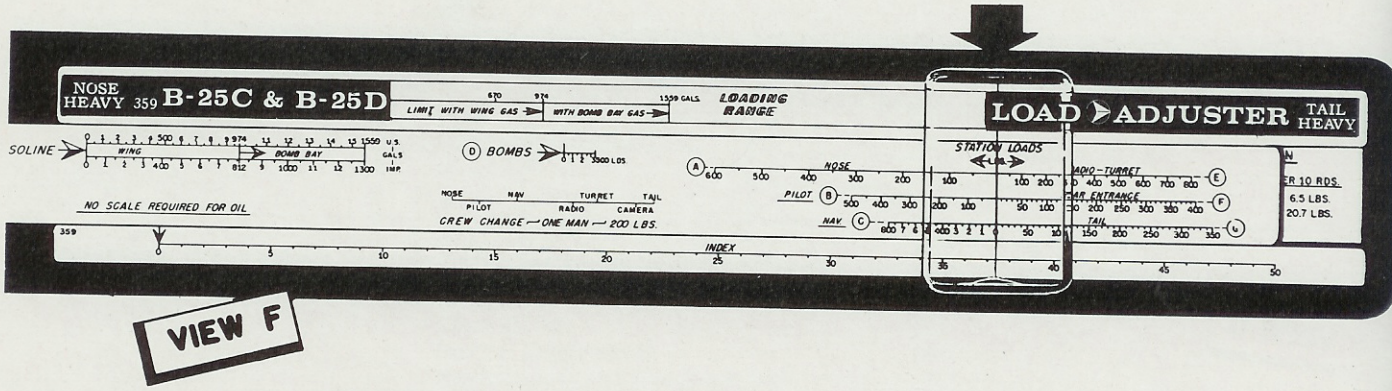
(4) Set slide to the zero mark on the "BOMBS" scale as illustrated in view D.



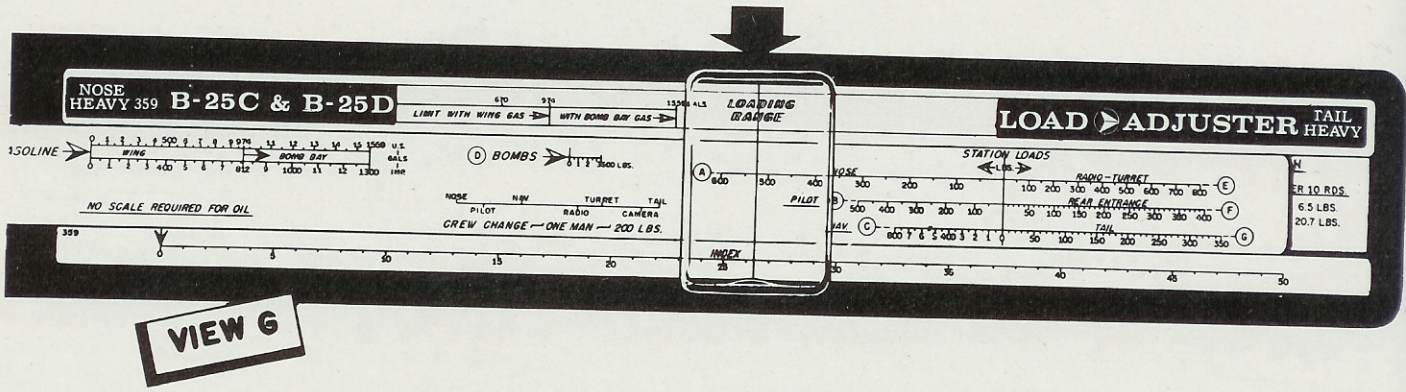
Move indicator until the hairline is over 3500 on the scale. This adds the balance moment of 3500 pounds of bombs as loaded in the bomb bay and moves the index to 37.4 as illustrated in view E.



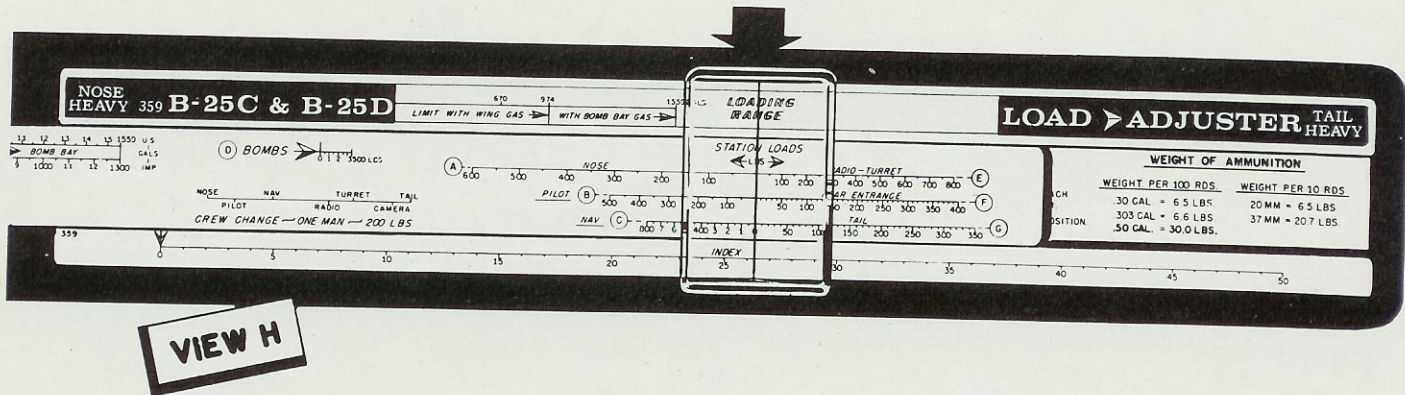
(5) Set slide to the compartment ("STATION LOADS") zero mark as illustrated in view F.



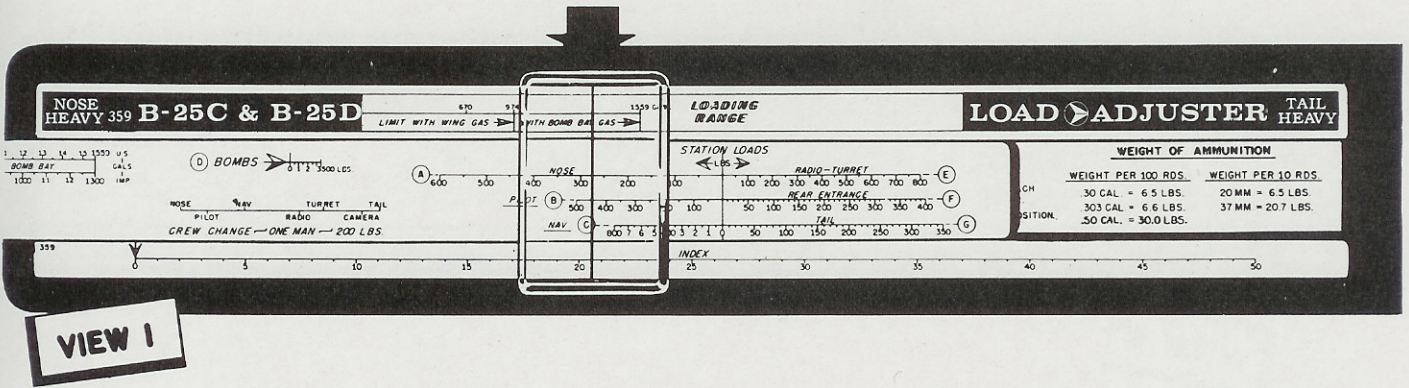
Move indicator until the hairline is over 525 on the "NOSE" scale. This adds the balance moment of the items that were loaded in that compartment and moves the index to 26.4 as illustrated in view G.



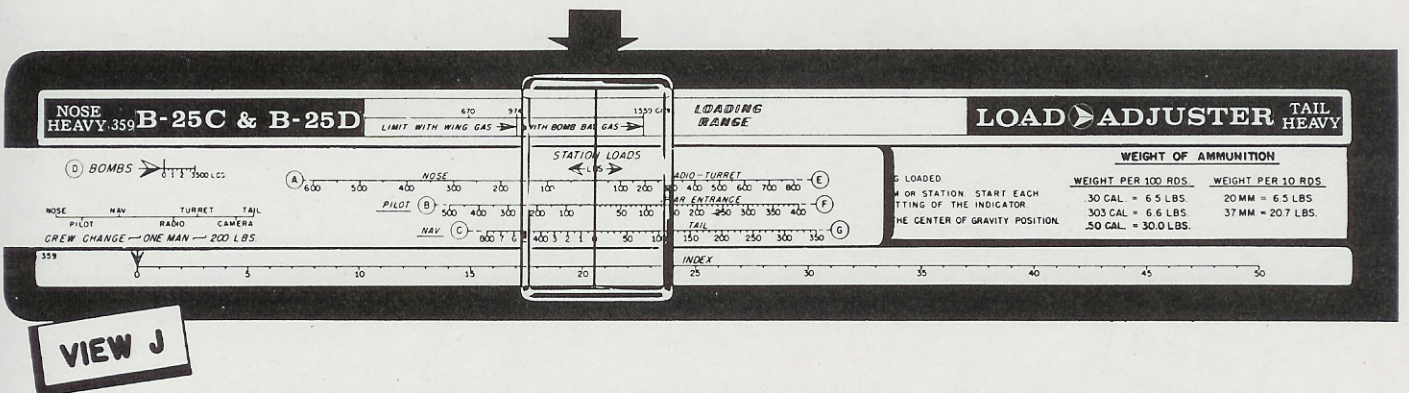
(6) Set slide to the compartment zero line as illustrated in view H.



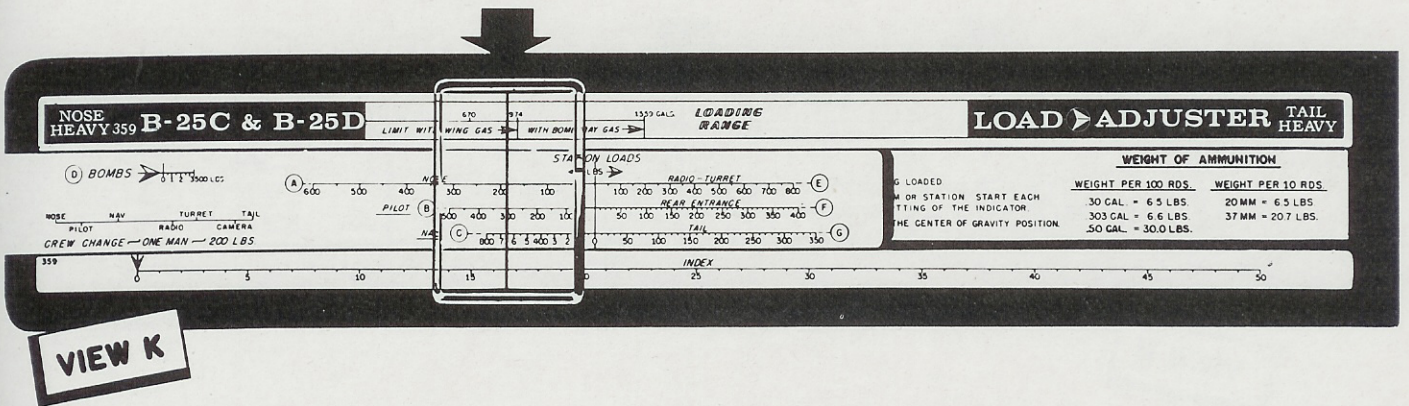
Move indicator until the hairline is over 450 on the "PILOT" scale. This adds the balance moment of the two pilots and their brief cases in the airplane and moves the index to 20.6 as illustrated in view I.



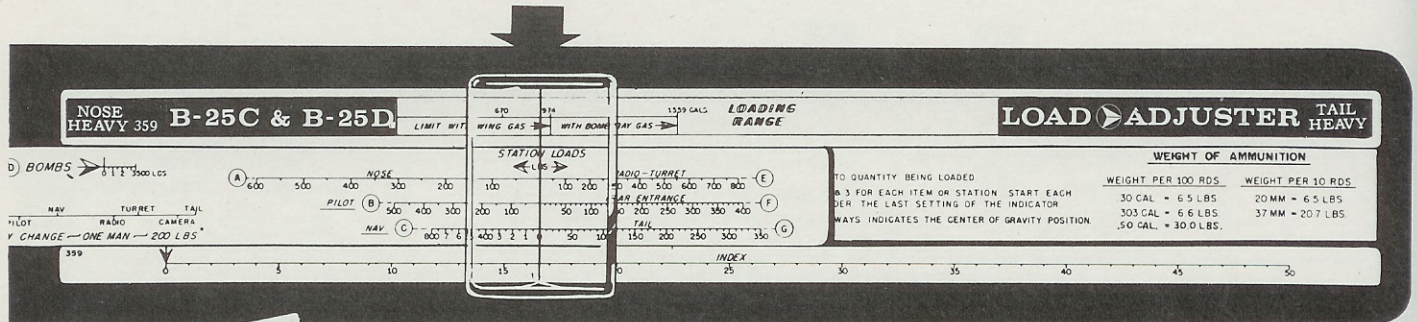
(7) Set slide to the compartment zero line as shown in view J.



Move indicator until the hairline is over 650 on the "NAV." scale. This adds the balance moment of two men, 200 pounds of special equipment and 50 pounds of navigational and Handbook data as loaded in the airplane and moves the index to 16.6 as shown in view K.

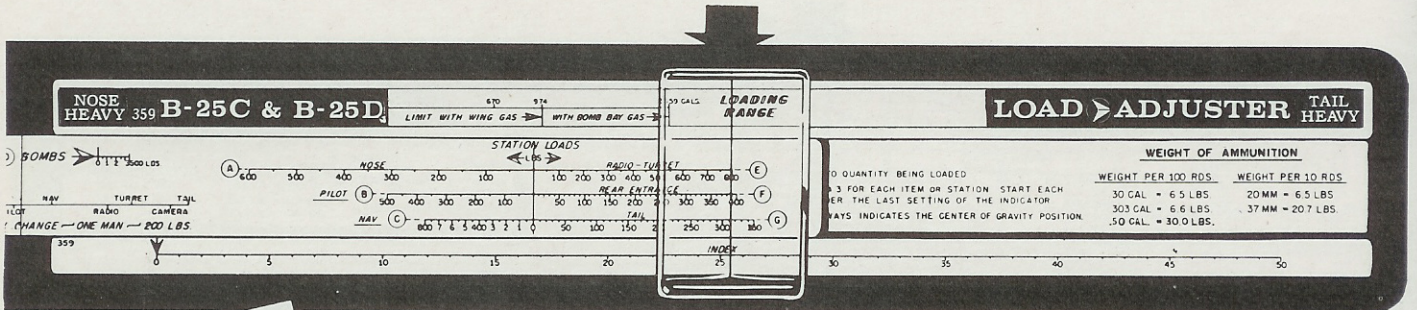


(8) Set slide to the compartment zero line as shown in view L.



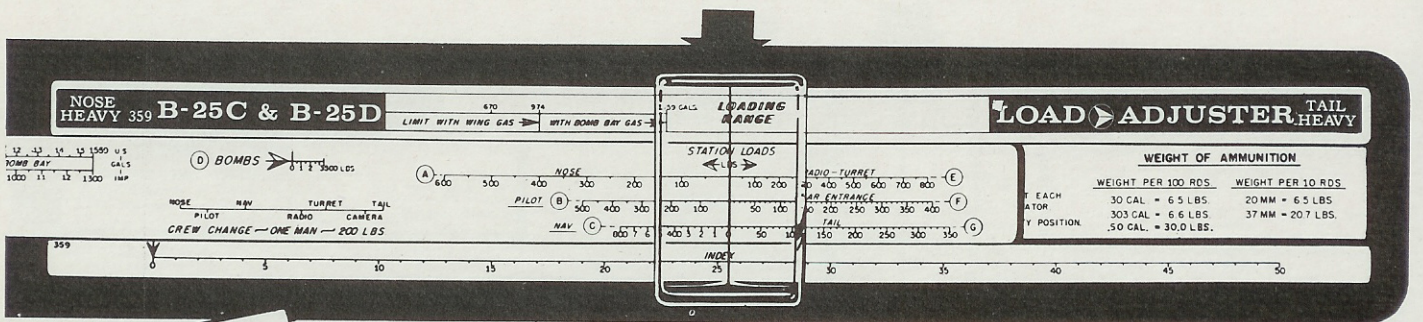
VIEW L

Move indicator until the hairline is over 800 on the "RADIO-TURRET" scale. This adds the balance moment of two men, special equipment and ammunition as loaded in this compartment and moves the index to 25.5 as shown in view M.



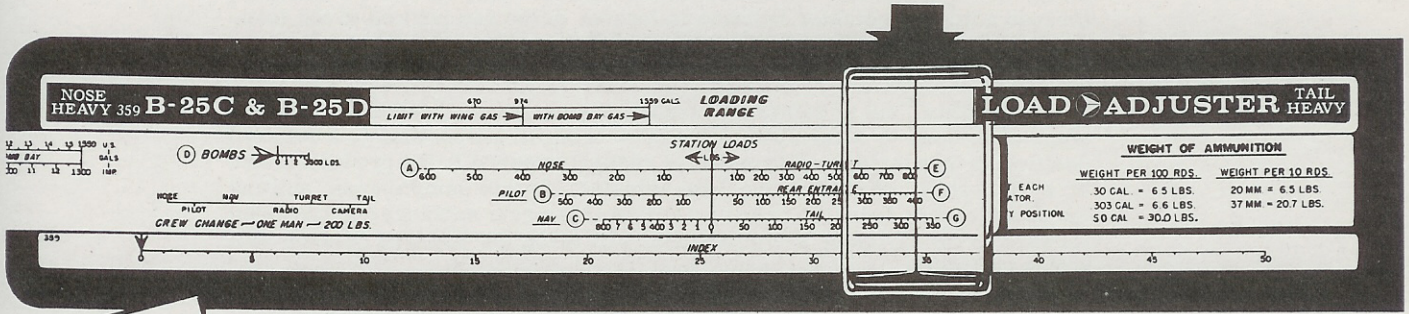
VIEW M

(9) Set slide to the compartment zero line as illustrated in view N.



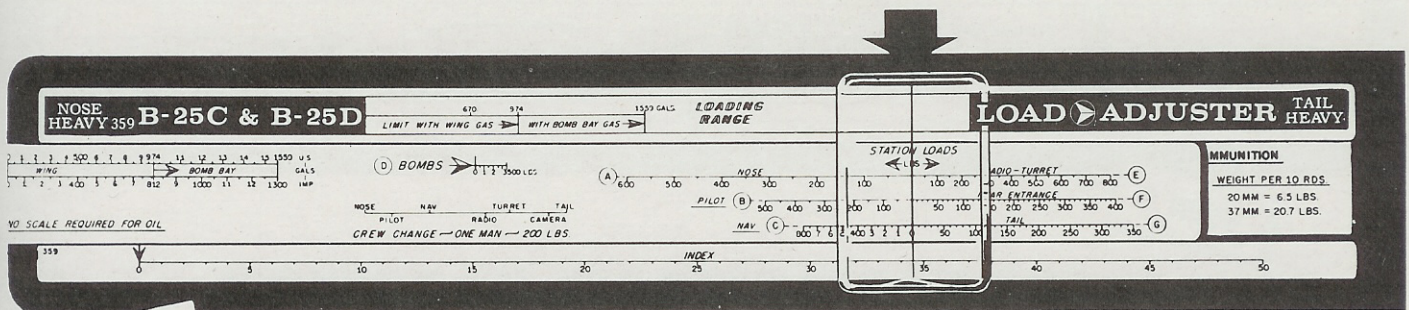
VIEW N

Move indicator until the hairline is over 400 on the "REAR ENTRANCE" scale. This adds the balance moment of photographic equipment and supplies, the photographer and brief cases as loaded in that compartment and moves the index to 34.5 as illustrated in view O.



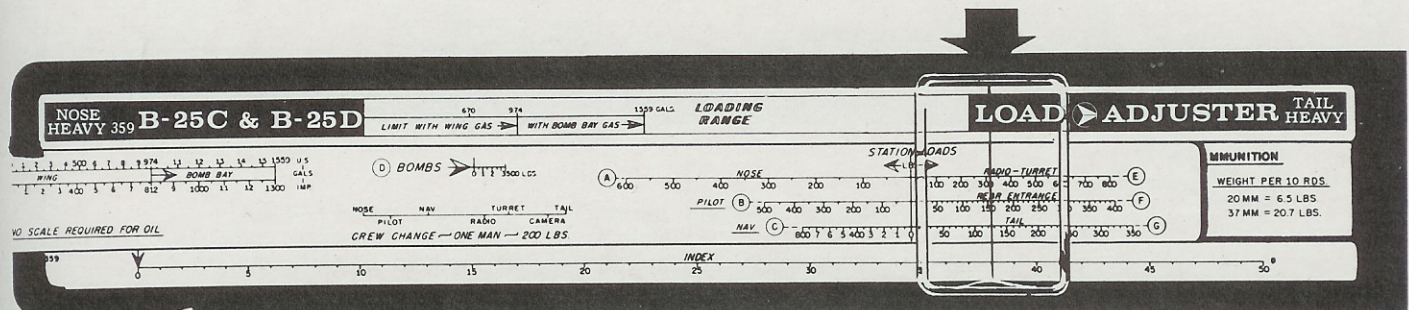
VIEW O

(10) Set slide to the compartment zero line as shown in view P.



VIEW P

Move indicator until the hairline is over 125 on the "TAIL" compartment scale. This adds the balance moment of 125 pounds of equipment as loaded in the tail compartment and completes calculation of the balance moments of all items as initially loaded in the airplane. It has moved the airplane index to 38.0 as shown in view Q.



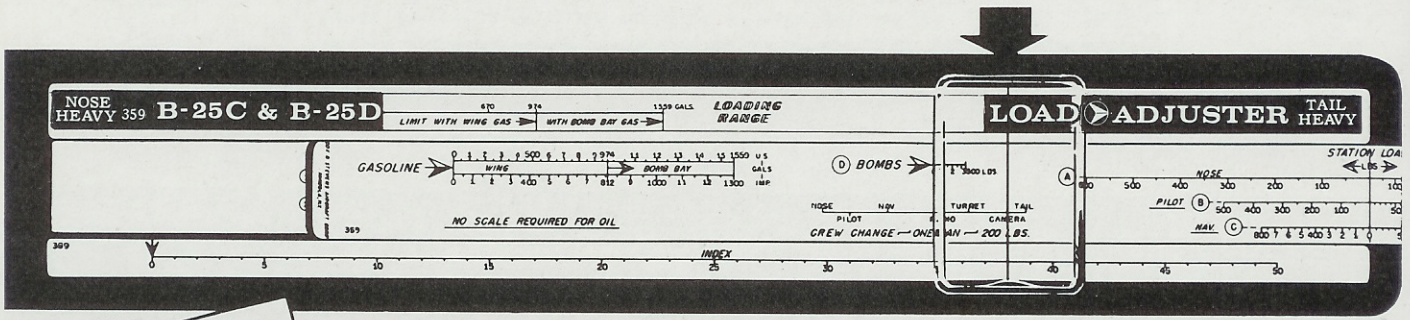
VIEW Q

(11) Balance Correction.

(a) Adding the weights of all items loaded (paragraph 1.c. of this section) shows the gross load of the airplane well within allowable limits, and, as far as weight alone is concerned, the airplane may be flown. However, the load adjuster indicator hairline is located in the red portion of the loading range which ABSOLUTELY PROHIBITS any attempt to fly the airplane because of a dangerous tail-heavy condition.

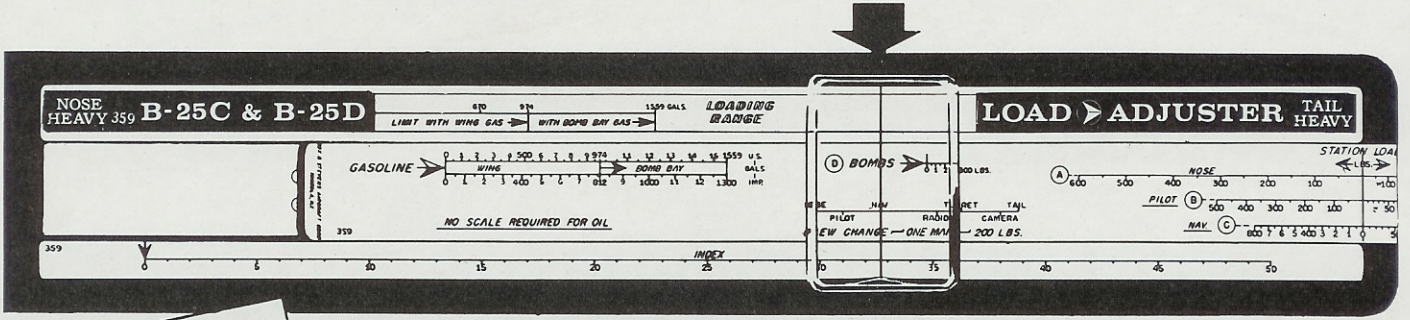
(b) This "out of balance" condition may be corrected by shifting some of the load or a member of the crew from an aft position to a forward position in the airplane, the amount of change required being predetermined by a "tril shift" of load on the load adjuster. In this sample case, shifting the photographer from the camera position in the rear entrance compartment forward to the navigator's compartment will bring the airplane balance well within cg limits.

(c) With the indicator hairline remaining on the last index (38.0), move the slide until "CAMERA" of the "CREW CHANGE-ONE MAN-200 LBS" scale is under the indicator hairline as shown in view R.



VIEW R

Move the indicator until its hairline is over "NAV." on the crew change scale. This changes the balance moment of one man (200 lb) from the camera position to the navigator's compartment, and moves the index to 32.7 as shown in view S.



VIEW S

(12) The airplane is now within permissible cg limits, and is satisfactory for flight. It is entirely permissible to shift miscellaneous cargo, baggage, or other items within the airplane to make the final balance fall within approved limits. The load adjusting instrument is exceedingly simple to operate, equally accurate, and the airplane should be loaded as it indicates.

CAUTION: Do NOT shift or dispose of any load without first pre-determining (by use of the load adjuster) that the balance will remain within limits after the change is made.

SECTION III

FLIGHT OPERATION DATA1. Determining Gross Weight.

Secure gross weight from Form F, Weight & Balance Clearance.

2. Flight Planning.

The following outline may be used as a guide to assist personnel in the use of the FLIGHT OPERATION INSTRUCTION CHART for flight planning purposes.

a. If the flight plan calls for a continuous flight where the desired cruising power and air speed are reasonably constant after take-off and climb to 5000 feet, the fuel required and flight time may be computed as a "single section flight."

(1) Within the limits of the airplane, the fuel required and flying time for a given mission depend largely upon the speed desired. With all other factors remaining equal in an airplane, speed is obtained at a sacrifice of range, and range is obtained at a sacrifice of speed. The speed is usually determined after considering the urgency of the flight plotted against the range required. The time of take-off is adjusted so as to have the flight arrive at its destination at the predetermined time.

(2) Select the FLIGHT OPERATION INSTRUCTION CHART for the gross weight to be used at take-off. Locate the largest figure entered under "gph" (gallons per hour) in column I on the lower half of the chart. Multiply this figure by the number and/or fraction of hours desired for reserve fuel. Add the resulting figure to the number of gallons set forth in footnote No. 2, and subtract the total from the amount of fuel in the airplane prior to starting of engine. The figure obtained as a result of this computation will represent the amount of gasoline available and applicable for flight planning purposes on the RANGE IN AIR MILES section of the FLIGHT OPERATION INSTRUCTION CHART.

(3) Select a figure in the fuel column equal to, or the next entry less than, the available amount of fuel in the airplane, as determined in paragraph 2.a.(2) above. Move horizontally to the right or left and select a figure equal to, or the next entry greater than, the air miles (with no wind) to be flown. Operating values contained in the column number in which this figure appears, represent the highest cruising speed possible at the range desired; however, the airplane may be operated in accordance with values contained under OPERATING DATA in any column of a higher number, with the flight plan being completed at a sacrifice of speed but at an increase in fuel economy.

(4) Using the same column number selected by applications of instructions contained in paragraph 2.a.(3) above, determine the indicated air speed (in mph or knots, whichever is applicable to the calibration of instruments in the airplane) and gallons per hour listed at sea level in the lower section of the chart under the subtitle OPERATING DATA. Divide this IAS into the air miles to be flown and obtain the calculated flight duration in minutes, which can then be converted into hours and minutes and deducted from the desired arrival time at destination in order to obtain the take-off time (without consideration for wind). To allow for wind, use the above IAS as ground speed and calculate a new corrected ground speed with the aid of a flight calculator or by a navigator's triangle of velocities.

(5) The airplane and engine operating values listed below OPERATING DATA in any single numbered column are calculated to give constant miles per gallon at any altitude listed. Therefore, the airplane may be operated at any altitude and at the corresponding set of values given, so long as they are in the same column listing the range desired.

CAUTION: Ranges listed in column I under "Max. Cont. Power" are correct only at the altitude given in footnote 1, and the engine and airplane operating data listed under OPERATING DATA will give constant miles per gallon if operation is consistent with values set opposite the listed altitudes.

(6) The flight plan may be readily changed at any time enroute, and the chart will show the balance of range at various cruising powers by following the INSTRUCTIONS FOR USING CHART printed on each page.

(7) Multiple charts are provided to give accurate data for operation at different gross weights, different external loads, and/or different combinations of engine use, such as single engine operation. Extreme caution should be exercised to assure selection of the correct chart applicable to the specific operating condition.

b. If the original flight plan calls for a mission requiring changes in power, speed, gross load, or external load, in accordance with the titles shown at the top of each chart provided, the total flight should be broken down into a series of individual short flights, each computed as outlined in paragraph 2.b. in its entirety, and then added together to make up the total flight and its requirements.

MODEL (S)

B-25C

B-25D

FLIGHT OPERATION INSTRUCTION CHART

SHEET 1 OF 8 SHEETS

EXTERNAL LOAD ITEMS

NONE

GR. WT. **34,000** TO **30,000** POUNDS

CONDITION	R.P.M.	M.P. (IN HG.)	BLOWER POSITION	MIXTURE POSITION	DURATION IN. MIN.
TAKE-OFF	2600	44.0	LOW	FULL RICH	5
MILITARY POWER	2600	42	LOW	FULL RICH	5
ENGINE (S)	R-2600-13				

INSTRUCTIONS FOR USING CHART: Select figure in fuel column equal to or less than total amount of fuel in airplane. Move horizontally to the right or left and select a figure equal to or greater than the air miles to be flown. Vertically below and opposite desired cruising altitude read optimum cruising conditions. NOTES: (A) Avoid continuous cruising in Column I except in emer-

gency. (B) Columns (II, III, IV & V) toward the right progressively give increase in range at sacrifice in speed. (C) Manifold Pressure (M.P.), Gallons Per Hour (G.P.H.), and True Airspeed are approximate maximum values for reference. (D) For quick reference, take-off and military power data are listed in the upper left corner of chart.

(NO WIND)

ALTERNATE CRUISING CONDITIONS

(NO RESERVE FUEL ALLOWANCE)

I (MAX. CONT. POWER)		FUEL U.S.GALS. 2	II		III		IV		FUEL IMP. GALS. 2	V (MAX. RANGE)	
RANGE IN AIR MILES			RANGE IN AIR MILES		RANGE IN AIR MILES		RANGE IN AIR MILES			RANGE IN AIR MILES	
STATUTE	NAUTICAL		STATUTE	NAUTICAL	STATUTE	NAUTICAL	STATUTE	NAUTICAL		STATUTE	NAUTICAL
1110	960	1520	1870	1630	2160	1880	2460	2140	1265	2750	2390
1020	890	1400	1730	1500	2000	1730	2260	1970	1165	2540	2200
950	820	1300	1600	1390	1850	1610	2100	1820	1082	2350	2040
870	760	1200	1480	1280	1710	1480	1940	1690	999	2170	1880
800	700	1100	1360	1180	1570	1360	1780	1540	916	1990	1730
730	630	1000	1230	1070	1420	1240	1620	1400	833	1810	1570
660	570	900	1110	960	1280	1110	1460	1260	750	1630	1410
580	510	800	990	860	1140	990	1290	1120	666	1450	1260
510	440	700	860	750	1000	870	1130	980	583	1270	1100
440	380	600	740	640	860	740	970	840	500	1090	940
360	320	500	620	540	710	620	810	700	417	900	790
290	250	400	490	430	570	490	650	560	333	720	630

OPERATING DATA						DENSITY ALT. IN FEET	OPERATING DATA						DENSITY ALT. IN FEET	OPERATING DATA						DENSITY ALT. IN FEET					
R.P.M.	M.P. IN. HG.	T.A.S. M.P.H.	T.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.		R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.		R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.		R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.
						30000																			
						25000																			
2400	F. T.	260	225	300	250	20000	2200	28	170	147	215	179	2100	27.5	160	138	155	129							
2400	F. T.	280	242	375	312	15000	2100	32.5	195	169	230	191	2250	25.5	190	165	165	137	2050	23.5	175	152			
2400	39	275	238	365	304	12000	2200	29	210	182	220	183	2100	27.5	200	173	175	146	2000	26	185	160			
2400	F. T.	275	238	330	275	9000	2100	30.5	215	186	215	179	2050	28.5	205	178	175	146	2000	27.5	195	169			
2400	38	275	238	375	312	6000	2050	30.5	215	186	210	175	2000	29	210	182	170	142	2000	28	200	173			
2400	38	265	229	355	295	3000	2100	31.5	220	190	210	175	2000	29.5	210	182	160	133	<u>1950</u>	<u>28.5</u>	<u>200</u>	<u>173</u>	<u>135</u>	<u>112</u>	
2400	38	255	221	340	283	S. L.	2050	30.5	220	190	175	146	2000	30	210	182	150	125	<u>1950</u>	<u>29.0</u>	<u>200</u>	<u>173</u>	<u>130</u>	<u>108</u>	

1 Range values at 14,000 ft. only
 2 Allow 19 U. S. gals., 16 Imp. gals. for warm up, take-off to 5,000 foot altitude and climb. Use fuel from tanks in the following order: _____
 Return fuel flows to tank

BOLD NUMBERS: Use Auto-Rich
LIGHT ITALICS: Use Auto-Lean
WITH TWO SPEED BLOWER: Use high blower above heavy line only

I.A.S.: Indicated Air Speed
 T.A.S.: True Air Speed
 M.P.: Manifold Pressure (In. Hg.)
 U.S.G.P.H.: U. S. Gallons Per Hour
 IMP.G.P.H.: Imperial Gallons Per Hour
 F.T.: Full Throttle

REFER TO "SPECIFIC ENGINE FLIGHT CHART" FOR ADDITIONAL ENGINE OPERATION DATA.

UNDERLINED FIGURES ARE PRELIMINARY: SUBJECT TO REVISION AFTER FLIGHT CHECK

MODEL (S)

B-25C
B-25D

FLIGHT OPERATION INSTRUCTION CHART

SHEET 2 OF 8 SHEETS

EXTERNAL LOAD ITEMS
NONE

GR. WT. 30,000 TO 26,000 POUNDS

RESTRICTED

T. O. No. 01-60GB-1

CONDITION	R.P.M.	M.P. (IN HG.)	BLOWER POSITION	MIXTURE POSITION	DURATION IN. MIN.
TAKE-OFF	2600	44.0	LOW	FULL RICH	5
MILITARY POWER	2600	42	LOW	FULL RICH	5
		41	HIGH	RICH	

ENGINE (S) R-2600-13

INSTRUCTIONS FOR USING CHART: Select figure in fuel column equal to or less than total amount of fuel in airplane. Move horizontally to the right or left and select a figure equal to or greater than the air miles to be flown. Vertically below and opposite desired cruising altitude read optimum cruising conditions. NOTES: (A) Avoid continuous cruising in Column I except in emer-

gency. (B) Columns (II, III, IV & V) toward the right progressively give increase in range at sacrifice in speed. (C) Manifold Pressure (M.P.), Gallons Per Hour (G.P.H.), and True Airspeed are approximate maximum values for reference. (D) For quick reference, take-off and military power data are listed in the upper left corner of chart.

ALTERNATE CRUISING CONDITIONS (NO WIND) (NO RESERVE FUEL ALLOWANCE)

I (MAX. CONT. POWER)		FUEL U.S. GALS. 2	II		III		IV		FUEL IMP. GALS. 2	V (MAX. RANGE)	
RANGE IN AIR MILES			RANGE IN AIR MILES		RANGE IN AIR MILES		RANGE IN AIR MILES			RANGE IN AIR MILES	
STATUTE	NAUTICAL		STATUTE	NAUTICAL	STATUTE	NAUTICAL	STATUTE	NAUTICAL		STATUTE	NAUTICAL
760	660	940	1280	1110	1480	1280	1680	1460	783	1880	1630
640	550	800	1090	940	1260	1090	1430	1240	666	1600	1390
560	480	700	950	820	1100	950	1250	1080	583	1400	1210
480	410	600	810	700	940	810	1070	920	500	1200	1040
400	340	500	680	590	780	670	890	770	417	1000	860
320	270	400	540	470	630	540	710	610	333	800	690
240	200	300	400	340	470	400	530	460	250	600	520
160	130	200	270	230	310	270	350	300	167	400	340
80	60	100	130	110	150	130	170	140	83	200	170

OPERATING DATA							DENSITY ALT. IN FEET	OPERATING DATA							DENSITY ALT. IN FEET	OPERATING DATA												
R.P.M.	M.P. IN. HG.	T.A.S. M.P.H.	T.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.			R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.			R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.		R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.
							30000																					
							25000																					
2400	F. T.	275	238	300	250		20000	2150	27.5	180	156	205	171	2100	27	175	152	150	125									
2400	F. T.	285	247	395	328		15000	2050	31.5	200	173	215	179	2150	25	195	169	150	125	1850	22	160	138	115	96			
2400	39	280	242	365	304		12000	2100	28	210	182	195	162	2050	27.5	205	178	170	142	1900	25	180	156	130	108			
2400	F. T.	280	242	330	275		9000	2000	28.5	210	182	160	133	2000	27.5	205	178	145	121	1950	27	195	169	130	108			
2400	38	280	242	370	308		6000	2000	29	215	186	170	142	2000	28.5	205	178	150	125	1900	27	195	169	125	104			
2400	38	270	234	355	295		3000	2000	30	220	190	175	146	2000	29	210	182	145	121	1850	28	195	169	120	100			
2400	38	260	225	340	283		S. L.	2000	29.5	215	186	140	117	1900	29	205	177	130	108	1700	29	195	169	115	96			

1 Range values at 14,000 ft. only
 2 Allow 34 U. S. gals. 28 Imp. gals. for warm up, take-off to 5,000 feet altitude and climb. Use fuel from tanks in the following order: Return fuel flows to tank

BOLD NUMBERS: Use Auto-Rich
 LIGHT ITALICS: Use Auto-Lean
 WITH TWO SPEED BLOWER: Use high blower above heavy line only

I.A.S.: Indicated Air Speed
 T.A.S.: True Air Speed
 M.P.: Manifold Pressure (In. Hg.)
 U.S.G.P.H.: U. S. Gallons Per Hour
 IMP.G.P.H.: Imperial Gallons Per Hour
 F.T.: Full Throttle

REFER TO "SPECIFIC ENGINE FLIGHT CHART" FOR ADDITIONAL ENGINE OPERATION DATA.

UNDERLINED FIGURES ARE PRELIMINARY: SUBJECT TO REVISION AFTER FLIGHT CHECK

- 37 -

RESTRICTED

MODEL (S)

B-25 C

B-25 D

FLIGHT OPERATION INSTRUCTION CHART

SHEET 3 OF 8 SHEETS

GR. WT. 36,000 TO 32,000 POUNDS

EXTERNAL LOAD ITEMS
1 TORPEDO AND 8 WING BOMBS

CONDITION	R.P.M.	M.P. (IN HG.)	BLOWER POSITION	MIXTURE POSITION	DURATION IN. MIN.
TAKE-OFF	2600	44.0	LOW	FULL RICH	5
MILITARY POWER	2600	42	LOW HIGH	FULL RICH	5
ENGINE IS)	R-2600-13				

INSTRUCTIONS FOR USING CHART: Select figure in fuel column equal to or less than total amount of fuel in airplane. Move horizontally to the right or left and select a figure equal to or greater than the air miles to be flown. Vertically below and opposite desired cruising altitude read optimum cruising conditions. NOTES: (A) Avoid continuous cruising in Column I except in emer-

gency. (B) Columns (II, III, IV & V) toward the right progressively give increase in range at sacrifice in speed. (C) Manifold Pressure (M.P.), Gallons Per Hour (G.P.H.), and True Airspeed are approximate maximum values for reference. (D) For quick reference, take-off and military power data are listed in the upper left corner of chart.

(NO WIND)

ALTERNATE CRUISING CONDITIONS

(NO RESERVE FUEL ALLOWANCE)

I (MAX. CONT. POWER)		FUEL U.S. GALS. 2	II		III		IV		FUEL IMP. GALS. 2	V (MAX. RANGE)	
RANGE IN AIR MILES			RANGE IN AIR MILES		RANGE IN AIR MILES		RANGE IN AIR MILES			RANGE IN AIR MILES	
STATUTE	NAUTICAL		STATUTE	NAUTICAL	STATUTE	NAUTICAL	STATUTE	NAUTICAL		STATUTE	NAUTICAL
850	730	1380	1190	1030	1390	1200	1580	1370	1149	1770	1530
800	690	1300	1120	970	1300	1130	1480	1280	1082	1670	1450
740	640	1200	1040	900	1200	1040	1370	1190	999	1540	1330
680	590	1100	950	820	1100	950	1260	1090	916	1410	1220
620	530	1000	860	740	1000	860	1140	990	833	1280	1110
550	470	900	780	670	900	780	1030	890	750	1150	990
490	420	800	690	600	800	690	910	790	666	1020	880
430	370		600	520	700	600	800	690		900	780

OPERATING DATA						DENSITY ALT. IN FEET	OPERATING DATA						DENSITY ALT. IN FEET	OPERATING DATA										
R.P.M.	M.P. IN. HG.	T.A.S. M.P.H.	T.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.		R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.		R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.	R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.
						30000																		
						25000																		
						20000																		
2400	F. T.	231	200	395	328	15000	2100	32	150	130	235	195												
2400		39	227	197	365	12000	2200	36.5	175	152	290	241	2200	29	170	147	220	183						
2400	F. T.	234	203	330	275	9000	2200	31.5	185	160	270	225	2100	30	175	152	215	179	2100	28	160	139	190	158
2400		38	237	206	370	6000	2150	32	190	165	260	216	2100	30.5	180	156	215	179	2050	29	165	143	190	158
2400		38	230	199	355	3000	2150	33	195	169	260	216	2100	31.5	185	160	215	179	2050	30.5	180	165	180	154
2400		38	219	190	340	S. L.	2150	34	195	169	255	212	2050	32	190	165	205	171	2050	31	180	165	175	146

1 Range values at 14,000 ft. only
2 Allow 59 U. S. gals., 49 Imp. gals. for warm up, take-off to 5,000 feet altitude and climb. Use fuel from tanks in the following order. Return fuel flows to tank

BOLD NUMBERS: Use Auto-Rich
LIGHT ITALICS: Use Auto-Lean
WITH TWO SPEED BLOWER: Use high blower above heavy line only

I.A.S.: Indicated Air Speed
T.A.S.: True Air Speed
M.P.: Manifold Pressure (In. Hg.)
U.S.G.P.H.: U. S. Gallons Per Hour
IMP.G.P.H.: Imperial Gallons Per Hour
F.T.: Full Throttle

REFER TO "SPECIFIC ENGINE FLIGHT CHART" FOR ADDITIONAL ENGINE OPERATION DATA.

MODEL (S)

B-25 C
B-25 D

FLIGHT OPERATION INSTRUCTION CHART

SHEET 4 OF 8 SHEETS

EXTERNAL LOAD ITEMS
1 TORPEDO AND 8 WING BOMBS

GR. WT. 32,000 TO 28,000 POUNDS

CONDITION	R.P.M.	M.P. (IN HG.)	BLOWER POSITION	MIXTURE POSITION	DURATION IN. MIN.
TAKE-OFF	2600	44.0	LOW	FULL RICH	5
MILITARY POWER	2600	42	LOW HIGH	FULL RICH	5

INSTRUCTIONS FOR USING CHART: Select figure in fuel column equal to or less than total amount of fuel in airplane. Move horizontally to the right or left and select a figure equal to or greater than the air miles to be flown. Vertically below and opposite desired cruising altitude read optimum cruising conditions. NOTES: (A) Avoid continuous cruising in Column I except in emer-

gency. (B) Columns (II, III, IV & V) toward the right progressively give increase in range at sacrifice in speed. (C) Manifold Pressure (M.P.), Gallons Per Hour (G.P.H.), and True Airspeed are approximate maximum values for reference. (D) For quick reference, take-off and military power data are listed in the upper left corner of chart.

ENGINE (S) R-2600-13

(NO WIND)

ALTERNATE CRUISING CONDITIONS

(NO RESERVE FUEL ALLOWANCE)

I (MAX. CONT. POWER)		FUEL U.S.GALS. 2	II		III		IV		FUEL IMP. GALS. 2	V (MAX. RANGE)	
RANGE IN AIR MILES			RANGE IN AIR MILES		RANGE IN AIR MILES		RANGE IN AIR MILES			RANGE IN AIR MILES	
STATUTE	NAUTICAL		STATUTE	NAUTICAL	STATUTE	NAUTICAL	STATUTE	NAUTICAL		STATUTE	NAUTICAL
550	470	925	900	780	1040	900	1180	1020	771	1320	1140
470	400	800	780	670	900	780	1020	880	666	1140	990
410	350	700	680	590	790	680	890	770	583	1000	870
350	300	600	580	500	680	590	770	660	500	860	740
290	250	500	490	420	560	480	640	550	417	710	610
230	200	400	390	330	450	390	510	440	333	570	490
170	140	300	290	250	340	290	380	330	250	430	370
110	95	200	190	160	220	190	250	210	167	280	240
60	50	100	100	80	110	90	120	100	83	140	120

OPERATING DATA							OPERATING DATA							OPERATING DATA							OPERATING DATA											
R.P.M.	M.P. IN. HG.	T.A.S. M.P.H.	T.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.	DENSITY ALT. IN FEET	R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.	R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.	DENSITY ALT. IN FEET	R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.	R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.	DENSITY ALT. IN FEET
						30000														30000												
						25000														25000												
						20000														20000												
2400	F. T.	240	208	395	328	15000	2150	33.5	170	147	250	208	2100	32.5	170	147	235	195	2050	31.5	160	139	215	179								
2400	39	235	204	365	304	12000	2200	29	180	156	225	187	2100	28	175	152	195	162	2050	27	170	147	165	137								
2400	F. T.	240	208	330	275	9000	2100	30.5	190	165	230	191	2050	29	180	156	190	158	2000	28.5	175	152	160	133								
2400	38	245	212	370	308	6000	2100	31	190	165	220	183	2050	30	185	160	190	158	2000	28.5	175	152	155	129								
2400	38	235	204	355	295	3000	2100	31.5	195	169	215	179	2050	30.5	185	160	175	146	2000	29	180	156	150	125								
2400	38	225	195	240	200	S. L.	2050	32.5	200	173	210	175	2000	31	190	165	165	137	2000	29.5	180	156	140	117								

1 Range values at 14,000 ft. only
2 Allow 49 U. S. gals., 41 Imp. gals. for warm up, take-off to 5,000 feet altitude and climb. Use fuel from tanks in the following order:
Return fuel flows to tank

BOLD NUMBERS: Use Auto-Rich
LIGHT ITALICS: Use Auto-Lean
WITH TWO SPEED BLOWER: Use high blower above heavy line only

I.A.S.: Indicated Air Speed
T.A.S.: True Air Speed
M.P.: Manifold Pressure (In. Hg.)
U.S.G.P.H.: U. S. Gallons Per Hour
IMP.G.P.H.: Imperial Gallons Per Hour
F.T.: Full Throttle

REFER TO "SPECIFIC ENGINE FLIGHT CHART" FOR ADDITIONAL ENGINE OPERATION DATA.

UNDERLINED FIGURES ARE PRELIMINARY: SUBJECT TO REVISION AFTER FLIGHT CHECK

MODEL (S)

B-25 C
B-25 D

FLIGHT OPERATION INSTRUCTION CHART

SHEET 5 OF 8 SHEETS

EXTERNAL LOAD ITEMS
1 TORPEDO OR 8 WING BOMBS

GR. WT. 36,000 TO 31,000 POUNDS

CONDITION	R.P.M.	M.P. (IN HG.)	BLOWER POSITION	MIXTURE POSITION	DURATION IN. MIN.
TAKE-OFF	2600	44.0	LOW	FULL RICH	5
MILITARY POWER	2600	42	LOW HIGH	FULL RICH	5

ENGINE (S) R-2600-13

INSTRUCTIONS FOR USING CHART: Select figure in fuel column equal to or less than total amount of fuel in airplane. Move horizontally to the right or left and select a figure equal to or greater than the air miles to be flown. Vertically below and opposite desired cruising altitude read optimum cruising conditions. NOTES: (A) Avoid continuous cruising in Column I except in emer-

gency. (B) Columns (II, III, IV & V) toward the right progressively give increase in range at sacrifice in speed. (C) Manifold Pressure (M.P.), Gallons Per Hour (G.P.H.), and True Airspeed are approximate maximum values for reference. (D) For quick reference, take-off and military power data are listed in the upper left corner of chart.

ALTERNATE CRUISING CONDITIONS

(NO WIND)

(NO RESERVE FUEL ALLOWANCE)

I (MAX. CONT. POWER)		FUEL U.S. GALS. * 2	II		III		IV		FUEL IMP. GALS. * 2	V (MAX. RANGE)																				
RANGE IN AIR MILES			RANGE IN AIR MILES		RANGE IN AIR MILES		RANGE IN AIR MILES			RANGE IN AIR MILES																				
STATUTE	NAUTICAL		STATUTE	NAUTICAL	STATUTE	NAUTICAL	STATUTE	NAUTICAL		STATUTE	NAUTICAL																			
1100	950	1520	1570	1360	1810	1570	2060	1780	1265	2300	1990																			
1010 940	880 820	1400 1300	1450 1350	1260 1170	1670 1550	1450 1350	1890 1760	1640 1530	1165 1082	2120 1960	1840 1710																			
870 800	750 690	1200 1100	1240 1140	1080 990	1430 1310	1240 1140	1620 1490	1410 1290	999 916	1810 1660	1570 1440																			
720 650	630 570	1000 900	1040 930	900 810	1190 1070	1040 930	1350 1220	1170 1060	833 750	1510 1360	1310 1180																			
OPERATING DATA						OPERATING DATA						OPERATING DATA						OPERATING DATA												
R.P.M.	M.P. IN. HG.	T.A.S. M.P.H.	T.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.	DENSITY ALT. IN FEET	R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.	DENSITY ALT. IN FEET	R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.	DENSITY ALT. IN FEET	R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.	DENSITY ALT. IN FEET			
						30000															30000									
						25000															25000									
						20000															20000									
2400	F. T.	248	215	375	241	15000	2100	33.5	165	143	240	200	2100	33	165	143	230	191	2050	32	160	139	210	175	2050	27.5	170	147	170	142
2400		39	245	212	365	12000	2200	36.5	185	160	290	241	2150	28.5	175	152	200	167	2050	27.5	170	147	170	142	2050	28.5	175	152	170	142
2400	F. T.	252	220	330	258	9000	2150	31	190	165	245	204	2050	29.5	180	156	200	167	2000	28.5	175	152	170	142	2000	28.5	175	152	170	142
2400		38	254	222	370	6000	2100	31.5	195	169	240	200	2050	30	185	160	200	167	2000	29	180	156	170	142	2000	29	180	156	170	142
2400		38	244	211	355	3000	2100	32	200	173	230	191	2050	31	190	165	190	158	2000	30	185	160	165	137	2000	30	185	160	165	137
2400		38	233	202	340	S. L.	2100	32.5	200	173	220	183	2050	31.5	195	169	180	150	2000	30.5	185	160	155	129	2000	30.5	185	160	155	129

- 1 Range values at 14,000 ft. only
 2 Allow 39 U. S. gals. 32 Imp. gals. for warm up, take-off to 5,000 feet altitude and climb. Use fuel from tanks in the following order:
 Return fuel flows to tank

BOLD NUMBERS: Use Auto-Rich
LIGHT ITALICS: Use Auto-Lean
WITH TWO SPEED BLOWER: Use high blower above heavy line only

I.A.S.: Indicated Air Speed
 T.A.S.: True Air Speed
 M.P.: Manifold Pressure (In. Hg.)
 U.S.G.P.H.: U. S. Gallons Per Hour
 IMP.G.P.H.: Imperial Gallons Per Hour
 F.T.: Full Throttle

REFER TO "SPECIFIC ENGINE FLIGHT CHART" FOR ADDITIONAL ENGINE OPERATION DATA.

UNDERLINED FIGURES ARE PRELIMINARY: SUBJECT TO REVISION AFTER FLIGHT CHECK

MODEL (S)
B-25 C
B-25 D

FLIGHT OPERATION INSTRUCTION CHART

SHEET 6 OF 8 SHEETS

EXTERNAL LOAD ITEMS
1 TORPEDO OR 8 WING BOMBS

GR. WT. 31,000 TO 26,000 POUNDS

CONDITION	R.P.M.	M.P. (IN HG.)	BLOWER POSITION	MIXTURE POSITION	DURATION IN. MIN.
TAKE-OFF	2600	44.0	LOW	FULL RICH	5
MILITARY POWER	2600	42	LOW HIGH	FULL RICH	5
ENGINE (S)	R-2600-13				

INSTRUCTIONS FOR USING CHART: Select figure in fuel column equal to or less than total amount of fuel in airplane. Move horizontally to the right or left and select a figure equal to or greater than the air miles to be flown. Vertically below and opposite desired cruising altitude read optimum cruising conditions. NOTES: (A) Avoid continuous cruising in Column I except in emer-

gency. (B) Columns (II, III, IV & V) toward the right progressively give increase in range at sacrifice in speed. (C) Manifold Pressure (M.P.), Gallons Per Hour (G.P.H.), and True Airspeed are approximate maximum values for reference. (D) For quick reference, take-off and military power data are listed in the upper left corner of chart.

(NO WIND)

ALTERNATE CRUISING CONDITIONS

(NO RESERVE FUEL ALLOWANCE)

I (MAX. CONT. POWER)		FUEL U.S. GALS. 2	II		III		IV		FUEL IMP. GALS. 2	V (MAX. RANGE)	
RANGE IN AIR MILES			RANGE IN AIR MILES		RANGE IN AIR MILES		RANGE IN AIR MILES			RANGE IN AIR MILES	
STATUTE	NAUTICAL		STATUTE	NAUTICAL	STATUTE	NAUTICAL	STATUTE	NAUTICAL		STATUTE	NAUTICAL
620	530	940	1110	960	1270	1100	1430	1240	783	1600	1330
520	450	800	950	820	1080	940	1220	1060	666	1360	1180
460	400	700	830	720	950	820	1070	930	583	1190	1030
390	340	600	710	620	810	700	910	790	500	1020	880
330	280	500	590	510	680	590	760	660	417	850	740
260	230	400	470	410	540	470	610	530	333	680	590
200	170	300	350	310	410	350	460	400	250	510	440
130	110	200	240	200	270	230	300	260	167	340	300
60	50	100	110	100	130	110	150	130	83	170	140

OPERATING DATA							DENSITY ALT. IN FEET	OPERATING DATA							DENSITY ALT. IN FEET	OPERATING DATA															
R.P.M.	M.P. IN. HG.	T.A.S. M.P.H.	T.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.			R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.			R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.		R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.			
						30000																									
						25000																									
2400	F. T.	250	216	300	250	20000	2100	27	150	130	160	133	2000	26.5	145	126	145	121													
2400	F. T.	260	225	375	312	15000	2200	25.5	180	156	170	142	2150	25	175	152	150	125	2000	24	160	139	140	117	15000						
2400	39	254	220	365	304	12000	2150	28.5	195	169	200	167	2100	27.5	185	160	175	146	2000	26.5	175	152	140	117	12000						
2400	F. T.	257	222	330	275	9000	2050	29.5	195	169	190	158	2000	28.5	190	165	165	137	2000	27	180	156	140	117	9000	1800	26	155	130	105	87
2400	38	259	224	370	308	6000	2050	30	200	173	190	158	2000	29	190	165	165	137	1950	27.5	185	160	135	112.2	6000	1750	27	160	139	105	87
2400	38	248	215	355	295	3000	2050	30.5	200	173	185	154	2000	29.5	195	169	155	129	1950	28.5	185	160	130	108	3000	1600	28	160	139	100	83
2400	38	239	207	340	283	S. L.	2050	31.5	205	178	180	150	2000	30	200	173	155	129	1900	29	185	160	130	108	S. L.	1500	29	160	139	95	79

- 1 Range values at 14,000 ft. only
2 Allow 34 U. S. gals., 28 Imp. gals. for warm up, take-off to 5,000 feet altitude and climb. Use fuel from tanks in the following order: _____
Return fuel flows to tank

BOLD NUMBERS: Use Auto-Rich
LIGHT ITALICS: Use Auto-Lean
WITH TWO SPEED BLOWER: Use high blower above heavy line only

I.A.S.: Indicated Air Speed
T.A.S.: True Air Speed
M.P.: Manifold Pressure (In. Hg.)
U.S.G.P.H.: U. S. Gallons Per Hour
IMP.G.P.H.: Imperial Gallons Per Hour
F.T.: Full Throttle

REFER TO "SPECIFIC ENGINE FLIGHT CHART" FOR ADDITIONAL ENGINE OPERATION DATA.

UNDERLINED FIGURES ARE PRELIMINARY: SUBJECT TO REVISION AFTER FLIGHT CHECK

MODEL (S)

B-25 C

B-25 D

FLIGHT OPERATION INSTRUCTION CHART

(SINGLE ENGINE OPERATION)

SHEET7..... OF8..... SHEETS

EXTERNAL LOAD ITEMS

NONE

GR. WT.....**28,000**..... TO.....**26,000**..... POUNDS

CONDITION	R.P.M.	M.P. (IN HG.)	BLOWER POSITION	MIXTURE POSITION	DURATION IN. MIN.
TAKE-OFF	2600	44.0	LOW	FULL RICH	5
MILITARY POWER	2600	42 41	LOW HIGH	FULL RICH	5

INSTRUCTIONS FOR USING CHART: Select figure in fuel column equal to or less than total amount of fuel in airplane. Move horizontally to the right or left and select a figure equal to or greater than the air miles to be flown. Vertically below and opposite desired cruising altitude read optimum cruising conditions. **NOTES:** (A) Avoid continuous cruising in Column I except in emer-

gency. (B) Columns (II, III, IV & V) toward the right progressively give increase in range at sacrifice in speed. (C) Manifold Pressure (M.P.), Gallons Per Hour (G.P.H.), and True Airspeed are approximate maximum values for reference. (D) For quick reference, take-off and military power data are listed in the upper left corner of chart.

ENGINE (S) **R-2600-13 (1)**

(NO WIND)

ALTERNATE CRUISING CONDITIONS

(NO RESERVE FUEL ALLOWANCE)

I (MAX. CONT. POWER)										FUEL U.S. GALS. 2	II				III				IV				FUEL IMP. GALS. 2	V (MAX. RANGE)																							
RANGE IN AIR MILES											RANGE IN AIR MILES				RANGE IN AIR MILES				RANGE IN AIR MILES					RANGE IN AIR MILES																							
STATUTE					NAUTICAL						STATUTE		NAUTICAL		STATUTE		NAUTICAL		STATUTE		NAUTICAL			STATUTE		NAUTICAL																					
940					810					900				1040		900		1170		1010		750		1300		1130																					
830					720					800				920		800		1040		900		666		1160		1000																					
730					630					700				810		700		910		790		583		1010		880																					
620					540					600				690		600		780		670		500		870		750																					
520					450					500				580		500		650		560		417		720		630																					
410					360					400				460		400		520		450		333		590		510																					
310					270					300				340		300		390		340		250		430		370																					
210					180					200				230		200		260		220		167		290		250																					
100					90					100				120		100		130		110		83		140		120																					
OPERATING DATA										DENSITY ALT. IN FEET	OPERATING DATA						OPERATING DATA						OPERATING DATA						DENSITY ALT. IN FEET	OPERATING DATA																	
R.P.M.	M.P. IN. HG.	T.A.S. M.P.H.	T.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.	R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS		U.S. G. P. H.	IMP. G. P. H.	R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.	R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.	R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS		U.S. G. P. H.	IMP. G. P. H.																
										30000																			30000																		
										25000																			25000																		
										20000																			20000																		
										15000																			15000																		
										12000																			12000																		
2400	F. T.	180	156	165	137																			9000																							
2400	38	195	169	185	154																			6000																							
2400	38	190	165	175	146																			3000																							
2400	38	185	160	170	142																			S. L.																							
										9000																			2300	32.5	145	126	150	125													
										6000																			2250	34	155	134	155	129	2100	31.5	135	117	115	96	6000						
										3000																			2250	34.5	165	143	155	129	2100	32.5	145	126	120	100	3000	2100	32	130	113	100	83
										S. L.																			2250	36	170	147	155	129	2100	33.5	155	134	125	104	S. L.	2100	32	140	121	100	83

- Range values at **6,000** ft. only
- Allow _____ U. S. gals. _____ Imp. gals. for warm up, take-off to _____ feet altitude and climb. Use fuel from tanks in the following order:
Return fuel flows to tank

REFER TO "SPECIFIC ENGINE FLIGHT CHART" FOR ADDITIONAL ENGINE OPERATION DATA.

BOLD NUMBERS: Use Auto-Rich
LIGHT ITALICS: Use Auto-Lean
WITH TWO SPEED BLOWER: Use high blower above heavy line only

I.A.S.: Indicated Air Speed
T.A.S.: True Air Speed
M.P.: Manifold Pressure (In. Hg.)
U.S.G.P.H.: U. S. Gallons Per Hour
IMP.G.P.H.: Imperial Gallons Per Hour
F.T.: Full Throttle

RESTRICTED

T. O. No. 01-60GB-1

MODEL (S)

B-25 C

B-25 D

FLIGHT OPERATION INSTRUCTION CHART

(SINGLE ENGINE OPERATION)

SHEET 8 OF 8 SHEETS

EXTERNAL LOAD ITEMS

NONE

GR. WT. 26,000 TO 24,000 POUNDS

CONDITION	R.P.M.	M.P. (IN HG.)	BLOWER POSITION	MIXTURE POSITION	DURATION IN. MIN.
TAKE-OFF	2600	44.0	LOW	FULL RICH	5
MILITARY POWER	2600	42	LOW HIGH	FULL RICH	5

INSTRUCTIONS FOR USING CHART: Select figure in fuel column equal to or less than total amount of fuel in airplane. Move horizontally to the right or left and select a figure equal to or greater than the air miles to be flown. Vertically below and opposite desired cruising altitude read optimum cruising conditions. **NOTES:** (A) Avoid continuous cruising in Column I except in emer-

gency. (B) Columns (II, III, IV & V) toward the right progressively give increase in range at sacrifice in speed. (C) Manifold Pressure (M.P.), Gallons Per Hour (G.P.H.), and True Airspeed are approximate maximum values for reference. (D) For quick reference, take-off and military power data are listed in the upper left corner of chart.

ENGINE (S) R-2600-13 (1)

(NO WIND)

ALTERNATE CRUISING CONDITIONS

(NO RESERVE FUEL ALLOWANCE)

I (MAX. CONT. POWER)		FUEL U.S. GALS. 2	II		III		IV		FUEL IMP. GALS. 2	V (MAX. RANGE)	
RANGE IN AIR MILES			RANGE IN AIR MILES		RANGE IN AIR MILES		RANGE IN AIR MILES			RANGE IN AIR MILES	
STATUTE	NAUTICAL		STATUTE	NAUTICAL	STATUTE	NAUTICAL	STATUTE	NAUTICAL		STATUTE	NAUTICAL
540	470	500	620	540	700	610	790	690	417	880	770
430	370	400	490	430	560	490	630	550	333	710	620
320	280	300	370	320	420	360	470	410	250	530	460
210	180	200	250	210	280	240	310	270	167	350	300
100	100	100	120	110	140	120	160	130	83	170	150

OPERATING DATA							DENSITY ALT. IN FEET	OPERATING DATA							DENSITY ALT. IN FEET	OPERATING DATA																
R.P.M.	M.P. IN. HG.	T.A.S. M.P.H.	T.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.			R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.			R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.		R.P.M.	M.P. IN. HG.	I.A.S. M.P.H.	I.A.S. KNOTS	U.S. G. P. H.	IMP. G. P. H.				
							30000															30000										
							25000															25000										
							20000															20000										
							15000															15000										
							12000															12000										
2400	F. T.	205	178	165	137		9000	2300	30.5	160	138	150	125	2100	32.5	145	126	120	100													
2400	38	200	173	185	154		6000	2200	33.5	165	143	150	125	2100	31	150	130	120	100	2050	30	135	117	95	79							
2400	38	195	169	175	146		3000	2200	34.5	170	147	150	125	2100	32.5	160	139	120	100	2050	30	150	130	100	83	2000	29.5	135	117	80	67	
2400	38	185	160	170	142		S. L.	2200	35	170	147	145	121	2100	33.5	160	139	120	100	2050	32	155	134	100	83	S. L.	2000	30.5	140	121	80	67

- 1 Range values at 6,000 ft. only
 2 Allow _____ U. S. gals., _____ Imp. gals. for warm up, take-off to _____ feet altitude and climb. Use fuel from tanks in the following order _____
 Return fuel flows to tank

REFER TO "SPECIFIC ENGINE FLIGHT CHART" FOR ADDITIONAL ENGINE OPERATION DATA.

BOLD NUMBERS: Use Auto-Rich
LIGHT ITALICS: Use Auto-Lean
WITH TWO SPEED BLOWER: Use high blower above heavy line only

I.A.S.: Indicated Air Speed
 T.A.S.: True Air Speed
 M.P.: Manifold Pressure (In. Hg.)
 U.S.G.P.H.: U. S. Gallons Per Hour
 IMP.G.P.H.: Imperial Gallons Per Hour
 F.T.: Full Throttle

RESTRICTED

T. O. No. 01-60GB-1

AIRPLANE MODELS

B-25 C & B-25 D

NO EXTERNAL LOAD

TAKE-OFF, CLIMB & LANDING CHART

(SHEET 1 OF 3 SHEETS)

TAKE-OFF DISTANCE (IN FEET)

ENGINE MODELS

R-2600-13

GROSS WEIGHT (IN LBS.)	HEAD WIND (MPH)	HARD SURFACE RUNWAY						SOD-TURF RUNWAY						SOFT SURFACE RUNWAY					
		AT SEA LEVEL		AT 3,000 FT.		AT 6,000 FT.		AT SEA LEVEL		AT 3,000 FT.		AT 6,000 FT.		AT SEA LEVEL		AT 3,000 FT.		AT 6,000 FT.	
		GROUND RUN	TO CLEAR 50' OBJ.	GROUND RUN	TO CLEAR 50' OBJ.	GROUND RUN	TO CLEAR 50' OBJ.	GROUND RUN	TO CLEAR 50' OBJ.	GROUND RUN	TO CLEAR 50' OBJ.	GROUND RUN	TO CLEAR 50' OBJ.	GROUND RUN	TO CLEAR 50' OBJ.	GROUND RUN	TO CLEAR 50' OBJ.	GROUND RUN	TO CLEAR 50' OBJ.
36,000	0	4600	5700	5200	6400	6700	8100	5300	6300	6000	7200	7600	9200	8000	9000	9300	10,500	11,500	13,000
36,000	20	3200	4000	3400	4300	4500	5600	3500	4300	4000	5000	5400	6600	5300	6100	6300	7,300	7,800	9,000
36,000	40	2000	2700	2100	2800	2800	3700	2100	2900	2600	3400	3500	4600	3400	4000	4200	5,000	5,100	6,100
32,000	0	3300	4200	3700	4700	4700	5900	3700	4600	4000	5000	5300	6600	5500	6300	5900	6,800	8,200	9,500
32,000	20	2200	2900	2500	3300	3200	4200	2500	3200	2800	3600	3400	4400	3700	4300	4000	4,800	5,800	6,800
32,000	40	1400	2000	1600	2300	2000	2800	1700	2200	1800	2400	2100	2900	2300	2800	2700	3,300	3,900	4,700
28,000	0	2300	3000	2500	3300	3000	4000	2500	3300	2700	3500	3200	4200	3500	4200	3700	4,500	4,800	5,800
28,000	20	1600	2200	1700	2400	2100	2900	1700	2400	1800	2500	2100	3000	2300	2900	2500	3,100	3,300	4,200
28,000	40	1000	1500	1100	1600	1300	2000	1100	1600	1200	1800	1400	2100	1500	2000	1600	2,100	2,000	2,600

NOTE: INCREASE DISTANCE 10% FOR EACH 10°C (50°F) ABOVE 0°C (32°F) ENGINE LIMITS FOR TAKE-OFF 2600 RPM & 44.0 IN. HG

CLIMB DATA

GROSS WEIGHT (IN LBS.)	TYPE OF CLIMB	COMBAT MISSIONS USE 2400 RPM & 38 IN. HG						FERRY MISSIONS USE 2100 RPM & 31.5 IN. HG						BLOWER CHANGE							
		S.L. TO 3000 FT. ALT.		6000 FT. ALT.		9000 FT. ALT.		12,000 FT. ALT.		15,000 FT. ALT.											
		BEST I.A.S.	FT./MIN.	TIME FROM S.L.	BEST I.A.S.	FT./MIN.	TIME FROM S.L.	BEST I.A.S.	FT./MIN.	TIME FROM S.L.	BEST I.A.S.	FT./MIN.	TIME FROM S.L.		FUEL FROM S.L.						
36,000	COMBAT FERRY	145	1430	2:0	145	1380	4:5	35	145	1200	6:5	50	145	1040	9:5	65	140	880	12:5	80	11,000
		145	640	5:0	145	660	9:5	40	145	670	14:5	60	145	420	20:5	80	140	300	29:5	105	13,000
32,000	COMBAT FERRY	150	1560	2:0	150	1520	4:0	35	150	1340	6:0	45	150	1180	8:5	60	145	1630	11:0	75	11,000
		145	900	3:5	145	930	6:5	30	145	950	10:0	45	145	670	14:0	60	140	550	19:0	75	13,000
28,000	COMBAT FERRY	155	1750	2:0	155	1640	3:5	30	155	1480	5:5	40	155	1340	8:0	55	150	1190	10:0	70	11,000
		145	1180	3:0	145	1200	5:0	25	145	1230	7:0	35	145	950	11:0	45	140	830	13:0	55	13,000

NOTE: INCREASED ELAPSED CLIMBING TIME % FOR EACH 10°C (50°F) ABOVE 0°C (32°F) FREE AIR TEMPERATURE. FUEL INCLUDES WARM-UP AND TAKE-OFF ALLOWANCE

LANDING DISTANCE (IN FEET)

GROSS WEIGHT (IN LBS.)	BEST I. A. S. Approach	HARD DRY SURFACE						FIRM DRY SOD						WET OR SLIPPERY					
		AT SEA LEVEL		AT 3,000 FT.		AT 6,000 FT.		AT SEA LEVEL		AT 3,000 FT.		AT 6,000 FT.		AT SEA LEVEL		AT 3,000 FT.		AT 6,000 FT.	
		TO CLEAR 50' OBJ.	GROUND ROLL	TO CLEAR 50' OBJ.	GROUND ROLL	TO CLEAR 50' OBJ.	GROUND ROLL	TO CLEAR 50' OBJ.	GROUND ROLL	TO CLEAR 50' OBJ.	GROUND ROLL	TO CLEAR 50' OBJ.	GROUND ROLL	TO CLEAR 50' OBJ.	GROUND ROLL	TO CLEAR 50' OBJ.	GROUND ROLL	TO CLEAR 50' OBJ.	GROUND ROLL
34,000	120	3900	1900	4100	2100	4400	2300	4200	2200	4400	2400	4800	2600	9300	7400	10,200	8200	11,100	8900
31,000	120	3600	1700	3800	1900	4100	2100	3300	2000	4100	2200	4400	2400	8700	6800	9,400	7800	10,200	8200
25,000	110	3100	1400	3300	1500	3500	1700	3000	1600	3500	1800	3800	1900	7200	5500	7,800	6000	8,400	6600

NOTE: FOR GROUND TEMPERATURES ABOVE 35°C (95°F) INCREASE APPROACH I.A.S. 10% AND ALLOW 20% INCREASE IN GROUND ROLL.

REMARKS	LEGEND I. A. S.: Indicated Air Speed NOTE: All distances are average, and subject to considerable variations because of differences in pilot technique, load, C.G., etc. RED FIGURES HAVE NOT BEEN FLIGHT CHECKED.
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RESTRICTED