

APPENDIX I

U. S. A. - BRITISH GLOSSARY OF NOMENCLATURE

U. S. A	BRITISH
Accumulator (hydraulic)	Should not be confused with electrical accumulator or battery
Airfield	Aerodrome
Battery (electrical)	Electrical accumulator
Bombardier	Bomb aimer
Ceiling	Cloud height
Check valve (hydraulic)	Non-return valve
Copilot	Second pilot
Cylinder (hydraulic)	Jack
Dump valve	Jettison valve
Empennage	Tail Unit
Flight indicator	Artificial horizon
Gasoline (gas)	Petrol
Glass, bulletproof	Armour glass
Gross weight	All-up weight
Ground (electrical)	Earth
Gyro horizon	Artificial horizon
Gyro pilot	Automatic pilot
(to) Land	(to) Alight
Lean	Weak
Left	Port
(to) Level off	(to) Flatten out
Line, mooring	Mooring guy
Manifold pressure	Boost
Mast, radio	Rod aerial
Overload	Non-standard load
Panel, outboard	Outer plane
Reticle (gun sight)	Graticule
Screen	Filter
Set, command	Pilot controller set
Set, liaison	General purpose set
Airplane	Aircraft
Speed, indicated air (IAS)	Air-speed-indicator reading
Stabilizer, horizontal	Tail plane
Stabilizer, vertical	Fin
Stack	Manifold (inlet or exhaust)
Tachometer	Engine speed indicator
Tube (radio)	Valve
Turn indicator	Direction indicator
Valve (fuel or oil)	Cock
Weight empty	Tare
Windshield	Windscreen
Wing	Main plane



APPENDIX II
FLIGHT OPERATION DATA

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CAUTION

POWER SETTINGS GIVEN IN THESE CHARTS ARE
APPLICABLE ONLY WHEN USING 100 OCTANE
FUEL. REFER TO APPENDIX III FOR RESTRIC-
TIONS WITH USE OF 91 OCTANE FUEL.

FORM 45C-11A

AIRPLANE MODELS

B-17 F

SPECIFIC ENGINE

FLIGHT CHART

ENGINE MODELS

R-1820-97

CONDITION	FUEL PRESSURE (LB./SQ. IN.)	OIL PRESSURE (LB./SQ. IN.)	OIL TEMP.		COOLANT TEMP.		MAX. PERMISSIBLE DIVING RPM: 2760
			°C	°F	°C	°F	
DESIRED	12-16	75	70	168			ALLOWABLE OIL CONSUMPTION
MAXIMUM	16	80	88	190			NORMAL RATED (MAX. CONT.) 14.5 U.S.QT./HR. 23 IMP.PT./HR.
MINIMUM	12	70					MAX. CRUISE 8.0 U.S.QT./HR. 13 IMP.PT./HR.
IDLING		15					MIN. SPECIFIC 5 U.S.QT./HR. 8 IMP.PT./HR.
							OIL GRADE: (S) 1120 (W) 1100-A

SUPERCHARGER TYPE: TURBO

FUEL GRADE: 100

OCTANE

OPERATING CONDITION	RPM	MANIFOLD PRESSURE (BOOST)	HORSE-POWER	CRITICAL ALTITUDE		USE LOW BLOWER BELOW:	MIXTURE CONTROL POSITION	FUEL FLOW (GAL./HR./ENG.)		MAXIMUM CYL. TEMP.		MAXIMUM DURATION (MINUTES)
				WITH RAM	NO RAM			U.S.	IMP.	°C	°F	
TAKE-OFF	2500	46	1200	27,000		-	A. R.	152	127	260	500	5
WAR EMERGENCY												
MILITARY	2500	46*	1200	27,000		-	A. R.	152	127	260	500	5
NORMAL RATED (MAX. CONT.)	2300	41.5*	1000	30,000		-	A. R.	103	86	232 CLIMB 218 CLIMB	450 424	
MAXIMUM CRUISE	2000	35.2*	750	35,000			A. L.	62.5	52	205	401	
MINIMUM SPECIFIC CONSUMPTION	2000 1940 1780 1700 1600 1400	34.7 33.0 36.0 35.5 34.8 32.5	670 600 650 700 550 450	SEE ENGINE CALIBRATION CURVE			A. L.	52 44 45.5 41.5 37.8 31.2	43 37 38 34.6 31.4 26	205	401	

REMARKS: AIR INTAKE FILTER MUST BE OFF ABOVE 8000 FEET OR DANGEROUS TURBO OVERSPEEDING WILL RESULT. FULL THROTTLE MUST BE USED ABOVE 15,000 FEET OR DANGEROUS TURBO OVERSPEEDING WILL RESULT. DO NOT MANUALLY LEAN. AUTO LEAN GIVES MAXIMUM RANGE. *DECREASE MANIFOLD PRESSURES 1-1/2 INCH PER 1000 FEET ABOVE CRITICAL ALTITUDE.

AIRPLANE MODELS
B-17F

TAKE-OFF, CLIMB & LANDING CHART

ENGINE MODELS
R-1820-97

TAKE-OFF DISTANCE (IN FEET)

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 9,000 FT.		AT 12,000 FT.		AT 15,000 FT.	
		TO CLEAR 50' OB.		TO CLEAR 50' OB.		TO CLEAR 50' OB.		TO CLEAR 50' OB.		TO CLEAR 50' OB.		TO CLEAR 50' OB.	
		GROUND ROLL	CLIMB	GROUND ROLL	CLIMB	GROUND ROLL	CLIMB	GROUND ROLL	CLIMB	GROUND ROLL	CLIMB	GROUND ROLL	CLIMB
65,000	0	3350	1400	4000	5100	4800	5800	3950	5000	4500	5600	5800	6800
	20	2300	3200	2750	3700	3250	4300	2500	3600	3150	4100	3850	5000
	40	1400	2050	1750	2500	2250	3080	1850	2500	2150	2900	2600	3600
57,000	0	2350	3000	2700	3400	3100	3900	2650	3300	3100	3800	3600	4400
	20	1800	2100	1800	2400	2130	2800	1800	2300	2100	2700	2550	3200
	40	1000	1400	1100	1550	1350	1850	1100	1500	1350	1800	1600	2100
50,000	0	1700	2250	1900	2500	2100	2750	1850	2400	2100	2700	2350	3000
	20	1150	1600	1300	1750	1400	1900	1250	1700	1450	1900	1600	2100
	40	650	1000	800	1150	850	1250	750	1100	900	1250	1000	1400

NOTE: INCREASE DISTANCE 10% FOR EACH 10°C ABOVE 0°C (10% FOR EACH 20°F ABOVE 32°F)

ENGINE LIMITS FOR TAKE-OFF 2500 RPM & 46 IN. HG

CLIMB DATA

GROSS WEIGHT (IN LBS.)	TYPE OF CLIMB	COMBAT MISSIONS USE 2300 RPM & 38 IN. HG				FERRY MISSIONS USE 2300 RPM & 38 IN. HG			
		S.L. TO 5,000 FT. ALT.		10,000 FT. ALT.		15,000 FT. ALT.		20,000 FT. ALT.	
		BEST I.A.S. MPH	TIME FROM S.L. MIN.	BEST I.A.S. MPH	TIME FROM S.L. MIN.	BEST I.A.S. MPH	TIME FROM S.L. MIN.	BEST I.A.S. MPH	TIME FROM S.L. MIN.
		CLIMB RATE FT./MIN.	CLIMB RATE FT./MIN.	CLIMB RATE FT./MIN.	CLIMB RATE FT./MIN.	CLIMB RATE FT./MIN.	CLIMB RATE FT./MIN.	CLIMB RATE FT./MIN.	CLIMB RATE FT./MIN.
65,000	COMBAT	135	117	575	135	117	400	140	65
	FERRY	135	117	500	135	117	400	140	65
57,000	COMBAT	135	117	830	135	117	660	360	39
	FERRY	135	117	750	135	117	660	360	39
50,000	COMBAT	135	117	1060	135	117	890	600	28
	FERRY	135	117	1060	135	117	890	600	28

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 9,000 FT.		AT 12,000 FT.		AT 15,000 FT.	
		TO CLEAR 50' OB.		TO CLEAR 50' OB.		TO CLEAR 50' OB.		TO CLEAR 50' OB.		TO CLEAR 50' OB.		TO CLEAR 50' OB.	
		GROUND ROLL	CLIMB	GROUND ROLL	CLIMB	GROUND ROLL	CLIMB	GROUND ROLL	CLIMB	GROUND ROLL	CLIMB	GROUND ROLL	CLIMB
65,000	110	96	3500	1950	3800	2150	4100	2350	4150	2600	4500	2850	4900
	96	96	3500	1950	3800	2150	4100	2350	4150	2600	4500	2850	4900
57,000	110	96	3500	1950	3800	2150	4100	2350	4150	2600	4500	2850	4900
	96	96	3500	1950	3800	2150	4100	2350	4150	2600	4500	2850	4900
50,000	110	96	3500	1950	3800	2150	4100	2350	4150	2600	4500	2850	4900
	96	96	3500	1950	3800	2150	4100	2350	4150	2600	4500	2850	4900

REMARKS

1. I.A.S.: Indicated Air Speed
 2. M.P.H.: Miles Per Hour
 3. S.L.: Sea Level
 4. U.S.: U.S. Gallons
 5. IMP.: Imperial Gallons
 6. N: Note
 7. RED FIGURES HAVE NOT BEEN FLIGHT CHECKED

Take-Off, Climb and Landing Chart

RESTRICTED

I.A.S.: Indicated Air Speed
M.P.: Manifold Pressure [In. Hg]
U.S.G.P.M.: U.S. Gallons Per Hour
IMP.G.P.M.: Imperial Gallons Per Hour
F.Y.: Full Throttle
F.L.: Sea Level

GOLD NUMBERS: Use Auto-Rick
SILVER NUMBERS: Use Auto-Lean
WITH TWO SPEED BLOWER: Use High

TEMPERATURE
S. FOR WARM UP.

INDICATED ALTITUDE CORRECTED FOR FREE AIR TEMPERATURE ALLOW 212 U. S. GALS. - IMP. GALS. TAKE-OFF AND CLIMB TO 5,000 FEET ALTITUDE

IN AL TA
 1 2
 1 2 3 4

ION DATA.
RANGES SHOWN ARE 90% OF FLIGHT TEST VALUES.

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

Flight Operation Chart (no external load). 7 Sheets

MODEL(S) B-17F										FLIGHT OPERATION INSTRUCTION CHART										EXTERNAL LOAD ITEMS NONE																			
SHEET 3 OF 7 SHEETS										GR. WT. 60,000 TO 55,000 POUNDS																													
CONDITION										E.P.M.		M.P. (IN. HG.)		BLOWER POSITION		MIXTURE POSITION		DURATION IN MIN.		U.S. G.P.H.		IMP. G.P.H.		INSTRUCTIONS FOR USING CHART: Select figure in fuel column equal to or less than total amount of fuel in airplanes. 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 in the upper left corner of chart.															
TAKE OFF										2500		48		-		A.R.		5		608		-																	
MILITARY POWER										2500		48		-		A.R.		5		608		-																	
ENGINE ID										R-1820-97																													
ALTERNATE CRUISING CONDITIONS																																							
(NO WIND)																																							
I NORMAL RATED (MAX. CONT.)																																							
RANGE IN AIR MILES										FUEL U.S. GALS.		IV										FUEL U.S. GALS.				V (MAX. RANGE)													
												STATUTE		NAUTICAL		RANGE IN AIR MILES		STATUTE		NAUTICAL										RANGE IN AIR MILES		STATUTE		NAUTICAL					
AT S.L.										AT 30,000		170 U.S. GALLONS NOT AVAILABLE IN FLIGHT										2770		2800		2400		2470		2150		1980		1810					
1530										1330		1900										1650		1820		2280		1980		1850		1650		1480					
1410										1230		1780										1530		1680		2100		1830		1710		1490							
1300										1130		1610										1400		1540		1930		1680		2090		1810							
1180										1030		1470										1280		1400		1750		1520		1900		1650							
1060										920		1320										1150		1260		1450		1370		1800		1490							
940										820		1170										1020		1120		1400		1220		1600		1320							
820										710		1030										900		980		1230		1070		1400		1160							
710										620		880										770		840		1050		910		1200		980							
590										510		730										640		700		880		760		1000		830							
470										410		590										510		560		700		610		800		660							
CONTINUED ON SHEET 4																																							
OPERATING DATA										OPERATING DATA										OPERATING DATA										OPERATING DATA									
R.P.M.										I.A.S. M.P.H.		MIX-TURE		M.P. IN. HG.		U.S. G. P. H.		IMP. G. P. H.		R.P.M.										I.A.S. M.P.H.		MIX-TURE		M.P. IN. HG.		U.S. G. P. H.		IMP. G. P. H.	
2300										164		A.R.		38		413		30000		2100										143		A.L.		31		242		30000	
2300										175		A.R.		38		413		25000		2100										157		A.L.		31		245		25000	
2300										186		A.R.		38		413		20000		2050										150		A.L.		30		216		20000	
2300										194		A.R.		38		413		15000		2050										166		A.L.		30		209		15000	
2300										199		A.R.		38		413		12000		2050										169		A.L.		30		234		12000	
2300										203		A.R.		38		413		9000		2050										173		A.L.		30		228		9000	
2300										209		A.R.		38		413		6000		2050										177		A.L.		30		222		6000	
2300										213		A.R.		38		413		3000		2050										181		A.L.		30		217		3000	
2300										217		A.R.		38		413		S.L.		2050										184		A.L.		30		201		S.L.	

Flight Operation Chart (no external load) 7 Sheets

MODEL (S) B-17F										FLIGHT OPERATION INSTRUCTION CHART SHEET 5 OF 7 SHEETS										EXTERNAL LOAD ITEMS NONE									
FORM ASC-811A										OR. WT. 55,000 TO 50,000 POUNDS																			
CONDITION	R.P.M.	M.P.H.	BLOWER POSITION	MIXTURE POSITION	DURATION IN MIN.	U.S. G.P.H.	IMP. G.P.H.			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 in the upper left corner of chart.																			
TAKE-OFF	2500	146	-	A.R.	5	608	-																						
MILITARY POWER	2500	146	-	A.R.	5	608	-																						
ENGINE (S)	R-1820-97																												

ALTERNATE CRUISING CONDITIONS										INO RESERVE FUEL ALLOWANCE																										
I NORMAL RATED (MAX. CONT.)					II					III					IV					V (MAX. RANGE)																
RANGE IN AIR MILES					RANGE IN AIR MILES					RANGE IN AIR MILES					RANGE IN AIR MILES					RANGE IN AIR MILES																
STATUTE					STATUTE					STATUTE					STATUTE					STATUTE																
NAUTICAL					NAUTICAL					NAUTICAL					NAUTICAL					NAUTICAL																
160 U.S. GALLONS NOT AVAILABLE IN FLIGHT																																				
AT S.L.	1360	1240	1110	990	870	740	620	490	370	250	120	1360	1240	1110	990	870	740	620	490	370	250	120	1360	1240	1110	990	870	740	620	490	370	250	120			
U.S. GALS.	2360	2200	2000	1800	1600	1400	1200	1000	800	600	400	2360	2200	2000	1800	1600	1400	1200	1000	800	600	400	2360	2200	2000	1800	1600	1400	1200	1000	800	600	400	2360		
ALT. IN FEET	30000	25000	20000	15000	12000	9000	6000	3000	S.L.	30000	25000	20000	15000	12000	9000	6000	3000	S.L.	30000	25000	20000	15000	12000	9000	6000	3000	S.L.	30000	25000	20000	15000	12000	9000	6000	3000	S.L.
R.P.M.	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	2300	
M.P.H.	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	227	230	233
M.P.H. TURE	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	224	171	181	191	200	203	206	211	215	218	221	22			

MODEL(S)
B-17F

FLIGHT OPERATION INSTRUCTION CHART

SHEET 8 OF 7 SHEETS

50,000 TO 45,000 POUNDS

EXTERNAL LOAD ITEMS

NONE

FORM ASC-511A

CONDITION

R.P.M.

M.P. (IN. HG.)

BLOWER POSITION

MIXTURE POSITION

DURATION IN MIN.

U.S. G.P.H.

IMP. G.P.H.

TAKE-OFF

2500

46

-

A.R.

5

608

-

MILITARY POWER

2500

46

-

A.R.

5

608

-

ENGINE (S)

R-1820-97

INSTRUCTIONS FOR USING CHART: Select figure in fuel column equal to or less than total amount of fuel in airplanes. 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 emergency. (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.) 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)

1 NORMAL RATED (MAX. CONT.)

RANGE IN AIR MILES

STATUTE

NAUTICAL

FUEL U.S. GALLS.

AT 30,000

AT 35,000

AT 40,000

II

RANGE IN AIR MILES

STATUTE

NAUTICAL

132 U.S. GALLONS NOT AVAILABLE IN FLIGHT

1090

950

III

RANGE IN AIR MILES

STATUTE

NAUTICAL

1420

1250

1070

930

770

610

IV

RANGE IN AIR MILES

STATUTE

NAUTICAL

1600

1400

1200

1040

870

700

V (MAX. RANGE)

RANGE IN AIR MILES

STATUTE

NAUTICAL

1732

1600

1400

1200

1000

800

OPERATING DATA

R.P.M.

MIX-TURE

M.P. (IN. HG.)

U.S. G. P. H.

IMP. G. P. H.

2300

178

A.R.

38

413

2300

185

A.R.

38

413

2300

192

A.R.

38

413

2300

203

A.R.

38

413

2300

208

A.R.

38

413

2300

211

A.R.

38

413

2300

214

A.R.

38

413

2300

220

A.R.

38

413

2300

226

A.R.

38

413

OPERATING DATA

R.P.M.

MIX-TURE

M.P. (IN. HG.)

U.S. G. P. H.

IMP. G. P. H.

2100

158

A.R.

32

302

2100

166

A.R.

32

290

2100

173

A.R.

31.5

277

2100

179

A.L.

31

264

2100

184

A.L.

31

259

2100

187

A.L.

31

250

2100

190

A.L.

31

243

2100

193

A.L.

30.5

236

2100

195

A.L.

30.5

228

OPERATING DATA

R.P.M.

MIX-TURE

M.P. (IN. HG.)

U.S. G. P. H.

IMP. G. P. H.

2050

151

A.L.

31

255

2050

161

A.L.

31

247

2050

170

A.L.

30.5

239

2050

176

A.L.

30

229

2050

179

A.L.

30

220

2050

181

A.L.

30

213

2050

183

A.L.

30

206

2050

185

A.L.

29.5

199

2000

188

A.L.

29

193

OPERATING DATA

R.P.M.

MIX-TURE

M.P. (IN. HG.)

U.S. G. P. H.

IMP. G. P. H.

2000

144

A.L.

30

216

2050

156

A.L.

30

214

2050

162

A.L.

30

204

2000

168

A.L.

29

195

2000

170

A.L.

29

188

2000

172

A.L.

29

181

1900

175

A.L.

29

178

1900

176

A.L.

29

168

1850

176

A.L.

29

161

OPERATING DATA

R.P.M.

MIX-TURE

M.P. (IN. HG.)

U.S. G. P. H.

IMP. G. P. H.

2000

144

A.L.

30

216

2050

156

A.L.

30

214

2050

162

A.L.

30

204

2000

168

A.L.

29

195

2000

170

A.L.

29

188

2000

172

A.L.

29

181

1900

175

A.L.

29

178

1900

176

A.L.

29

168

1850

176

A.L.

29

161

OPERATING DATA

R.P.M.

MIX-TURE

M.P. (IN. HG.)

U.S. G. P. H.

IMP. G. P. H.

2000

144

A.L.

30

216

2050

156

A.L.

30

① INDICATED ALTITUDE CORRECTED FOR FREE AIR TEMPERATURE.
② ALLOW 132 U.S. GALS. - IMP. GALS. FOR WARM UP.

TAKE OFF AND CLIMB TO 5000 FEET ALTITUDE
RETURN FUEL FLOWS TO TANK

USE FUEL FROM TANKS IN THE FOLLOWING ORDER:

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

[illegible]

BOLD NUMBERS: Use Auto-Rich
LIGHT NUMBERS: Use Auto-Less
WITH TWO SPEED SLOWER: Use high
slower above heavy line only

J.A.S.: Indicated 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
P.P.: Full Throttle
L.: See Lead

RANGES SHOWN ARE 90% OF FLIGHT TEST VALUES.

Flight Operation Chart (no external load) 7 Sheets

Flight Operation Chart (no external load) 7 Sheets

RESTRICTED
AN 01-20EF-1

MODEL(S) B-17F				FLIGHT OPERATION INSTRUCTION CHART SHEET 1 OF 3 SHEETS				EXTERNAL LOAD ITEMS (2) 2000 LB. BOMBS			
FORM ASC-511A				GR. WT. 65,000 TO 60,000 POUNDS							
CONDITION	R.P.M.	M.P.	MIXTURE POSITION	U.S. G.P.H.	IMP. G.P.H.	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 in the upper left corner of chart.					
TAKE-OFF	2500	46	A.R.	5	608						
MILITARY POWER	2500	46	A.R.	5	608						
ENGINE (S)	R-1820-97										
ALTERNATE CRUISING CONDITIONS											
I NO WIND											
1 NORMAL RATED (MAX. CONT.)											
RANGE IN AIR MILES		FUEL U.S. GALLONS		III		IV		V (MAX. RANGE)			
STATUTE	NAUTICAL	STATUTE	NAUTICAL	STATUTE	NAUTICAL	STATUTE	NAUTICAL	STATUTE	NAUTICAL		
AT 25,000	AT 25,000	AT 25,000	AT 25,000	AT 25,000	AT 25,000	AT 25,000	AT 25,000	AT 25,000	AT 25,000		
1110	970	1280	1080	1410	1220	1670	1360	2282	1720	1490	
1050	910	1200	1040	1340	1160	1490	1300	2100	1630	1420	
950	830	1080	940	1210	1050	1340	1160	1800	1470	1280	
840	730	980	840	1080	940	1190	1040	1600	1310	1140	
740	640	840	730	940	820	1040	900	1400	1150	1000	
630	550	720	630	810	700	900	780	1200	980	850	
530	460	600	520	670	580	750	650	1000	820	710	
420	370	480	420	540	470	600	520	800	680	570	
320	280	380	310	400	360	450	390	600	490	420	
210	180	240	210	270	240	300	260	400	330	290	
100	90	120	100	130	110	150	130	200	180	140	
OPERATING DATA		OPERATING DATA		OPERATING DATA		OPERATING DATA		OPERATING DATA		OPERATING DATA	
R.P.M.	I.A.S. M.P.H.	I.A.S. M.P.H.	M.P. IN. Hg	M.P. IN. Hg	M.P. IN. Hg	R.P.M.	I.A.S. M.P.H.	I.A.S. M.P.H.	M.P. IN. Hg	M.P. IN. Hg	M.P. IN. Hg
2300	158	172	38	413	413	2200	148	162	32	310	310
2300	158	172	38	413	413	2200	148	162	32	310	310
2300	179	183	38	413	413	2200	159	164	32	307	307
2300	183	188	38	413	413	2200	164	168	32	298	298
2300	188	192	38	413	413	2200	168	172	32	290	290
2300	192	199	38	413	413	2200	172	175	32	281	281
2300	199	203	38	413	413	2200	175	179	32	276	276
INDICATED ALTITUDE CORRECTED FOR FREE AIR TEMPERATURE		ALLOW 182 U.S. GALLONS		ALLOW 182 U.S. GALLONS		ALLOW 182 U.S. GALLONS		ALLOW 182 U.S. GALLONS		ALLOW 182 U.S. GALLONS	
TAKE-OFF AND CLIMB TO 5000 FEET ALTITUDE		RETURN FUEL FLOWS TO TANK		USE FUEL FROM TANKS IN THE FOLLOWING ORDER		REFER TO "SPECIFIC ENGINE FLIGHT CHART" FOR ADDITIONAL ENGINE OPERATION DATA.		RANGES SHOWN ARE 90% OF FLIGHT TEST VALUES.		RANGES SHOWN ABOVE APPLY UP TO 8000 FT. ONLY.	

Flight Operation Chart (external load - two 2000-pound bombs) 3 Sheets

RESTRICTED

Flight Operation Chart (external load - two 2000- pound bombs) 3 Sheets

[illegible]

RANGES SHOWN ARE 90% OF FLIGHT TEST VALUES.

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Flight Operation Chart (external load - two 2000- pound bombs) 3 Sheets

[illegible]

MODEL(S) B-17F										FLIGHT OPERATION INSTRUCTION CHART SHEET 2 OF 2 60,000 POUNDS										EXTERNAL LOAD ITEMS (2) 4000 LB. BOMBS									
FORM ASC-111A										GR. WT. 60,000 TO 55,000 POUNDS																			
CONDITION	R.P.M.	M.P.	BLOWER POSITION	MIXTURE POSITION	DURATION IN MIN.	U.S. G.P.H.	IMP. G.P.H.																						
TAKE-OFF	2500	46	-	A.R.	5	808	-																						
MILITARY POWER	2500	46	-	A.R.	5	808	-																						
ENGINE 131	R-1820-97																												

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 in the upper left corner of chart.

ALTERNATE CRUISING CONDITIONS										NO RESERVE FUEL ALLOWANCE														
I					II					III					IV					V (MAX. RANGE)				
RANGE IN AIR MILES					RANGE IN AIR MILES					RANGE IN AIR MILES					RANGE IN AIR MILES					RANGE IN AIR MILES				
STATUTE					STATUTE					STATUTE					STATUTE					STATUTE				
NAUTICAL					NAUTICAL					NAUTICAL					NAUTICAL					NAUTICAL				
AT 5,000					AT 5,000					AT 5,000					AT 5,000					AT 5,000				
410					410					410					410					410				
310					310					310					310					310				
210					210					210					210					210				
100					100					100					100					100				
800					800					800					800					800				
600					600					600					600					600				
400					400					400					400					400				
200					200					200					200					200				
180					180					180					180					180				
160					160					160					160					160				
140					140					140					140					140				
120					120					120					120					120				
100					100					100					100					100				
80					80					80					80					80				
60					60					60					60					60				
40					40					40					40					40				
20					20					20					20					20				
10					10					10					10					10				
5					5					5					5					5				
2					2					2					2					2				
1					1					1					1					1				

OPERATING DATA					OPERATING DATA					OPERATING DATA					OPERATING DATA					OPERATING DATA				
R.P.M.	L.A.S.	MIX-TURE	M.P.	U.S. G.P.H.	R.P.M.	L.A.S.	MIX-TURE	M.P.	U.S. G.P.H.	R.P.M.	L.A.S.	MIX-TURE	M.P.	U.S. G.P.H.	R.P.M.	L.A.S.	MIX-TURE	M.P.	U.S. G.P.H.	R.P.M.	L.A.S.	MIX-TURE	M.P.	U.S. G.P.H.
2300	166	A.R.	38	413	2200	140	A.R.	33	320	2100	148	A.L.	31	259	2050	144	A.L.	30.5	224	15000	15000	15000	15000	15000
2300	166	A.R.	38	413	2200	148	A.R.	33	316	2100	153	A.L.	31	256	2050	148	A.L.	30	220	12000	12000	12000	12000	12000
2300	176	A.R.	38	413	2150	156	A.R.	32.5	306	2100	158	A.L.	31	251	2050	152	A.L.	30	218	10000	10000	10000	10000	10000
2300	179	A.R.	38	413	2150	160	A.R.	32	300	2100	162	A.L.	31	248	2050	156	A.L.	30	213	8000	8000	8000	8000	8000
2300	184	A.R.	38	413	2150	163	A.R.	32	293	2100	166	A.L.	31	242	2050	160	A.L.	30	210	6000	6000	6000	6000	6000
2300	187	A.R.	38	413	2150	166	A.R.	31.5	285	2100	170	A.L.	31	237	2050	164	A.L.	30	206	4000	4000	4000	4000	4000
2300	192	A.R.	38	413	2100	169	A.L.	31.5	277	2100	172	A.L.	31	270	2050	168	A.L.	30	210	3000	3000	3000	3000	3000
2300	196	A.R.	38	413	2100	172	A.L.	31	270	2100	172	A.L.	31	270	2100	172	A.L.	31	270	S.L.	S.L.	S.L.	S.L.	S.L.

1 INDICATED ALTITUDE CORRECTED FOR FREE AIR TEMPERATURE.
2 ALLOW - U.S. GALS. - IMP. GALS. FOR WARM UP.
3 TAKE-OFF AND CLIMB TO - FEET ALTITUDE
RETURN FUEL FLOWS TO TANK.
USE FUEL FROM TANKS IN THE FOLLOWING ORDER:
BENE TO "SPECIFIC ENGINE RIGHT CHART" FOR ADDITIONAL ENGINE OPERATION DATA.

LEGEND
1. INDICATED ALTITUDE CORRECTED FOR FREE AIR TEMPERATURE.
2. ALLOW - U.S. GALS. - IMP. GALS. FOR WARM UP.
3. TAKE-OFF AND CLIMB TO - FEET ALTITUDE
RETURN FUEL FLOWS TO TANK.
USE FUEL FROM TANKS IN THE FOLLOWING ORDER:
BENE TO "SPECIFIC ENGINE RIGHT CHART" FOR ADDITIONAL ENGINE OPERATION DATA.

NOTES:
L.A.S. - Indicated 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
P.L. - Fuel Thrust
S.L. - Sea Level

RANGES SHOWN ARE 90% OF FLIGHT TEST VALUES.

Flight Operation Chart (external load - two 4000 - pound bombs) 2 Sheets

MODEL (S) B-17F										FLIGHT OPERATION INSTRUCTION CHART										EXTERNAL LOAD ITEMS 1 FEATHERED PROPELLER									
3 ENGINE OPERATION										SHEET 1 OF 4 SHEETS										GR. WT. 60,000 TO 55,000 POUNDS									
CONDITION	R.P.M.	M.P.H.	LOWER POSITION	MIXTURE	DURATION IN MIN.	U.S. G.P.H.	IMP. G.P.H.	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 in the upper left corner of chart.																					
TAKE-OFF	2500	46	-	A.R.	5	458	-																						
MILITARY POWER	2600	48	-	A.R.	5	458	-																						
ENGINE (S)	R-1820-97																												
1 NORMAL RATED (MAX. CONT.)										ALTERNATE CRUISING CONDITIONS										NO RESERVE FUEL ALLOWANCE									
FUEL U.S. GALS. ①										II										IV									
RANGE IN AIR MILES										III										V (MAX. RANGE)									
STATUTE NAUTICAL										STATUTE NAUTICAL										STATUTE NAUTICAL									
AT S.L. AT 15,000 AT S.L. AT 15,000										170 U.S. GALLONS NOT AVAILABLE IN FLIGHT.																			
1550										1720										1900									
1430										1590										1750									
1310										1460										1600									
1190										1320										1480									
1070										1190										1310									
950										1080										1170									
840										930										1020									
720										800										880									
600										660										730									
480										530										590									
2770										2770										2770									
2600										2600										2600									
2400										2400										2400									
2200										2200										2200									
2000										2000										2000									
1800										1800										1800									
1600										1600										1600									
1400										1400										1400									
1200										1200										1200									
1000										1000										1000									
800										800										800									
30000										30000										30000									
25000										25000										25000									
20000										20000										20000									
15000										15000										15000									
12000										12000										12000									
9000										9000										9000									
6000										6000										6000									
3000										3000										3000									
S.L.										S.L.										S.L.									
2300 159 A.R. 38 310										2150 152 A.R. 32.5 230										15000 AND 29 INCHES USE HIGHER RPM'S									
2300 165 A.R. 38 310										2150 157 A.R. 32 227										12000 AND RECOMMENDED HP'S. USE AUTO-LEAN MIXTURE WHEN AT OR BELOW 2100 RPM.									
2300 171 A.R. 38 310										2150 152 A.R. 31.5 211										RANGES SHOWN ABOVE APPLY UP TO 6000 FT. ONLY.									
2300 176 A.R. 38 310																													
2300 181 A.R. 38 310																													
2300 185 A.R. 38 310																													

U.S.: Indicated Air Speed
M.P.H.: Manifold Pressure (in. Hg)
U.S.G.P.H.: U.S. Gallons Per Hour
IMP.G.P.H.: Imperial Gallons Per Hour
R.P.M.: Full Throttle
S.L.: Sea Level

SOLD NUMBERS: Use Auto-Lean
LIGHT NUMBERS: Use Auto-Lean
WITH TWO SPEED BLOWER: Use High
blower above heavy line only

① INDICATED ALTITUDE CORRECTED FOR FREE AIR TEMPERATURE.
ALLOW 170 U.S. GALS. — IMP. GALS. FOR WARM UP.
TAKE-OFF AND CLIMB TO 5000 — FEET ALTITUDE
RETURN FUEL FLOWS TO TANK.
USE FUEL FROM TANKS IN THE FOLLOWING ORDER

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

RANGES SHOWN ARE 90% OF FLIGHT TEST VALUES.

Flight Operation Chart (one propeller feathered) 4 Sheets

[illegible]

① INDICATED ALTITUDE CORRECTED FOR FREE AIR TEMPERATURE.
② ALLOW 160 U.S. GALS. — IMP. GALS. FOR WARM UP.

TAXE-OFF AND CLIMB TO 5000 FEET ALTITUDE

USE FUEL FROM TANKS IN THE FOLLOWING ORDER:

... ..

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

RANGES SHOWN ARE 90% OF FLIGHT TEST VALUES.

**HOLD NUMBERS; Use Auto-Rick
LIGHT NUMBERS; Use Auto-Less
WITH TWO SPEED BLOWER; Use high
blower above heavy line only**

% OF FLIGHT TEST VA

J.A.S.: Indicated Air Speed
M.P.: Manifold Pressure (In. Hg)
U.S.G.P.H.: U. S. Gallons Per Hour
I.M.P.G.P.H.: Imperial Gallons Per Hour
P.T.: Full Throttle
L.L.: Sea Level

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Flight Operation Chart (one propeller feathered) 4 Sheets

MODEL (S) B-17F 3 ENGINE OPERATION				FLIGHT OPERATION INSTRUCTION CHART SHEET 4 OF 4 SHEETS GR. WT. 45,000 TO 40,000 POUNDS				EXTERNAL LOAD ITEMS I FEATHERED PROPELLER					
CONDITION	R.P.M.	M.P.H.	BLOWER POSITION	MIXTURE POSITION	DURATION IN MIN.	U.S. G.P.H.	IMP. G.P.H.	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 in the upper left corner of chart.					
TAKE-OFF	2500	46	-	A.R.	5	458	-						
MILITARY POWER	2500	46	-	A.R.	5	458	-						
ENGINE ID	R-1620-97												

ALTERNATE CRUISING CONDITIONS (NO WIND)															
I NORMAL RATE (MAX. CONT.)				II				III				IV (MAX. RANGE)			
RANGE IN AIR MILES				RANGE IN AIR MILES				RANGE IN AIR MILES				RANGE IN AIR MILES			
STATUTE				STATUTE				STATUTE				STATUTE			
NAUTICAL				NAUTICAL				NAUTICAL				NAUTICAL			
AT S.L.	AT 25,000	AT 15,000	AT 10,000	AT S.L.	AT 25,000	AT 15,000	AT 10,000	AT S.L.	AT 25,000	AT 15,000	AT 10,000	AT S.L.	AT 25,000	AT 15,000	AT 10,000
700	560	430	280	140	700	560	430	280	140	700	560	430	280	140	700
1000	800	600	400	200	1000	800	600	400	200	1000	800	600	400	200	1000
1140	910	690	450	230	1140	910	690	450	230	1140	910	690	450	230	1140

OPERATING DATA				OPERATING DATA				OPERATING DATA				OPERATING DATA							
R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.	R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.	R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.	R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.				
2300	144	A.R.	38	310	2100	149	A.L.	31	199	2100	154	A.L.	31	196	2100	159	A.L.	31	194
2300	159	A.R.	38	310	2100	165	A.L.	31	191	2100	170	A.L.	31	186	2100	175	A.L.	31	182
2300	168	A.R.	38	310	2100	173	A.L.	31	182	2100	178	A.L.	31	180	2100	183	A.L.	31	178
2300	178	A.R.	38	310	2100	186	A.L.	31	175	2100	190	A.L.	31	171	2100	194	A.L.	31	168
2300	183	A.R.	38	310	2100	190	A.L.	31	166	2100	198	A.L.	31	161	2100	200	A.L.	31	158
2300	186	A.R.	38	310	2100	194	A.L.	31	161	2100	198	A.L.	31	158	2100	200	A.L.	31	156
2300	190	A.R.	38	310	2100	200	A.L.	31	155	2100	205	A.L.	31	150	2100	208	A.L.	31	148
2300	194	A.R.	38	310	2100	205	A.L.	31	150	2100	210	A.L.	31	146	2100	215	A.L.	31	144
2300	198	A.R.	38	310	2100	208	A.L.	31	148	2100	215	A.L.	31	142	2100	220	A.L.	31	140

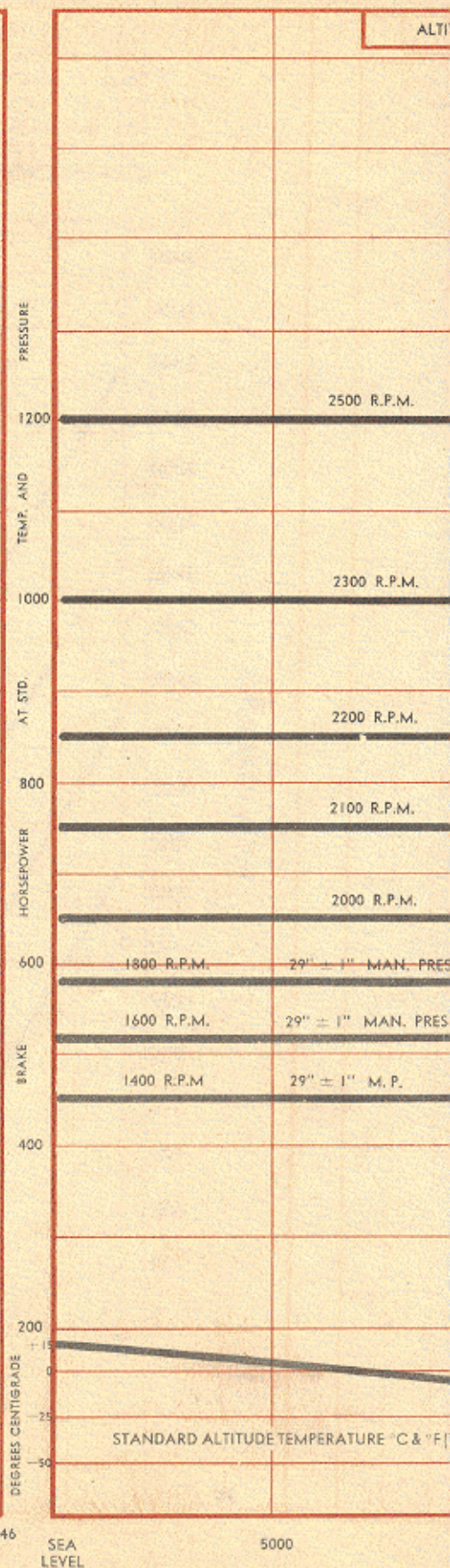
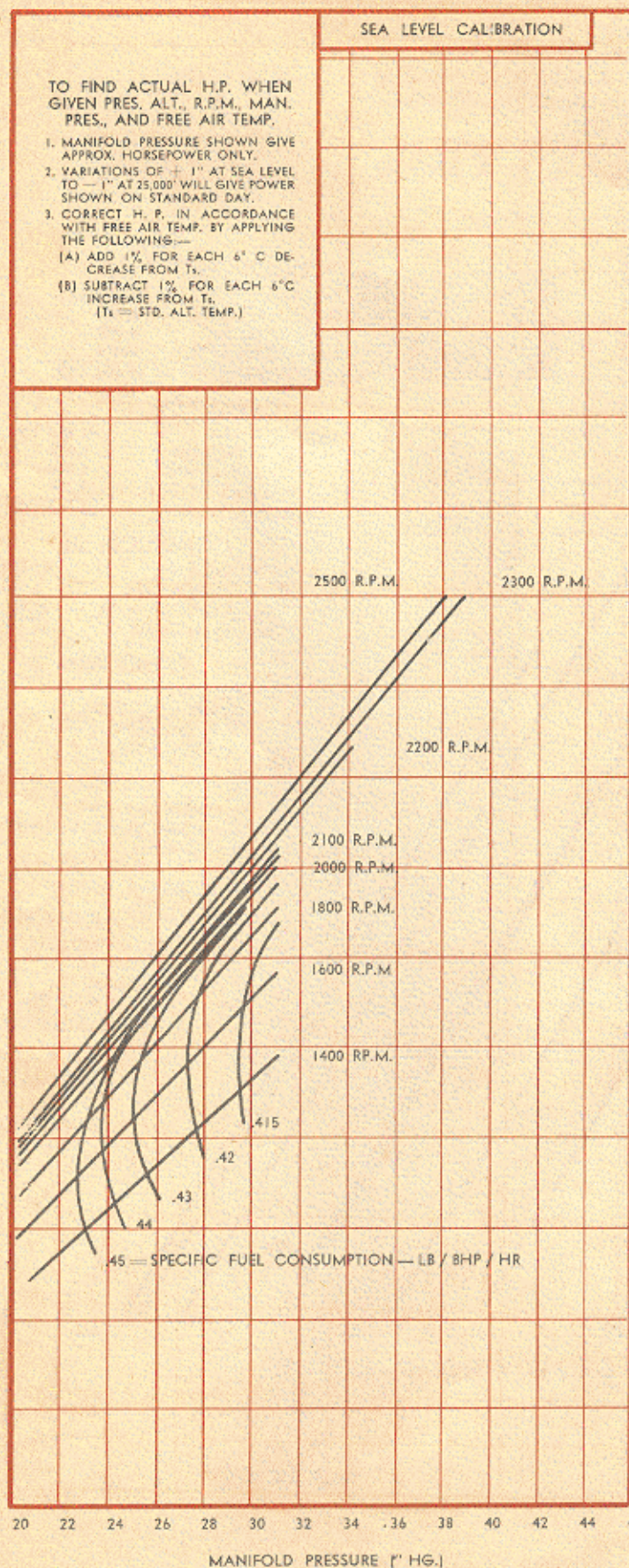
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R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.	R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.	R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.	R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.				
2300	144	A.R.	38	310	2100	149	A.L.	31	199	2100	154	A.L.	31	196	2100	159	A.L.	31	194
2300	159	A.R.	38	310	2100	165	A.L.	31	191	2100	170	A.L.	31	186	2100	175	A.L.	31	182
2300	168	A.R.	38	310	2100	173	A.L.	31	182	2100	178	A.L.	31	180	2100	183	A.L.	31	178
2300	178	A.R.	38	310	2100	186	A.L.	31	175	2100	190	A.L.	31	171	2100	194	A.L.	31	168
2300	183	A.R.	38	310	2100	190	A.L.	31	166	2100	198	A.L.	31	161	2100	200	A.L.	31	158
2300	186	A.R.	38	310	2100	194	A.L.	31	161	2100	198	A.L.	31	158	2100	200	A.L.	31	156
2300	190	A.R.	38	310	2100	200	A.L.	31	155	2100	205	A.L.	31	150	2100	208	A.L.	31	148
2300	194	A.R.	38	310	2100	205	A.L.	31	150	2100	210	A.L.	31	146	2100	215	A.L.	31	144
2300	198	A.R.	38	310	2100	208	A.L.	31	148	2100	215	A.L.	31	142	2100	220	A.L.	31	140

OPERATING DATA				OPERATING DATA				OPERATING DATA				OPERATING DATA							
R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.	R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.	R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.	R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.				
2300	144	A.R.	38	310	2100	149	A.L.	31	199	2100	154	A.L.	31	196	2100	159	A.L.	31	194
2300	159	A.R.	38	310	2100	165	A.L.	31	191	2100	170	A.L.	31	186	2100	175	A.L.	31	182
2300	168	A.R.	38	310	2100	173	A.L.	31	182	2100	178	A.L.	31	180	2100	183	A.L.	31	178
2300	178	A.R.	38	310	2100	186	A.L.	31	175	2100	190	A.L.	31	171	2100	194	A.L.	31	168
2300	183	A.R.	38	310	2100	190	A.L.	31	166	2100	198	A.L.	31	161	2100	200	A.L.	31	158
2300	186	A.R.	38	310	2100	194	A.L.	31	161	2100	198	A.L.	31	158	2100	200	A.L.	31	156
2300	190	A.R.	38	310	2100	200	A.L.	31	155	2100	205	A.L.	31	150	2100	208	A.L.	31	148
2300	194	A.R.	38	310	2100	205	A.L.	31	150	2100	210	A.L.	31	146	2100	215	A.L.	31	144
2300	198	A.R.	38	310	2100	208	A.L.	31	148	2100	215	A.L.	31	142	2100	220	A.L.	31	140

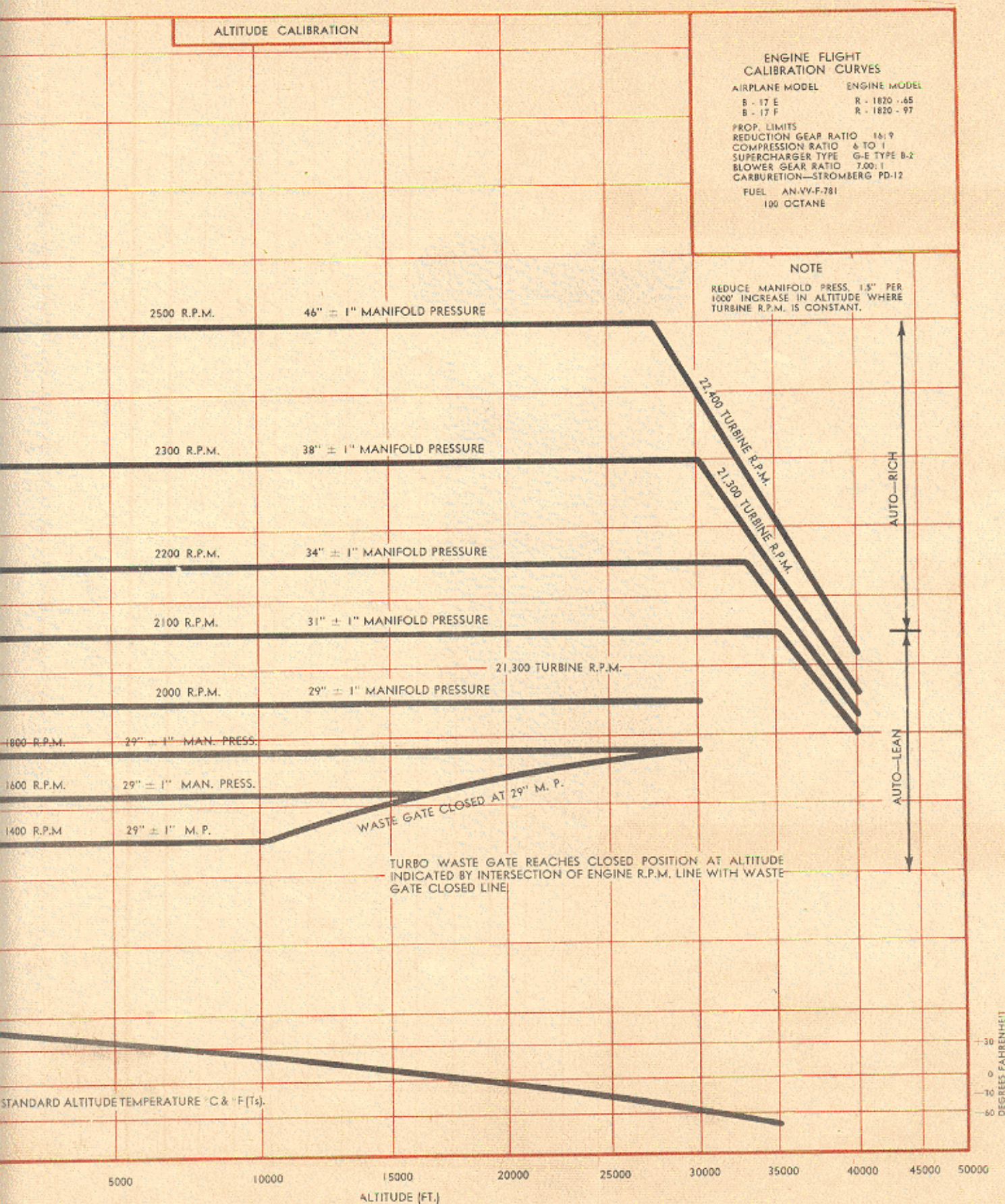
OPERATING DATA				OPERATING DATA				OPERATING DATA				OPERATING DATA							
R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.	R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.	R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.	R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.				
2300	144	A.R.	38	310	2100	149	A.L.	31	199	2100	154	A.L.	31	196	2100	159	A.L.	31	194
2300	159	A.R.	38	310	2100	165	A.L.	31	191	2100	170	A.L.	31	186	2100	175	A.L.	31	182
2300	168	A.R.	38	310	2100	173	A.L.	31	182	2100	178	A.L.	31	180	2100	183	A.L.	31	178
2300	178	A.R.	38	310	2100	186	A.L.	31	175	2100	190	A.L.	31	171	2100	194	A.L.	31	168
2300	183	A.R.	38	310	2100	190	A.L.	31	166	2100	198	A.L.	31	161	2100	200	A.L.	31	158
2300	186	A.R.	38	310	2100	194	A.L.	31	161	2100	198	A.L.	31	158	2100	200	A.L.	31	156
2300	190	A.R.	38	310	2100	200	A.L.	31	155	2100	205	A.L.	31	150	2100	208	A.L.	31	148
2300	194	A.R.	38	310	2100	205	A.L.	31	150	2100	210	A.L.	31	146	2100	215	A.L.	31	144
2300	198	A.R.	38	310	2100	208	A.L.	31	148	2100	215	A.L.	31	142	2100	220	A.L.	31	140

OPERATING DATA				OPERATING DATA				OPERATING DATA				OPERATING DATA							
R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.	R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.	R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.	R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.				
2300	144	A.R.	38	310	2100	149	A.L.	31	199	2100	154	A.L.	31	196	2100	159	A.L.	31	194
2300	159	A.R.	38	310	2100	165	A.L.	31	191	2100	170	A.L.	31	186	2100	175	A.L.	31	182
2300	168	A.R.	38	310	2100	173	A.L.	31	182	2100	178	A.L.	31	180	2100	183	A.L.	31	178
2300	178	A.R.	38	310	2100	186	A.L.	31	175	2100	190	A.L.	31	171	2100	194	A.L.	31	168
2300	183	A.R.	38	310	2100	190	A.L.	31	166	2100	198	A.L.	31	161	2100	200	A.L.	31	158
2300	186	A.R.	38	310	2100	194	A.L.	31	161	2100	198	A.L.	31	158	2100	200	A.L.	31	156
2300	190	A.R.	38	310	2100	200	A.L.	31	155	2100	205	A.L.	31	150	2100	208	A.L.	31	148
2300	194	A.R.	38	310	2100	205	A.L.	31	150	2100	210	A.L.	31	146	2100	215	A.L.	31	144
2300	198	A.R.	38	310	2100	208	A.L.	31	148	2100	215	A.L.	31	142	2100	220	A.L.	31	140

OPERATING DATA				OPERATING DATA				OPERATING DATA				OPERATING DATA							
R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.	R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.	R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.	R.P.M.	I.A.S. M.P.H.	MIX. TURE IN. Hg	U.S. G. P. H.				
2300	144	A.R.	38	310	2100	149	A.L.	31	199	2100	154	A.L.	31	196	2100	159	A.L.	31	194
2300	159	A.R.	38	310	2100	165	A.L.	31	191	2100	170	A.L.	31	186	2100	175	A.L.	31	182
2300	168	A.R.	38	310	2100	173	A.L.	31	182	2100	178	A.L.	31	180	2100	183	A.L.	31	178
2300	178	A.R.	38	310	2100	186	A.L.	31	175	2100	190	A.L.	31	171	2100	194	A.L.	31	168
2300	183	A.R.	38	310	2100	190	A.L.	31	166	2100	198	A.L.	31	161	2100	200	A.L.	31	158
2300	186	A.R.	38	310	2100	194	A.L.	31	161	2100	198	A.L.	31	158	2100	200	A.L.	31	156
2300	190	A.R																	

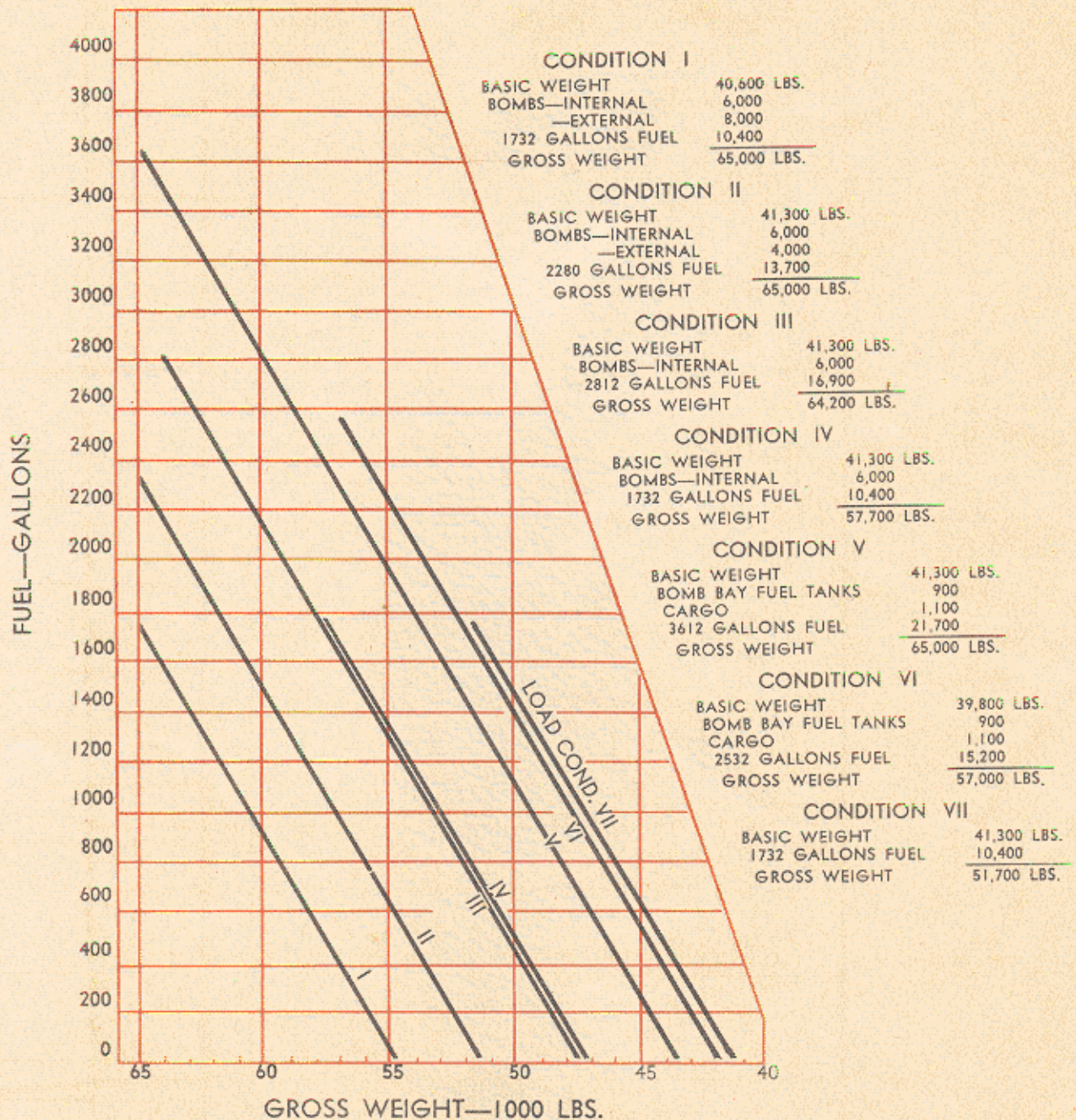


Engine Flight Calibration Curve

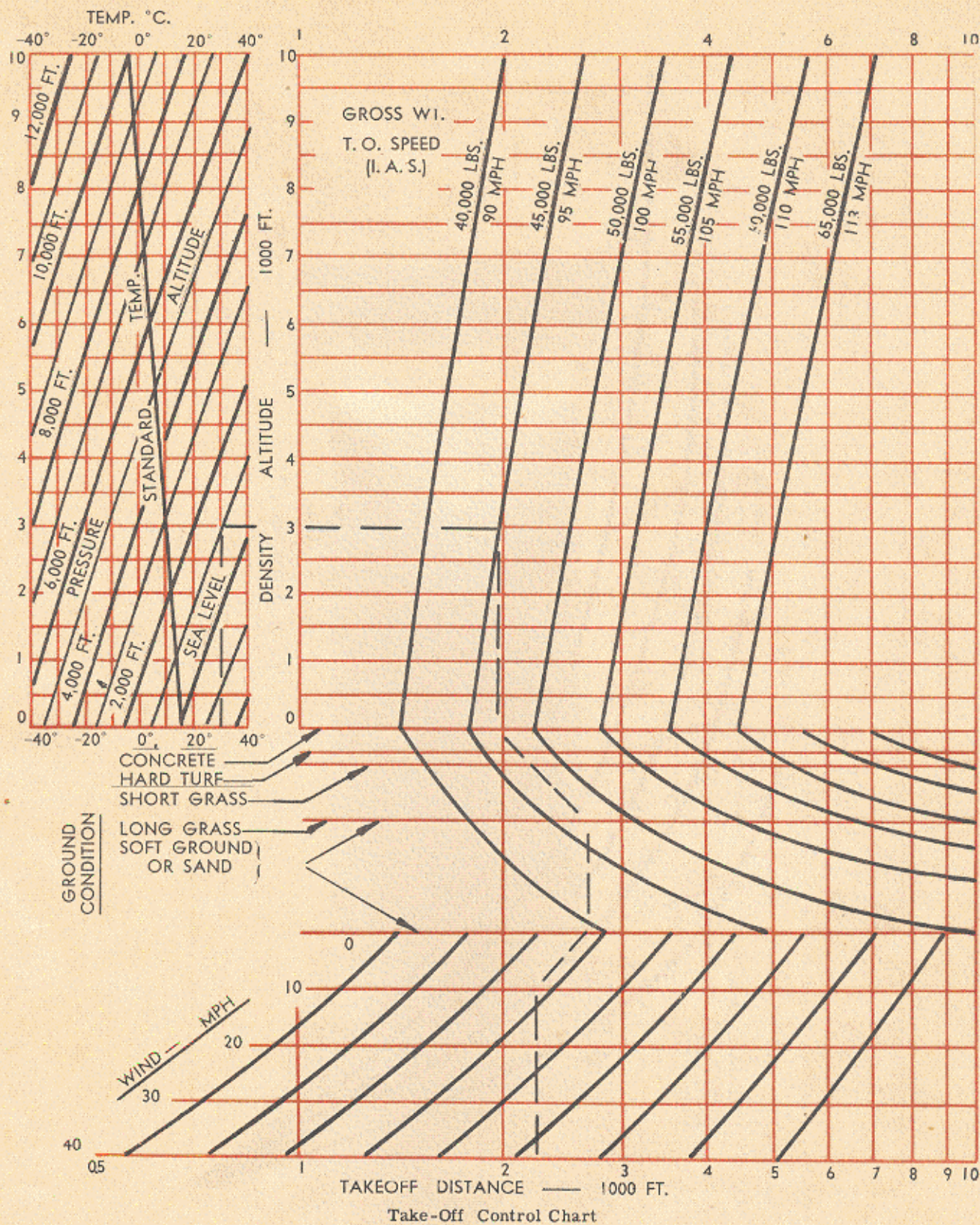


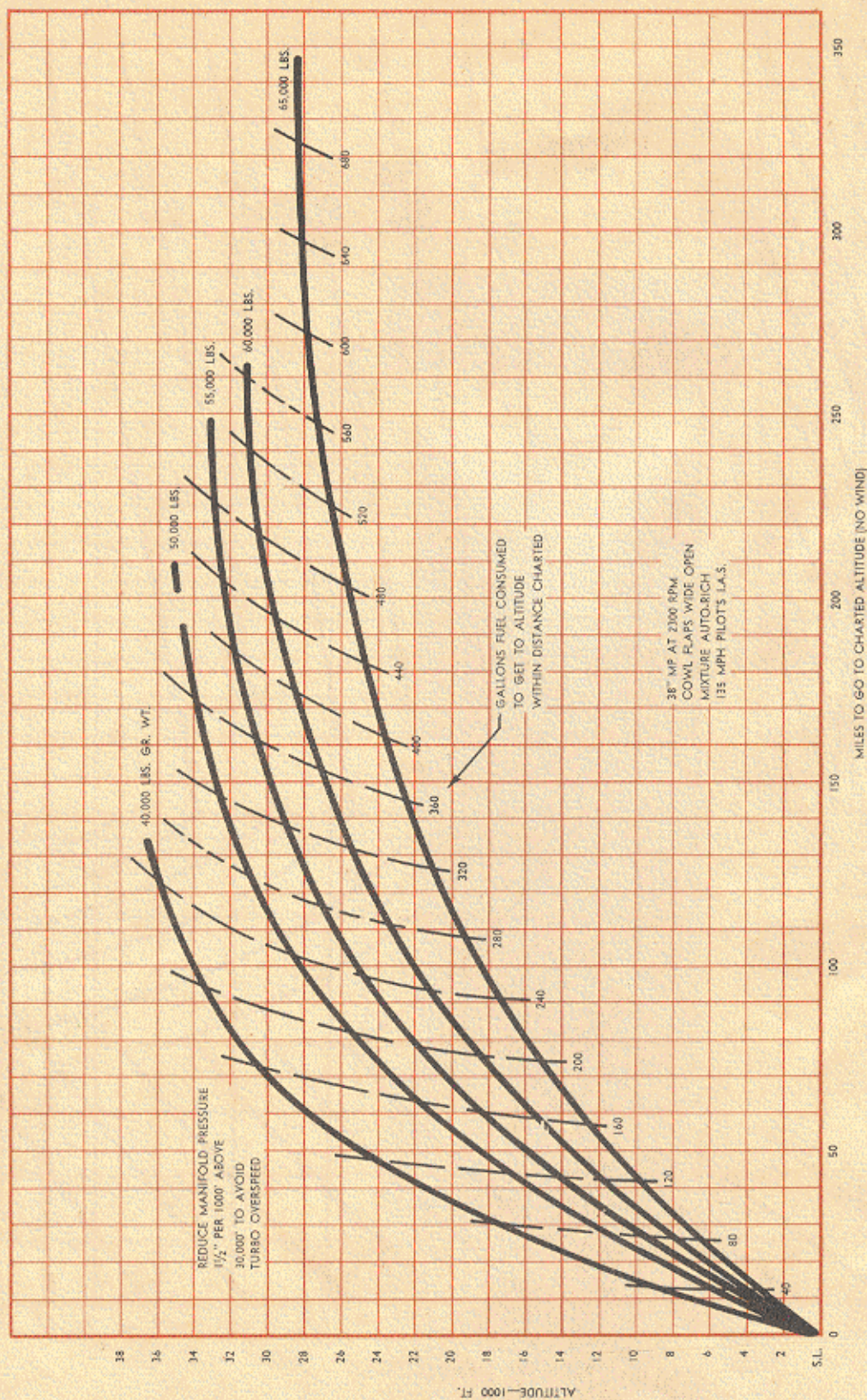
LOAD CONDITIONS INCLUDE IN BASIC WEIGHT:

CREW OF NINE
NINE 50 CALIBER GUNS
3500 ROUNDS AMMUNITION EXCEPT I = 1170 ROUNDS
900 LBS. MISCELLANEOUS EQUIPMENT
144 GALLONS OIL
1500 LBS. EXTRA WING TANKS IN
CONDITIONS I, II, III, IV, V, AND VII.



Loading Chart

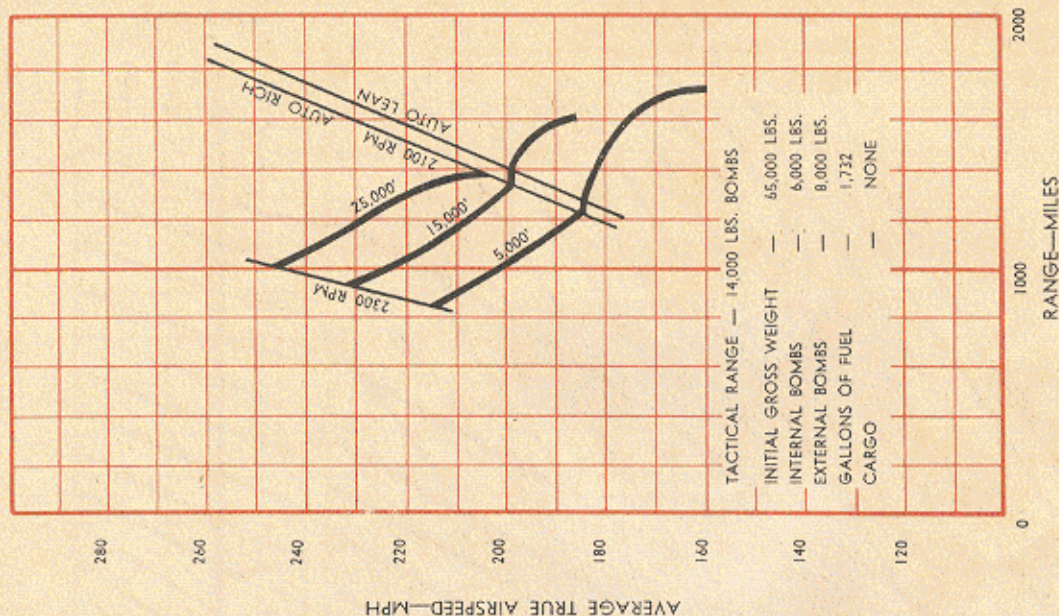




Climb Control Chart

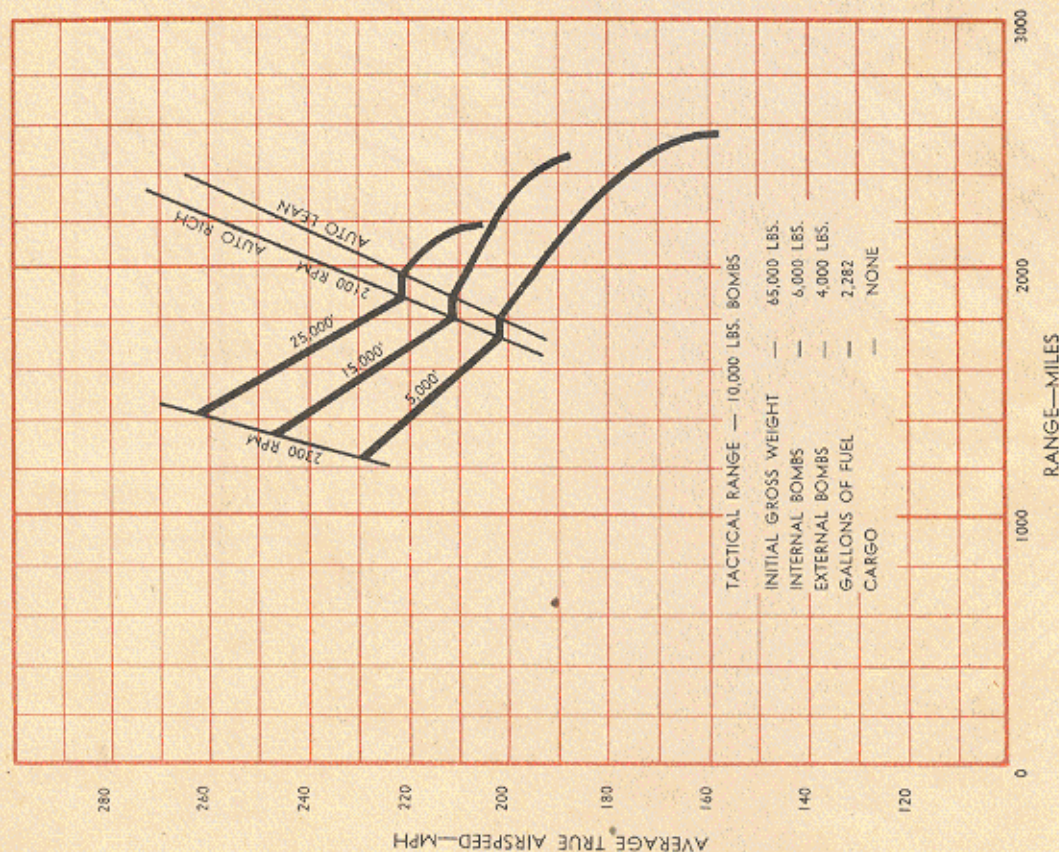


GROSS WT. — 65,000 LBS.



RANGE VS. AVERAGE TRUE AIRSPEED

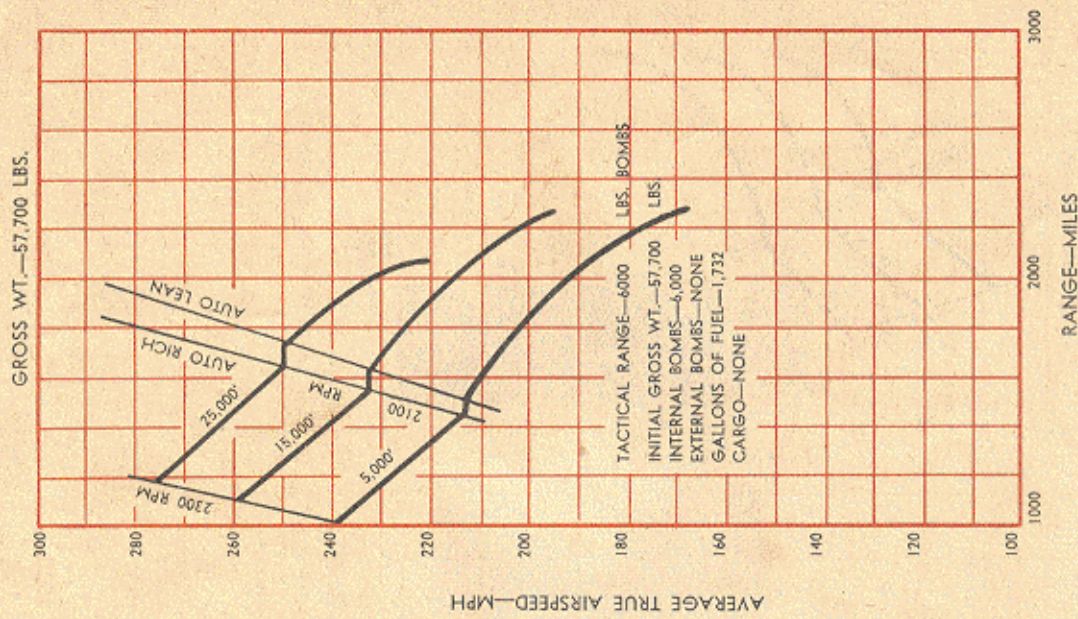
GROSS WT. — 65,000 LBS.



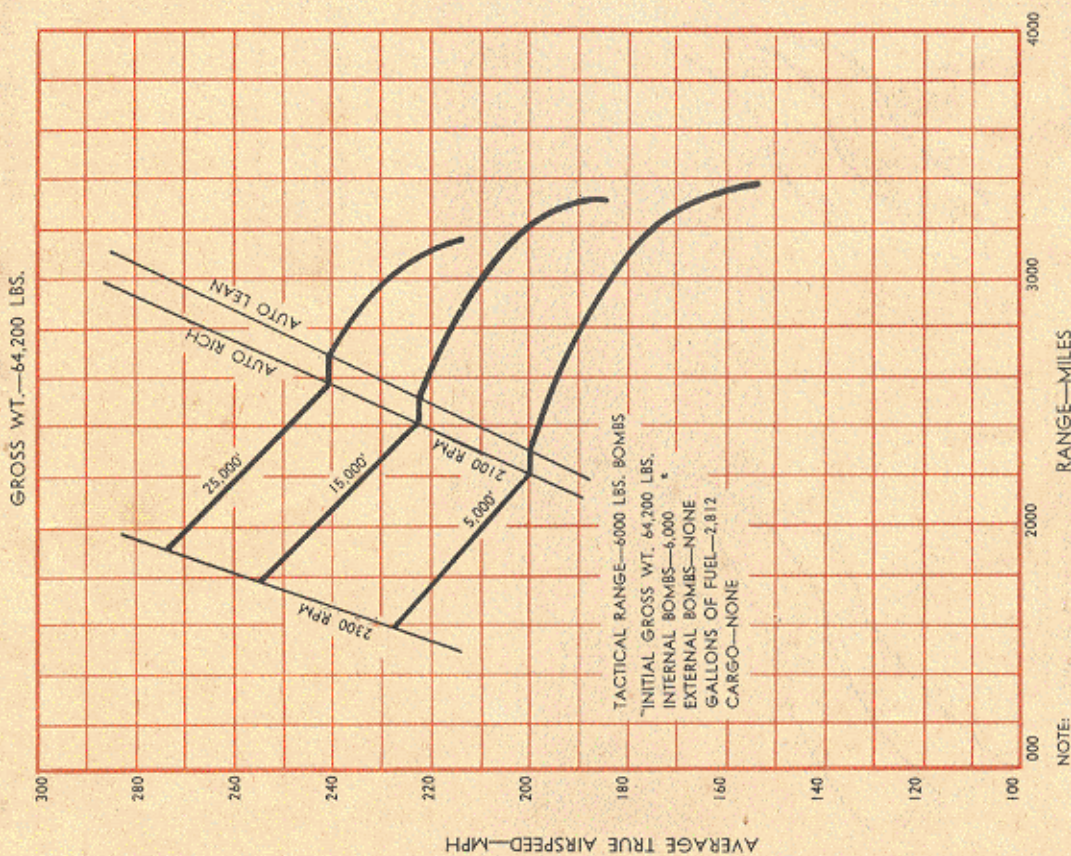
NOTE:

1. THESE RANGE VS. TRUE AIRSPEED CURVES SHOW ABSOLUTE RANGES AND ARE COMPUTED FROM INSTANTANEOUS CRUISING CONDITIONS OF ALTITUDE, POWER, AND FUEL FLOW.
2. NO ALLOWANCE IS MADE FOR WARMUP, TAKEOFF, CLIMB, DESCENT OR HEADWINDS.
3. BOMBS ARE CONSIDERED CARRIED HALF THE DISTANCE OF FLIGHT.

Tactical Range Charts



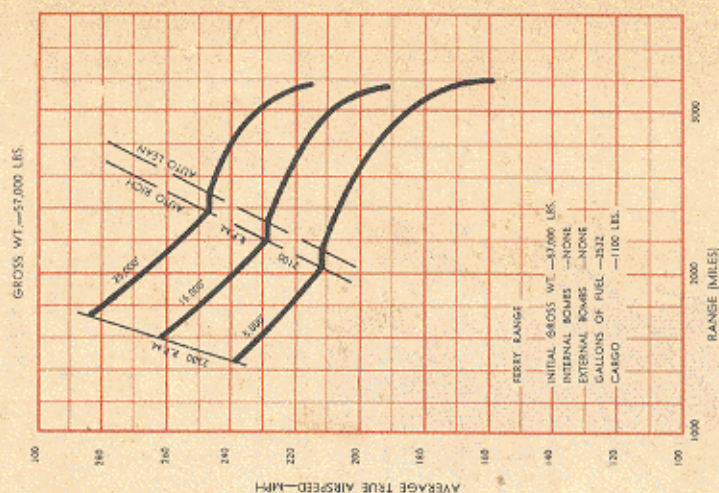
RANGE VS. AVERAGE TRUE AIRSPEED



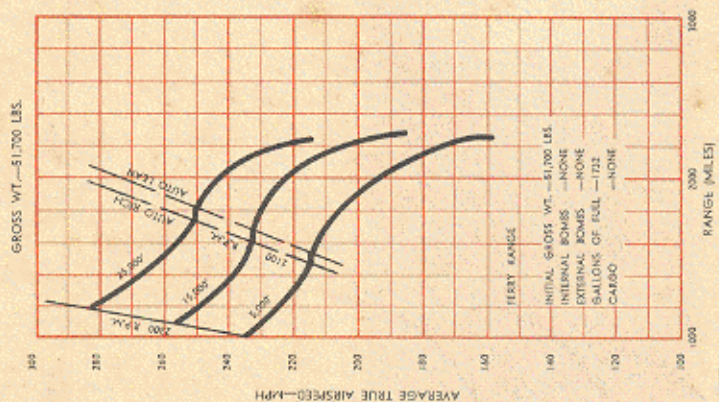
NOTE:

1. THESE RANGE VS. AVERAGE TRUE AIRSPEED CURVES SHOW ABSOLUTE RANGES AND ARE COMPUTED FROM INSTANTANEOUS CRUISING CONDITIONS OF ALTITUDE, POWER, AND FUEL FLOW.
2. NO ALLOWANCE IS MADE FOR WARMUP, TAKEOFF, CLIMB, DESCENT OR HEADWINDS.
3. BOMBS ARE CONSIDERED CARRIED HALF THE DISTANCE OF FLIGHT.

Tactical Range Charts

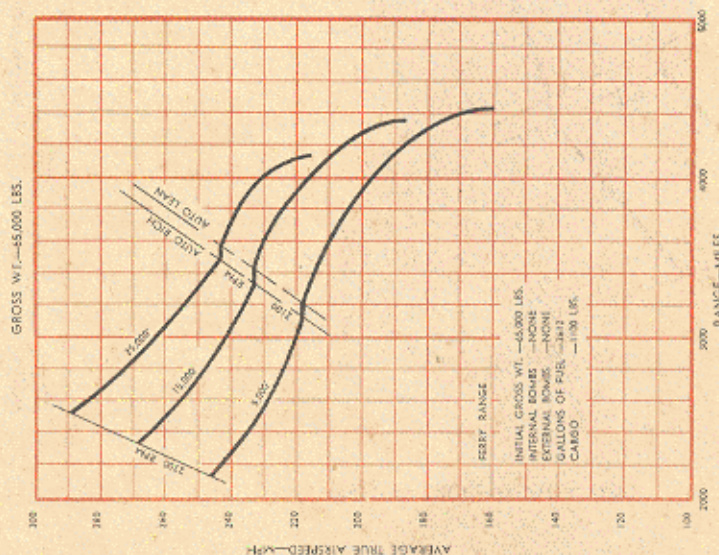


RANGE VS. AVERAGE TRUE AIRSPEED



NOTE:

1. THESE RANGE VS. TRUE AIRSPEED CURVES SHOW ABSOLUTE RANGES AND ARE COMPUTED FROM INSTANTANEOUS CRUISING CONDITIONS OF ALTITUDE, POWER, AND FUEL FLOW.
2. NO ALLOWANCE IS MADE FOR WIND, TIDE, DECENT, OR FLOWING.
3. BOMBS ARE CONSIDERED CARRIED HALF OF THE DISTANCE OF FLIGHT.



Ferry Range Charts