SECTION VII

CRUISE CONTROL

TABLE OF CONTENTS

INTRODUCTION TO CRUISE CONTROL

The graphs and tables in this section present performance information for flight planning at various parameters of power, altitude and temperature. Graphs or tables are included for Cruise Climb, and Cruise at various power settings.

Calculations for flight time, block speed and fuel requirements for a proposed flight are detailed below.

CONDITIONS

Billings Field Elevation . . . . . 3606 ft

Route of Trip:
BIL - V19 - CZI - V247 - DGW - V19E - CYS - V19 - DEN

Weather Conditions IFR for Cruise Altitude of 17,000 feet.

Route Segment	Magnetic Heading	Distance NM	MEA Feet	Wind at 17,000 ft	MAG. VAR.	OAT at 17,000 feet °C	OAT at MEA °C	Altimeter Setting
BIL - SHR	114°	88	8000	010/30	16°E	-10	0	29.56
SHR - CZI	136°	57	9000	350/40	15°E	-10	-4	29.60
CZI - DGW	131°	95	8000	040/45	15°E	-10	0	29.60
DGW - CYS	138° 169°	47 46	8000 8000	040/45 040/45	14°E 14°E	-10 -10	0 0	29.60 29.60
CYS - DEN	166°	81	8000	040/45	14°E	-10	0	29.60

REFERENCE: Enroute Low Altitude Charts L-8 and L-9

Enter the graph for ISA conversion, page 7-4, at the condition indicated:

Enroute:	Pressure Altitude (Approx.)	= 17,000 feet
	OAT	= -10°C
	ISA Condition	= ISA + 9°C

Enter the graph for Cruise Climb, page 7-5, at 3606 and 17,000 feet, 6775 pounds:

Time to Climb	= 20 - 3	= 17 min
Fuel Used to Climb	= 127 - 22	= 105 lbs
Distance Traveled	= 53 - 8	= 45 NM

Enter Cruise Power Settings table for 65% Maximum Continuous Power, page 7-10 at 17,000 feet. Read Cruise data at ISA and ISA + 20°C.

	ISA	ISA + 20oC
Engine Speed - RPM	2500	2500
Manifold Pressure Setting - in. Hg	30.5	31.6
Fuel Flow per Engine - lbs/hr	110	110
Cruise True Airspeed - Knots	205	210

At ISA + 9°C and 17,000 feet:

Engine Speed	= 2500 rpm
Manifold Pressure Setting	= 31.0 in. Hg
Fuel Flow per Engine	= 110 lbs/hr
Cruise True Airspeed	= 207 Knots

Time and fuel used were calculated at 65% Maximum Continuous Power as follows:

$$\text{Time} = \frac{\text{Distance}}{\text{Ground Speed}}$$

Fuel Used = (Time) (Total Fuel Flow)

Results are as follows:

Route	Distance	Estimated Ground Speed	Time At Cruise Altitude	Fuel Used For Cruise
BIL - SHR	43*	220	0 : 12	44
SHR - CZI	57	244	0 : 14	51
CZI - DGW	95	215	0 : 27	99
DGW - CYS	47 46	219 241	0 : 13 0 : 11	48 40
CYS - DEN	81	239	0 : 20	73

***Distance to Climb - subtracted from Segment Distance.**

DETERMINATION OF FLIGHT TIME BLOCK SPEED AND FUEL REQUIREMENTS

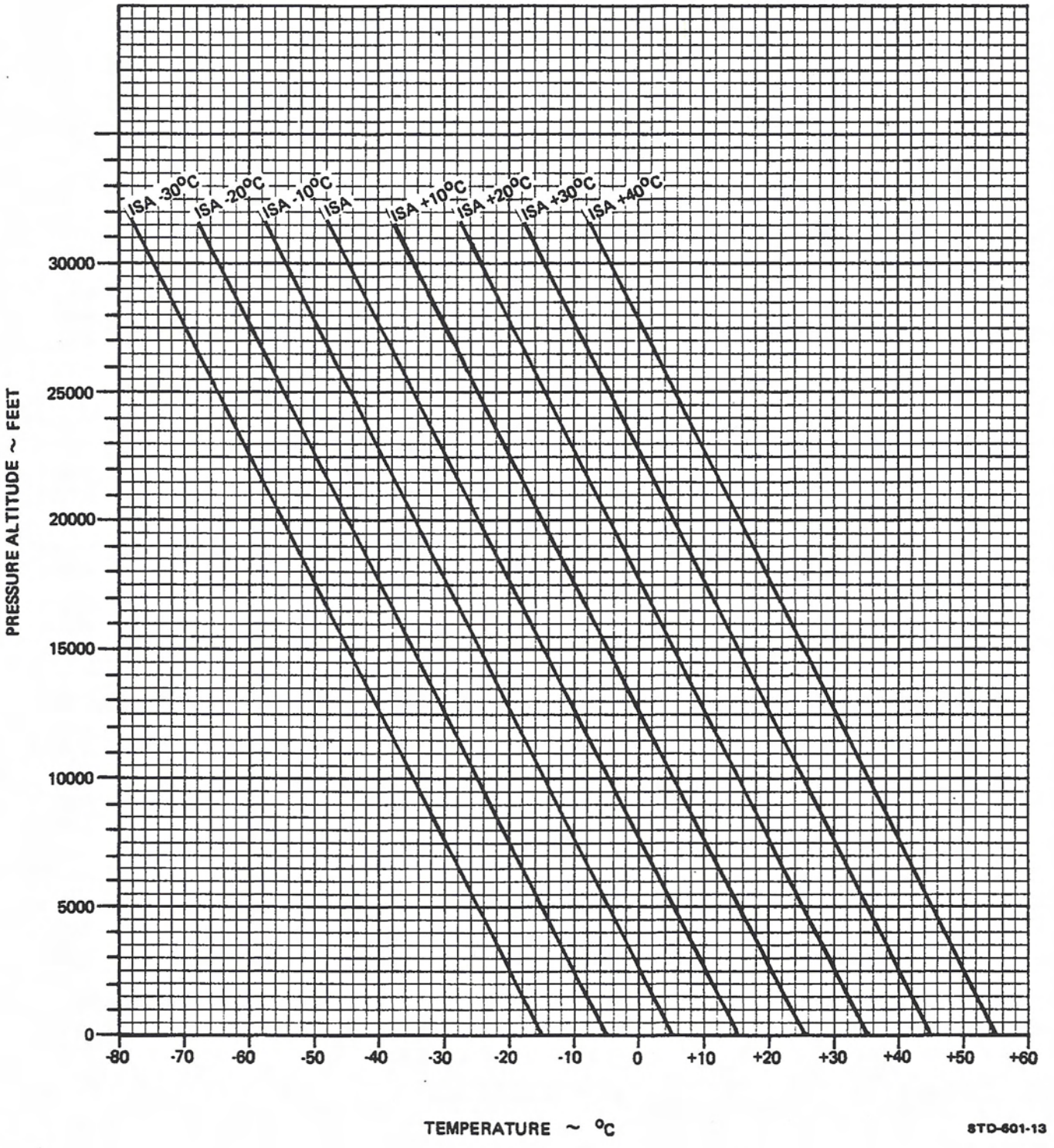
Item	Time Hrs:	:	Mins	Fuel Pounds	Distance Nautical Miles
Start, Runup, Taxi and Take-off acceleration	0	:	00	44	0
Climb	0	:	17	105	45
Cruise	1	:	37	355	369
Total	1	:	54	504	414

Total Flight Time: 1 Hour, 54 Minutes

Block Speed: 414 NM / 1:54 = 218 Knots

ISA CONVERSION

PRESSURE ALTITUDE VS OUTSIDE AIR TEMPERATURE



STD-601-13

CRUISE CLIMB
STANDARD DAY

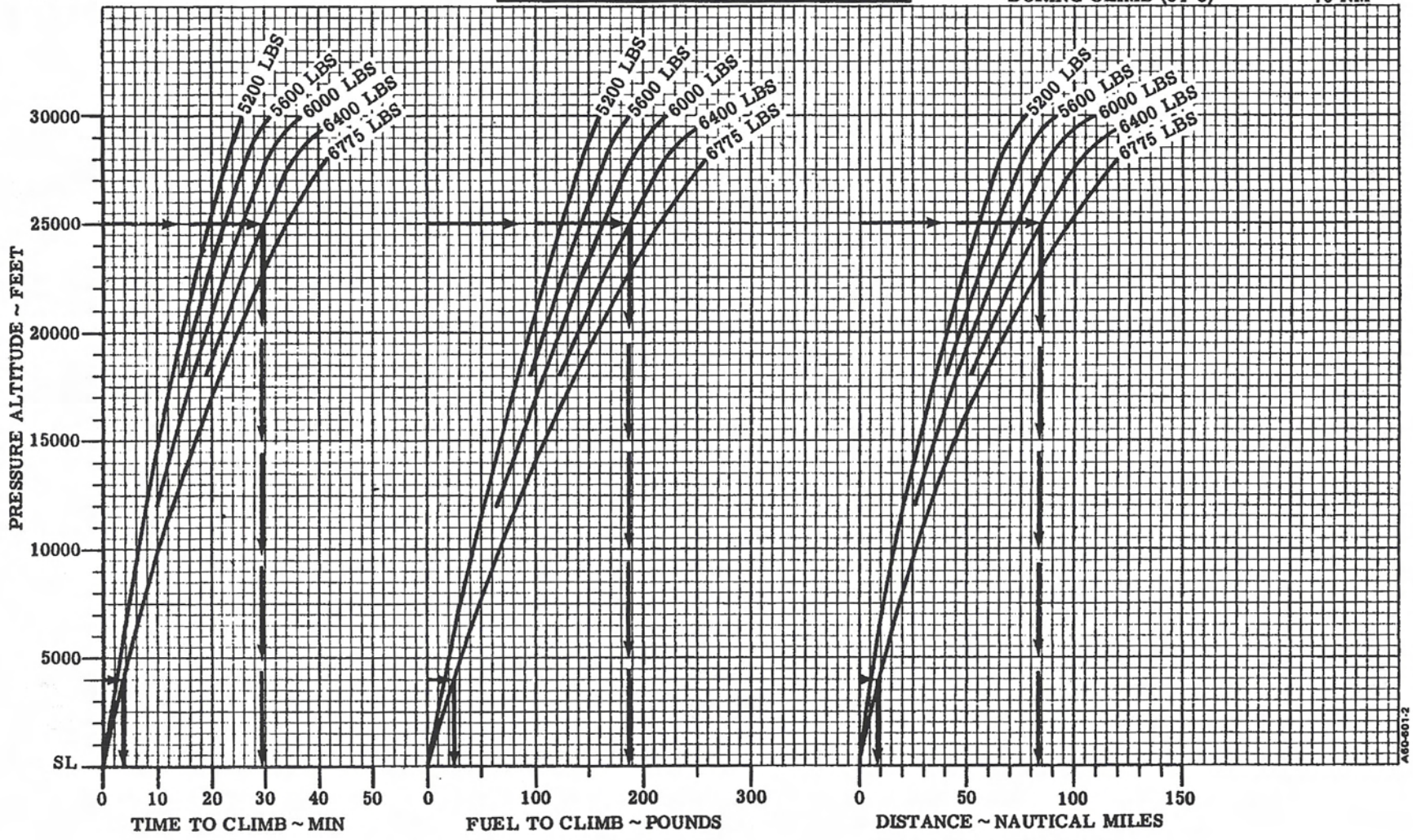
ASSOCIATED CONDITIONS:

ENGINE SPEED	2750 RPM
MANIFOLD PRESSURE	35.5 IN. HG. TO CRITICAL ALTITUDE THEN FULL THROTTLE
FUEL FLOW	194 LB/HR/ENG
CLIMB SPEED	IAS AS TABULATED
FUEL DENSITY	6.0 LB/GAL

ALTITUDE ~ FEET	CLIMB SPEED MPH	CLIMB SPEED KNOTS
SL TO 20000	161	140
20000 TO 25000	150	130
ABOVE 25000	138	120

EXAMPLE:

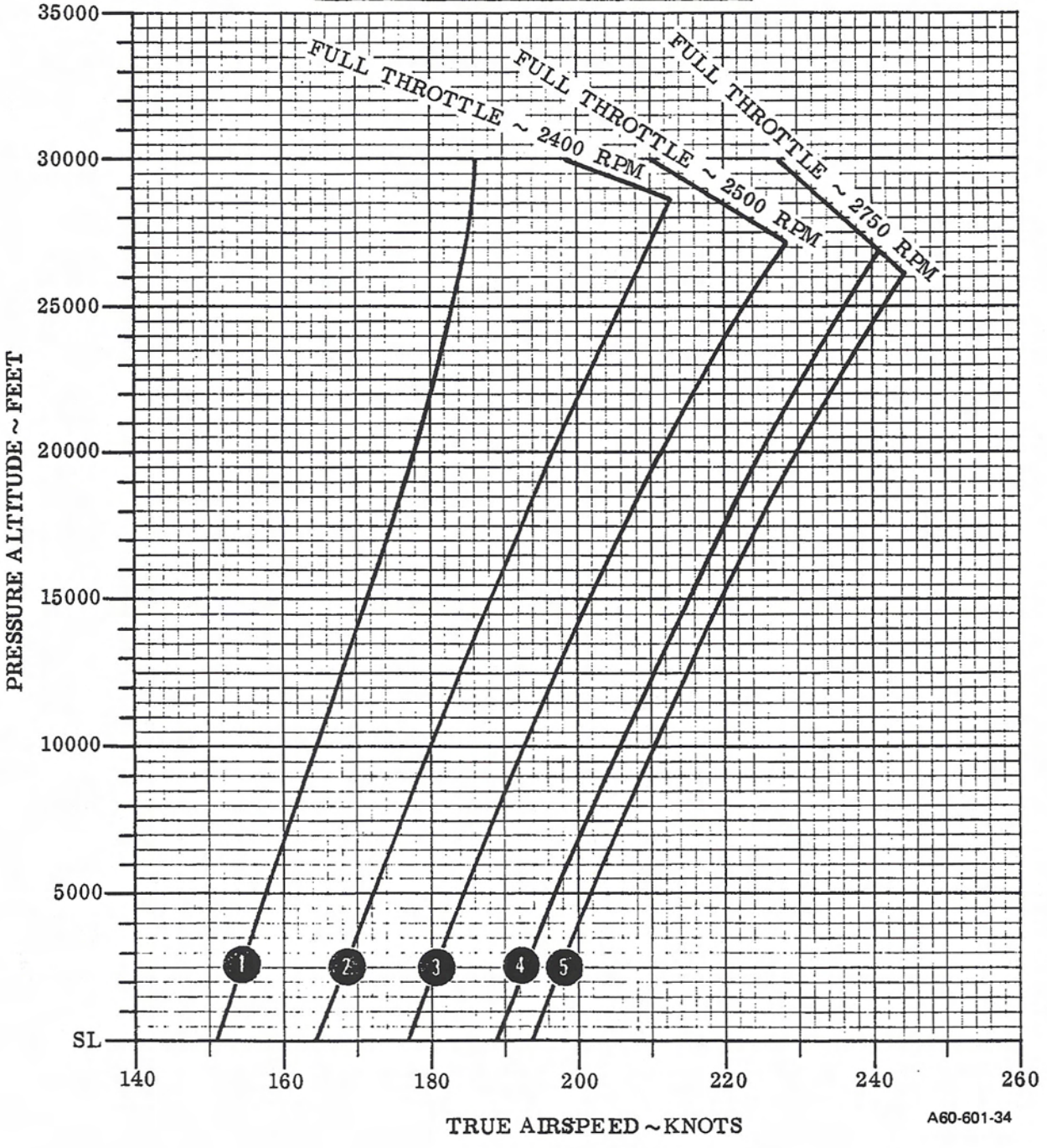
AIRPORT ALTITUDE	4000 FT
CRUISE ALTITUDE	25000 FT
TAKE-OFF WEIGHT	6400 LBS
TIME TO CLIMB (29.5-3.5)	26 MIN
FUEL USED TO CLIMB (186-22)	164 LBS
DISTANCE TRAVELED DURING CLIMB (84-8)	76 NM



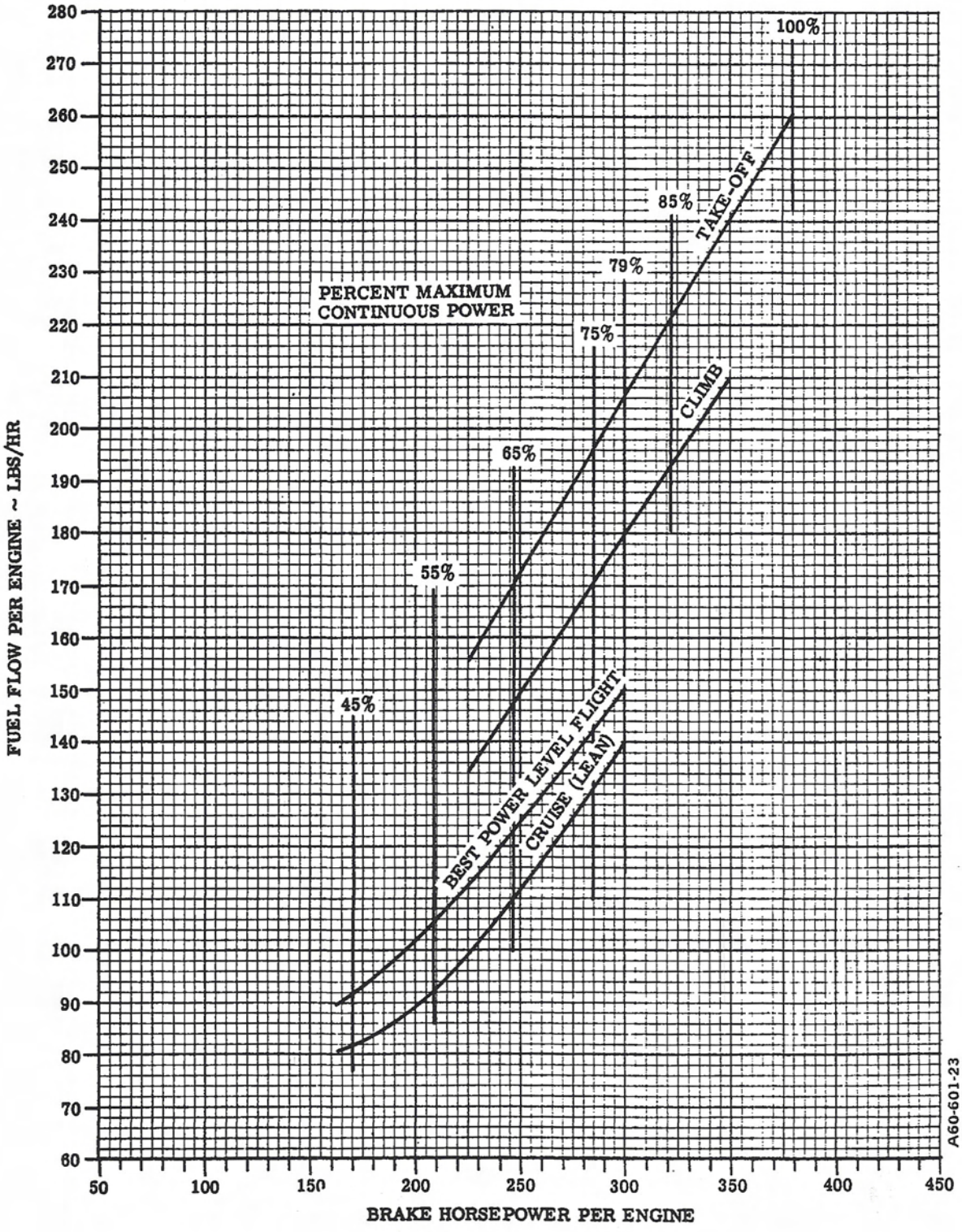
CRUISE OPERATION

STANDARD DAY - 6125 POUNDS

NO.	% POWER	ENGINE SPEED ~RPM	BHP PER ENGINE
1	45	2400	171
2	55	2400	209
3	65	2500	247
4	75	2750	285
5	79	2750	300



FUEL CONSUMPTION vs BRAKE HORSEPOWER



CRUISE POWER SETTINGS

79% MAXIMUM CONTINUOUS POWER (OR FULL THROTTLE)

PRESS ALT.	ISA -36°F (-20°C)							STANDARD DAY (ISA)							ISA +36°F (+20°C)						
	OAT	ENGINE SPEED	MAN. PRESS	FUEL FLOW PER ENGINE		TAS		OAT	ENGINE SPEED	MAN. PRESS	FUEL FLOW PER ENGINE		TAS		OAT	ENGINE SPEED	MAN PRESS	FUEL FLOW PER ENGINE		TAS	
FEET	°C	RPM	IN HG	PPH	GPH	KTS	MPH	°C	RPM	IN HG	PPH	GPH	KTS	MPH	°C	RPM	IN HG	PPH	GPH	KTS	MPH
SL	-5	2750	32.2	142	23.7	190	219	15	2750	33.2	142	23.7	194	223	35	2750	34.0	142	23.7	197	227
2000	-9	2750	32.2	142	23.7	193	222	11	2750	33.2	142	23.7	196	226	31	2750	34.0	142	23.7	200	230
4000	-13	2750	32.2	142	23.7	196	226	7	2750	33.2	142	23.7	200	230	27	2750	34.0	142	23.7	204	235
6000	-17	2750	32.2	142	23.7	199	229	3	2750	33.2	142	23.7	203	234	23	2750	34.0	142	23.7	207	238
8000	-21	2750	32.2	142	23.7	202	233	-1	2750	33.2	142	23.7	206	237	19	2750	34.1	142	23.7	210	242
10000	-25	2750	32.2	142	23.7	205	236	-5	2750	33.2	142	23.7	210	242	15	2750	34.1	142	23.7	214	246
12000	-29	2750	32.2	142	23.7	209	241	-9	2750	33.2	142	23.7	214	246	11	2750	34.2	142	23.7	217	250
14000	-33	2750	32.2	142	23.7	212	244	-13	2750	33.2	142	23.7	217	250	7	2750	34.3	142	23.7	221	254
16000	-37	2750	32.2	142	23.7	217	250	-17	2750	33.2	142	23.7	221	254	3	2750	34.4	142	23.7	226	260
18000	-41	2750	32.2	142	23.7	220	253	-21	2750	33.4	142	23.7	225	259	-1	2750	34.6	142	23.7	231	266
20000	-44	2750	32.4	142	23.7	224	258	-24	2750	33.6	142	23.7	230	265	-4	2750	35.0	142	23.7	235	270
22000	-48	2750	32.8	142	23.7	229	264	-28	2750	34.0	142	23.7	234	269	-8	2750	35.5	142	23.7	239	275
24000	-53	2750	33.6	142	23.7	233	268	-33	2750	34.9	142	23.7	239	275	-13	2750	36.4	142	23.7	244	281
26000	-57	2750	34.6	127	21.2	238	274	-37	2750	36.0	142	23.6	244	281	-17	2750	36.0	134	22.4	245	282
28000	-61	2750	32.5	109	18.1	234	269	-41	2750	32.5	120	20.0	236	272	-21	2750	32.5	115	19.2	237	273
30000	-64	2750	29.3	109	18.1	226	260	-44	2750	29.3	104	17.3	227	261	-24	2750	29.3	100	16.6	226	260

NOTES:
1. FULL THROTTLE MANIFOLD PRESSURE SETTINGS ARE APPROXIMATE.
2. ACTUAL BRAKE HORSEPOWER FOR FULL THROTTLE CONDITIONS (ABOVE CRITICAL ALTITUDE) MAY BE DETERMINED BY ENTERING THE GRAPH OF FUEL FLOW VS. BRAKE HORSEPOWER AT THE APPROPRIATE FUEL FLOW.
3. SHADED AREA REPRESENTS OPERATION WITH FULL THROTTLE.

CRUISE POWER SETTINGS

75% MAXIMUM CONTINUOUS POWER (OR FULL THROTTLE)

PRESS ALT.	ISA -36°F (-20°C)							STANDARD DAY (ISA)							ISA +36°F (+20°C)						
	OAT	ENGINE SPEED	MAN. PRESS	FUEL FLOW PER ENGINE		TAS		OAT	ENGINE SPEED	MAN. PRESS	FUEL FLOW PER ENGINE		TAS		OAT	ENGINE SPEED	MAN PRESS	FUEL FLOW PER ENGINE		TAS	
FEET	°C	RPM	IN HG	PPH	GPH	KTS	MPH	°C	RPM	IN HG	PPH	GPH	KTS	MPH	°C	RPM	IN HG	PPH	GPH	KTS	MPH
SL	-5	2750	30.5	133	22.2	185	213	15	2750	31.9	133	22.2	189	218	35	2750	32.6	133	22.2	192	221
2000	-9	2750	30.5	133	22.2	188	216	11	2750	31.9	133	22.2	192	221	31	2750	32.6	133	22.2	195	224
4000	-13	2750	30.5	133	22.2	191	220	7	2750	31.9	133	22.2	195	224	27	2750	32.6	133	22.2	198	228
6000	-17	2750	30.5	133	22.2	194	223	3	2750	31.9	133	22.2	198	228	23	2750	32.6	133	22.2	202	233
8000	-21	2750	30.5	133	22.2	197	227	-1	2750	31.9	133	22.2	202	233	19	2750	32.7	133	22.2	206	237
10000	-25	2750	30.5	133	22.2	201	231	-5	2750	31.9	133	22.2	205	236	15	2750	32.8	133	22.2	209	241
12000	-29	2750	30.5	133	22.2	204	235	-9	2750	31.9	133	22.2	209	241	11	2750	32.8	133	22.2	213	245
14000	-33	2750	30.5	133	22.2	207	238	-13	2750	31.9	133	22.2	212	244	7	2750	32.9	133	22.2	217	250
16000	-37	2750	30.6	133	22.2	211	243	-17	2750	31.9	133	22.2	217	250	3	2750	32.9	133	22.2	221	254
18000	-41	2750	30.7	133	22.2	215	247	-21	2750	31.9	133	22.2	221	254	-1	2750	33.1	133	22.2	225	259
20000	-44	2750	30.8	133	22.2	219	252	-24	2750	31.9	133	22.2	225	259	-4	2750	33.4	133	22.2	230	265
22000	-48	2750	31.1	133	22.2	224	258	-28	2750	32.4	133	22.2	229	264	-8	2750	33.7	133	22.2	234	269
24000	-53	2750	31.8	133	22.2	228	262	-33	2750	33.1	133	22.2	234	269	-13	2750	34.5	133	22.2	239	275
26000	-57	2750	32.5	133	22.2	232	267	-37	2750	34.0	133	22.2	239	275	-17	2750	35.7	133	22.2	24	281
28000	-61	2750	32.5	127	21.2	234	269	-41	2750	34.0	133	22.2	240	276	-21	2750	32.5	115	19.2	237	273
30000	-64	2750	29.3	109	18.1	226	260	-44	2750	29.3	104	17.3	227	261	-24	2750	29.3	100	16.6	226	260

NOTES:
1. FULL THROTTLE MANIFOLD PRESSURE SETTINGS ARE APPROXIMATE.
2. ACTUAL BRAKE HORSEPOWER FOR FULL THROTTLE CONDITIONS (ABOVE CRITICAL ALTITUDE) MAY BE DETERMINED BY ENTERING THE GRAPH OF FUEL FLOW VS. BRAKE HORSEPOWER AT THE APPROPRIATE FUEL FLOW.
3. SHADED AREA REPRESENTS OPERATION WITH FULL THROTTLE.

CRUISE POWER SETTINGS

65% MAXIMUM CONTINUOUS POWER (OR FULL THROTTLE)

	ISA -36°F (-20°C)							STANDARD DAY (ISA)							ISA +36°F (+20°C)						
PRESS ALT.	OAT	ENGINE SPEED	MAN. PRESS	FUEL FLOW PER ENGINE		TAS		OAT	ENGINE SPEED	MAN. PRESS	FUEL FLOW PER ENGINE		TAS		OAT	ENGINE SPEED	MAN PRESS	FUEL FLOW PER ENGINE		TAS	
FEET	°C	RPM	IN HG	PPH	GPH	KTS	MPH	°C	RPM	IN HG	PPH	GPH	KTS	MPH	°C	RPM	IN HG	PPH	GPH	KTS	MPH
SL	-5	2500	28.9	112	18.6	173	199	15	2500	29.8	112	18.6	177	204	35	2500	30.6	112	18.6	180	207
2000	-9	2500	28.9	112	18.6	176	203	11	2500	29.8	112	18.6	180	207	31	2500	20.7	112	18.6	183	211
4000	-13	2500	29.0	112	18.6	179	206	7	2500	29.8	112	18.6	183	211	27	2500	30.9	112	18.6	186	214
6000	-17	2500	29.0	112	18.6	182	209	3	2500	29.9	112	18.6	186	214	23	2500	31.0	112	18.6	190	219
8000	-21	2500	29.2	112	18.6	185	213	-1	2500	30.0	112	18.6	189	218	19	2500	31.1	112	18.6	193	222
10000	-25	2500	29.2	112	18.6	188	216	-5	2500	30.2	112	18.6	193	222	15	2500	31.2	112	18.6	197	227
12000	-29	2500	29.2	112	18.6	192	221	-9	2500	30.3	112	18.6	196	226	11	2500	31.4	112	18.6	200	230
14000	-33	2500	29.2	112	18.6	195	224	-13	2500	30.4	112	18.6	200	230	7	2500	31.5	112	18.6	204	235
16000	-37	2500	29.3	112	18.6	199	229	-17	2500	30.5	112	18.6	204	235	3	2500	31.6	112	18.6	208	239
18000	-41	2500	29.3	112	18.6	202	233	-21	2500	30.6	112	18.6	207	238	-1	2500	31.7	112	18.6	212	244
20000	-44	2500	29.4	112	18.6	206	237	-24	2500	30.6	112	18.6	211	243	-4	2500	31.8	112	18.6	216	249
22000	-48	2500	29.5	112	18.6	211	243	-28	2500	30.8	112	18.6	216	249	-8	2500	32.0	112	18.6	221	254
24000	-53	2500	29.8	112	18.6	215	247	-33	2500	31.1	112	18.6	220	253	-13	2500	32.0	111	18.5	224	258
26000	-57	2500	30.0	112	18.6	219	252	-37	2500	31.3	112	18.6	225	259	-17	2500	32.0	109	18.2	227	261
28000	-61	2500	29.9	110	18.3	222	256	-41	2500	29.9	105	17.5	223	257	-21	2500	29.9	100	16.7	223	257
30000	-64	2500	26.4	94	15.7	210	242	-44	2500	26.4	91	15.1	210	242	-24	2500	26.4	88	14.7	206	237

NOTES:
1. FULL THROTTLE MANIFOLD PRESSURE SETTINGS ARE APPROXIMATE.
2. ACTUAL BRAKE HORSEPOWER FOR FULL THROTTLE CONDITIONS (ABOVE CRITICAL ALTITUDE) MAY BE DETERMINED BY ENTERING THE GRAPH OF FUEL FLOW VS. BRAKE HORSEPOWER AT THE APPROPRIATE FUEL FLOW.
3. SHADED AREA REPRESENTS OPERATION WITH FULL THROTTLE.

CRUISE POWER SETTINGS

55% MAXIMUM CONTINUOUS POWER (OR FULL THROTTLE)

PRESS ALT.	ISA -36°F (-20°C)							STANDARD DAY (ISA)							ISA +36°F (+20°C)						
	OAT	ENGINE SPEED	MAN. PRESS	FUEL FLOW PER ENGINE		TAS		OAT	ENGINE SPEED	MAN. PRESS	FUEL FLOW PER ENGINE		TAS		OAT	ENGINE SPEED	MAN PRESS	FUEL FLOW PER ENGINE		TAS	
FEET	°C	RPM	IN HG	PPH	GPH	KTS	MPH	°C	RPM	IN HG	PPH	GPH	KTS	MPH	°C	RPM	IN HG	PPH	GPH	KTS	MPH
SL	-5	2400	26.8	94	15.6	161	185	15	2400	27.6	94	15.6	165	190	35	2400	28.3	94	15.6	168	193
2000	-9	2400	26.8	94	15.6	164	189	11	2400	27.6	94	15.6	167	192	31	2400	28.3	94	15.6	171	197
4000	-13	2400	26.8	94	15.6	167	192	7	2400	27.6	94	15.6	170	196	27	2400	28.3	94	15.6	174	200
6000	-17	2400	26.7	94	15.6	169	195	3	2400	27.6	94	15.6	173	199	23	2400	28.3	94	15.6	177	204
8000	-21	2400	26.7	94	15.6	172	198	-1	2400	27.6	94	15.6	177	204	19	2400	28.3	94	15.6	180	207
10000	-25	2400	26.7	94	15.6	176	203	-5	2400	27.6	94	15.6	180	207	15	2400	28.3	94	15.6	183	211
12000	-29	2400	26.7	94	15.6	179	206	-9	2400	27.6	94	15.6	183	211	11	2400	28.3	94	15.6	187	215
14000	-33	2400	26.7	94	15.6	182	209	-13	2400	27.6	94	15.6	187	215	7	2400	28.3	94	15.6	190	219
16000	-37	2400	26.6	94	15.6	185	213	-17	2400	27.6	94	15.6	190	219	3	2400	28.3	94	15.6	194	223
18000	-41	2400	26.6	94	15.6	189	218	-21	2400	27.6	94	15.6	193	222	-1	2400	28.3	94	15.6	197	227
20000	-44	2400	26.6	94	15.6	192	221	-24	2400	27.6	94	15.6	197	227	-4	2400	28.3	94	15.6	201	231
22000	-48	2400	26.6	94	15.6	195	224	-28	2400	27.6	94	15.6	200	230	-8	2400	28.3	94	15.6	204	235
24000	-53	2400	26.6	94	15.6	199	229	-33	2400	27.6	94	15.6	204	235	-13	2400	28.5	94	15.6	208	239
26000	-57	2400	26.7	94	15.6	203	234	-37	2400	27.8	94	15.6	208	239	-17	2400	28.9	94	15.6	212	244
28000	-61	2400	27.3	94	15.6	207	238	-41	2400	28.6	94	15.6	211	243	-21	2400	29.7	94	15.6	216	249
30000	-64	2400	26.0	88	14.7	201	231	-44	2400	26.0	86	14.4	199	229	-24	2400	26.0	85	14.1	193	222

NOTES:
1. FULL THROTTLE MANIFOLD PRESSURE SETTINGS ARE APPROXIMATE.
2. ACTUAL BRAKE HORSEPOWER FOR FULL THROTTLE CONDITIONS (ABOVE CRITICAL ALTITUDE) MAY BE DETERMINED BY ENTERING THE GRAPH OF FUEL FLOW VS. BRAKE HORSEPOWER AT THE APPROPRIATE FUEL FLOW.
3. SHADED AREA REPRESENTS OPERATION WITH FULL THROTTLE.

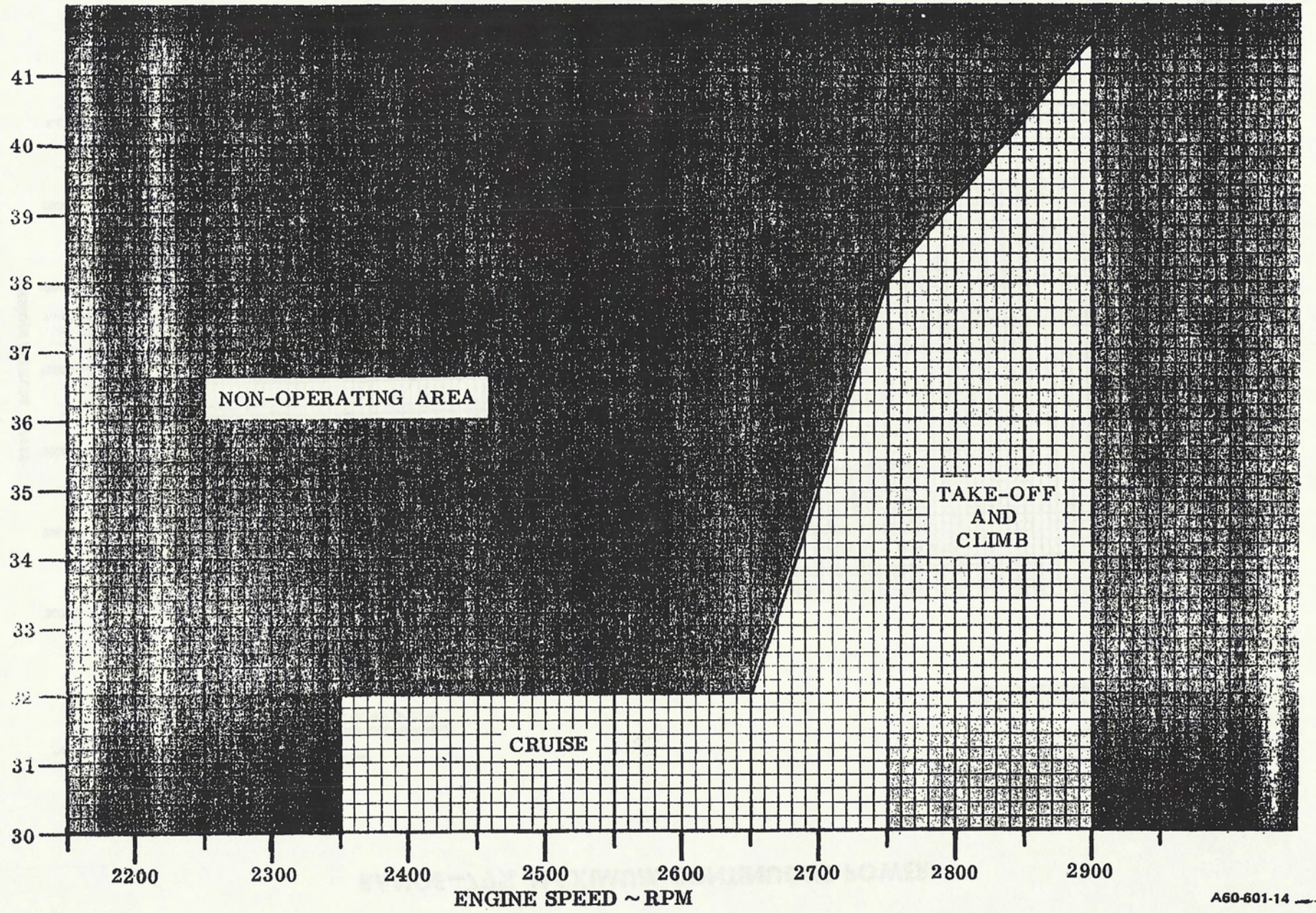
CRUISE POWER SETTINGS

45% MAXIMUM CONTINUOUS POWER

PRESS ALT.	ISA -36°F (-20°C)							STANDARD DAY (ISA)							ISA +36°F (+20°C)						
	OAT	ENGINE SPEED	MAN. PRESS	FUEL FLOW PER ENGINE		TAS		OAT	ENGINE SPEED	MAN. PRESS	FUEL FLOW PER ENGINE		TAS		OAT	ENGINE SPEED	MAN PRESS	FUEL FLOW PER ENGINE		TAS	
FEET	°C	RPM	IN HG	PPH	GPH	KTS	MPH	°C	RPM	IN HG	PPH	GPH	KTS	MPH	°C	RPM	IN HG	PPH	GPH	KTS	MPH
SL	-5	2400	22.6	83	13.9	148	170	15	2400	23.4	83	13.9	151	174	35	2400	24.0	83	13.9	154	177
2000	-9	2400	22.6	83	13.9	150	173	11	2400	23.4	83	13.9	154	177	31	2400	24.0	83	13.9	157	181
4000	-13	2400	22.6	83	13.9	153	176	7	2400	23.4	83	13.9	156	180	27	2400	24.0	83	13.9	159	183
6000	-17	2400	22.6	83	13.9	155	178	3	2400	23.4	83	13.9	159	183	23	2400	24.0	83	13.9	162	186
8000	-21	2400	22.6	83	13.9	158	182	-1	2400	23.4	83	13.9	161	185	19	2400	24.0	83	13.9	165	190
10000	-25	2400	22.6	83	13.9	160	184	-5	2400	23.4	83	13.9	164	189	15	2400	24.0	83	13.9	168	193
12000	-29	2400	22.6	83	13.9	163	188	-9	2400	23.4	83	13.9	167	192	11	2400	24.0	83	13.9	170	196
14000	-33	2400	22.6	83	13.9	166	191	-13	2400	23.4	83	13.9	170	196	7	2400	24.0	83	13.9	173	199
16000	-37	2400	22.6	83	13.9	169	195	-17	2400	23.4	83	13.9	173	199	3	2400	24.0	83	13.9	176	203
18000	-41	2400	22.6	83	13.9	172	198	-21	2400	23.4	83	13.9	176	203	-1	2400	24.0	83	13.9	178	205
20000	-44	2400	22.6	83	13.9	175	201	-24	2400	23.4	83	13.9	178	205	-4	2400	24.0	83	13.9	181	208
22000	-48	2400	22.6	83	13.9	178	205	-28	2400	23.4	83	13.9	180	207	-8	2400	24.0	83	13.9	182	209
24000	-53	2400	22.5	83	13.9	180	207	-33	2400	23.4	83	13.9	182	209	-13	2400	24.0	83	13.9	183	211
26000	-57	2400	22.5	83	13.9	181	208	-37	2400	23.4	83	13.9	184	212	-17	2400	24.1	83	13.9	186	214
28000	-61	2400	22.5	83	13.9	183	211	-41	2400	23.4	83	13.9	186	214	-21	2400	24.4	83	13.9	187	215
30000	-64	2400	22.5	83	13.9	185	213	-44	2400	23.4	83	13.9	186	214	-24	2400	24.8	83	13.9	185	213

NOTES:
1. FULL THROTTLE MANIFOLD PRESSURE SETTINGS ARE APPROXIMATE.
2. ACTUAL BRAKE HORSEPOWER FOR FULL THROTTLE CONDITIONS (ABOVE CRITICAL ALTITUDE) MAY BE DETERMINED BY ENTERING THE GRAPH OF FUEL FLOW VS. BRAKE HORSEPOWER AT THE APPROPRIATE FUEL FLOW.

LIMITING MANIFOLD PRESSURE
FOR CONTINUOUS OPERATION



A60-601-14

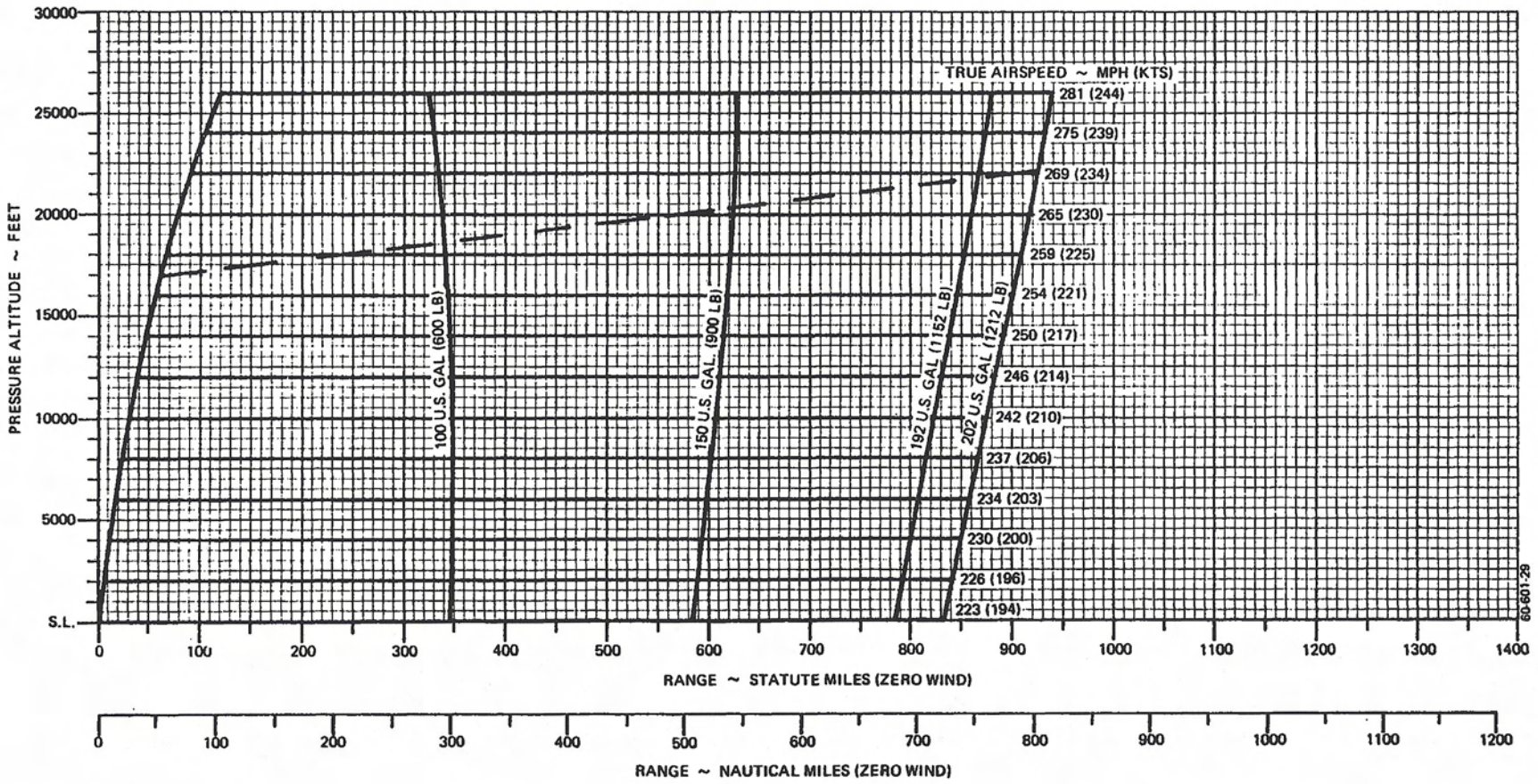
RANGE—79% MAXIMUM CONTINUOUS POWER

ASSOCIATED CONDITIONS:

TEMPERATURE	STANDARD DAY (ISA)
TAKE-OFF WEIGHT	6775 POUNDS
FUEL FLOW	140 LB/HR/ENG (23.3 GAL/HR/ENG)
CLIMB POWER	REFER TO CRUISE CLIMB GRAPH
FUEL DENSITY	6.0LB/GAL

NOTE: RANGE INCLUDES START, TAXI, TAKE-OFF, CLIMB, AND 45 MINUTES RESERVE AT 45% MAXIMUM CONTINUOUS POWER

— — ALTITUDE FOR SINGLE ENGINE RATE-OF-CLIMB OF 50 FT/MIN



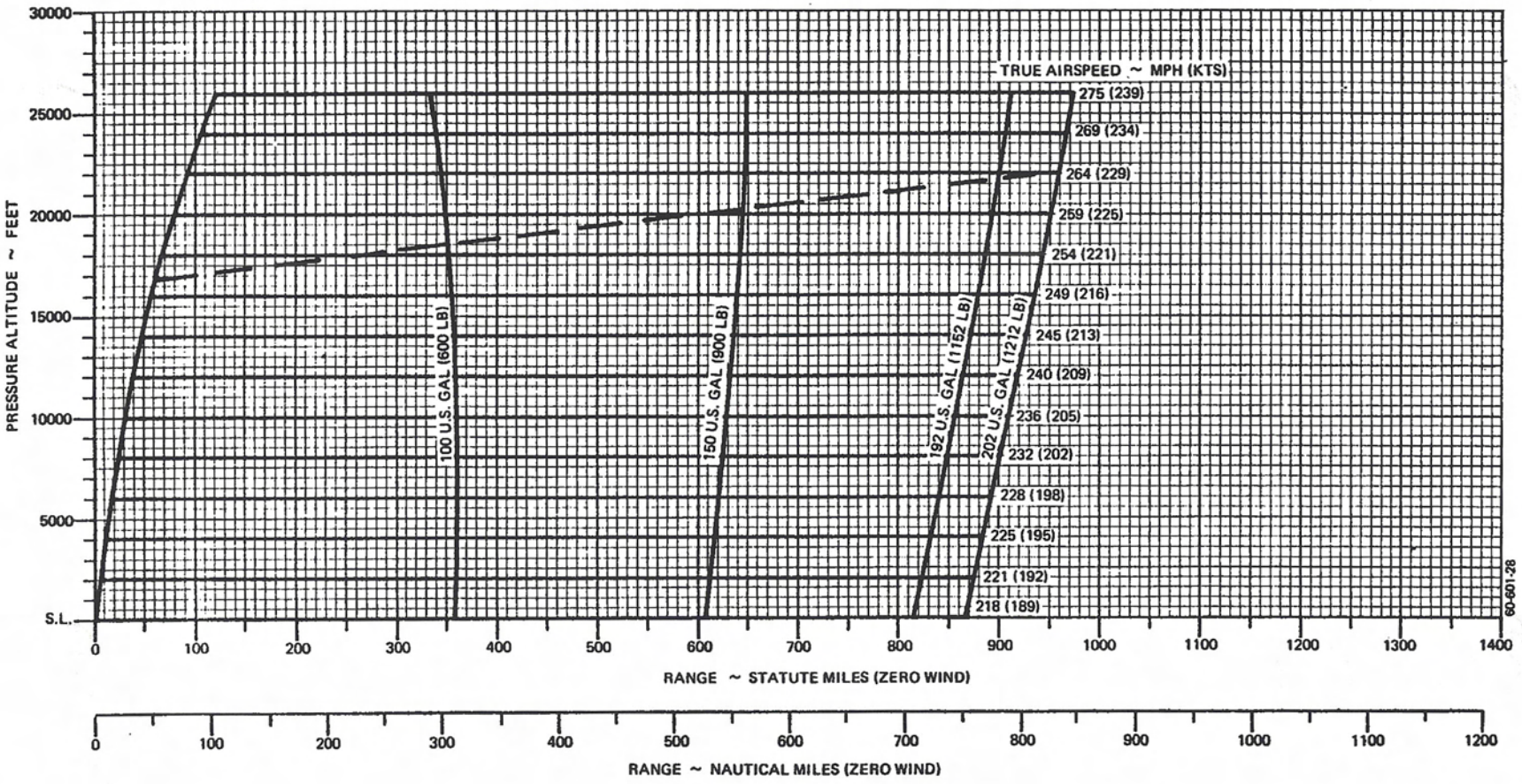
RANGE—75% MAXIMUM CONTINUOUS POWER

ASSOCIATED CONDITIONS:

TEMPERATURE	STANDARD DAY (ISA)
TAKE-OFF WEIGHT	6775 POUNDS
FUEL FLOW	131 LB/HR/ENG (21.9 GAL/HR/ENG)
CLIMB POWER	REFER TO CRUISE CLIMB GRAPH
FUEL DENSITY	6.0LB/GAL

NOTE: RANGE INCLUDES START, TAXI, TAKE-OFF, CLIMB, AND 45 MINUTES RESERVE AT 45% MAXIMUM CONTINUOUS POWER

— — ALTITUDE FOR SINGLE ENGINE RATE-OF-CLIMB OF 50 FT/MIN



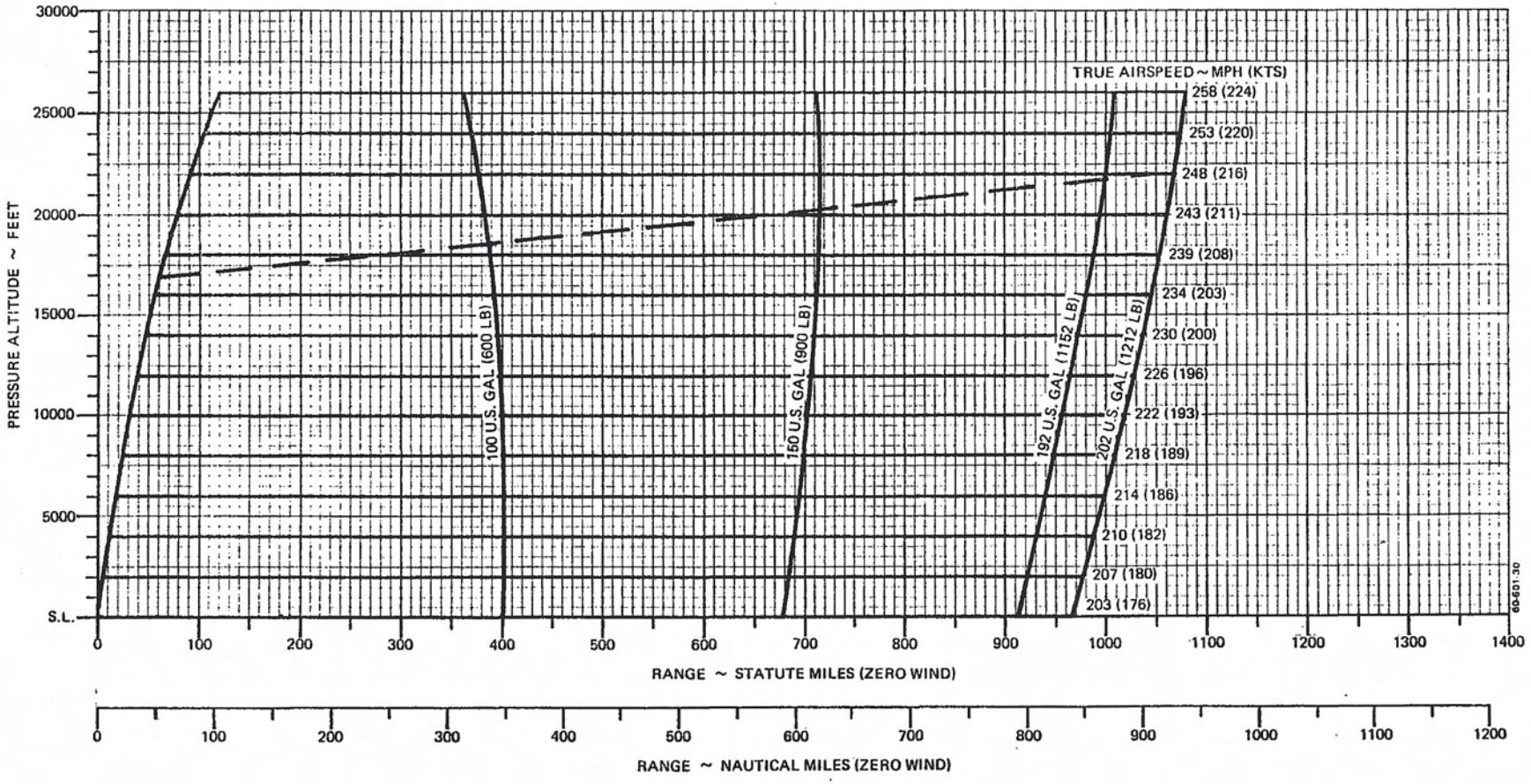
RANGE—65% MAXIMUM CONTINUOUS POWER

ASSOCIATED CONDITIONS:

TEMPERATURE	STANDARD DAY (ISA)
TAKE-OFF WEIGHT	6775 POUNDS
FUEL FLOW	110 LB/HR/ENG (18.3 GAL/HR/ENG)
CLIMB POWER	REFER TO CRUISE CLIMB GRAPH
FUEL DENSITY	6.0 LB/GAL

NOTE: RANGE INCLUDES START, TAXI, TAKE-OFF, CLIMB, AND 45 MINUTES RESERVE AT 45% MAXIMUM CONTINUOUS POWER

— — ALTITUDE FOR SINGLE ENGINE RATE-OF-CLIMB OF 50 FT/MIN



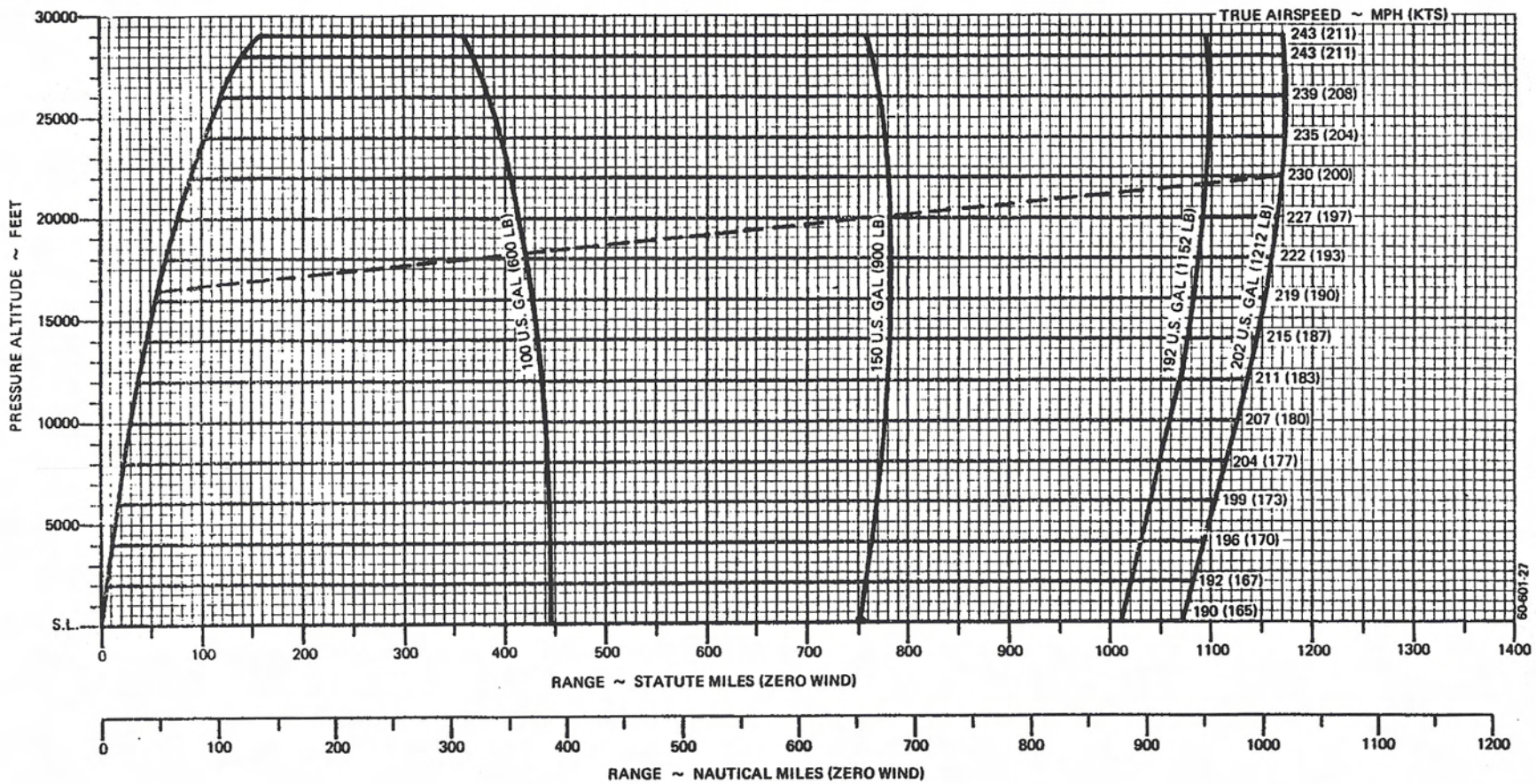
RANGE—55% MAXIMUM CONTINUOUS POWER

ASSOCIATED CONDITIONS:

TEMPERATURE	STANDARD DAY (ISA)
TAKE-OFF WEIGHT	6775 POUNDS
FUEL FLOW	92 LB/HR/ENG (15.3 GAL/HR/ENG)
CLIMB POWER	REFER TO CRUISE CLIMB GRAPH
FUEL DENSITY	6.0 LB/GAL

NOTE: RANGE INCLUDES START, TAXI, TAKE-OFF, CLIMB, AND 45 MINUTES RESERVE AT 45% MAXIMUM CONTINUOUS POWER

— — ALTITUDE FOR SINGLE ENGINE RATE-OF-CLIMB OF 50 FT/MIN



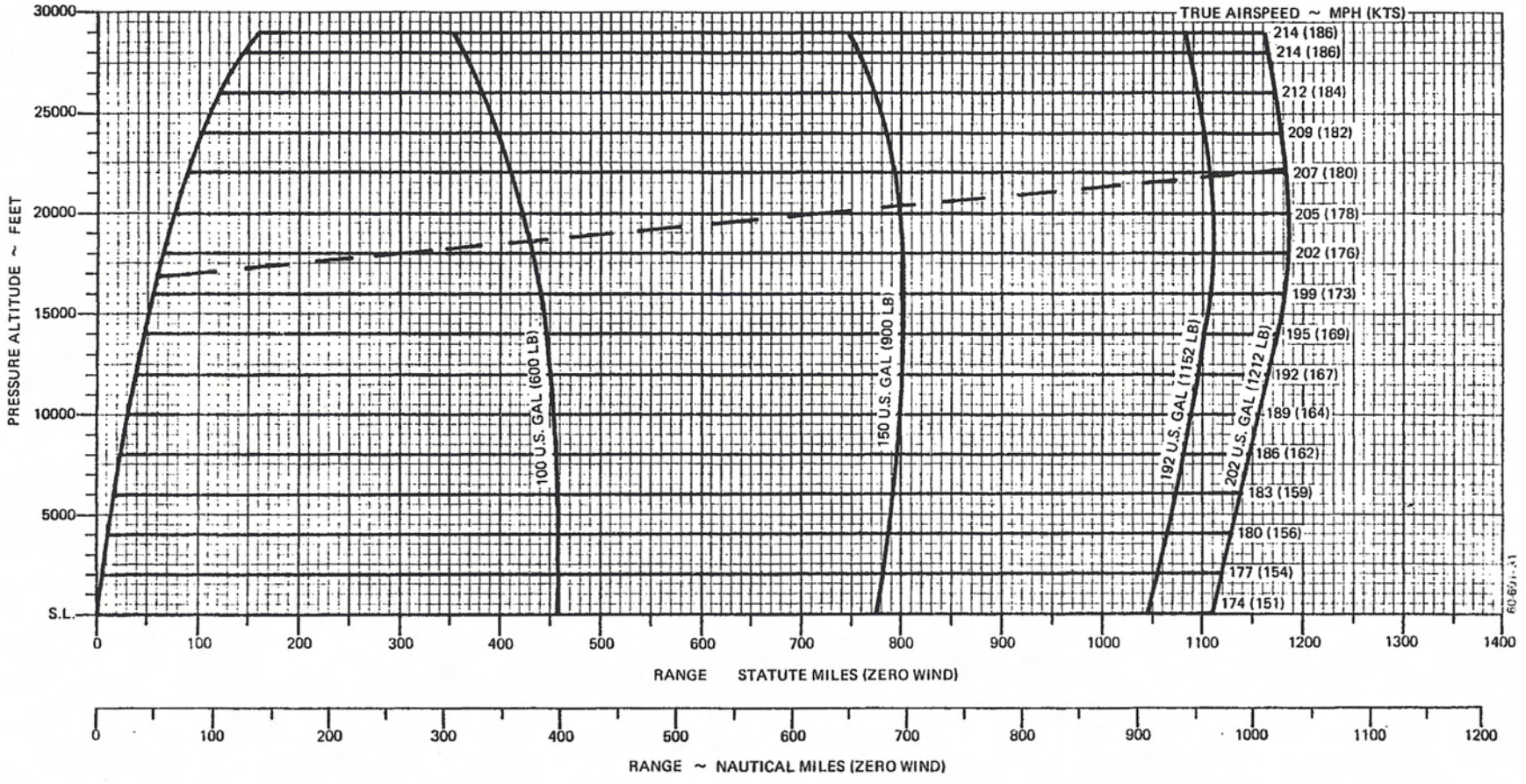
RANGE—45% MAXIMUM CONTINUOUS POWER

ASSOCIATED CONDITIONS:

TEMPERATURE	STANDARD DAY (ISA)
TAKE-OFF WEIGHT	6775 POUNDS
FUEL FLOW	82 LB/HR/ENG (13.7 GAL/HR/ENG)
CLIMB POWER	REFER TO CRUISE CLIMB GRAPH
FUEL DENSITY	6.0 LB/GAL

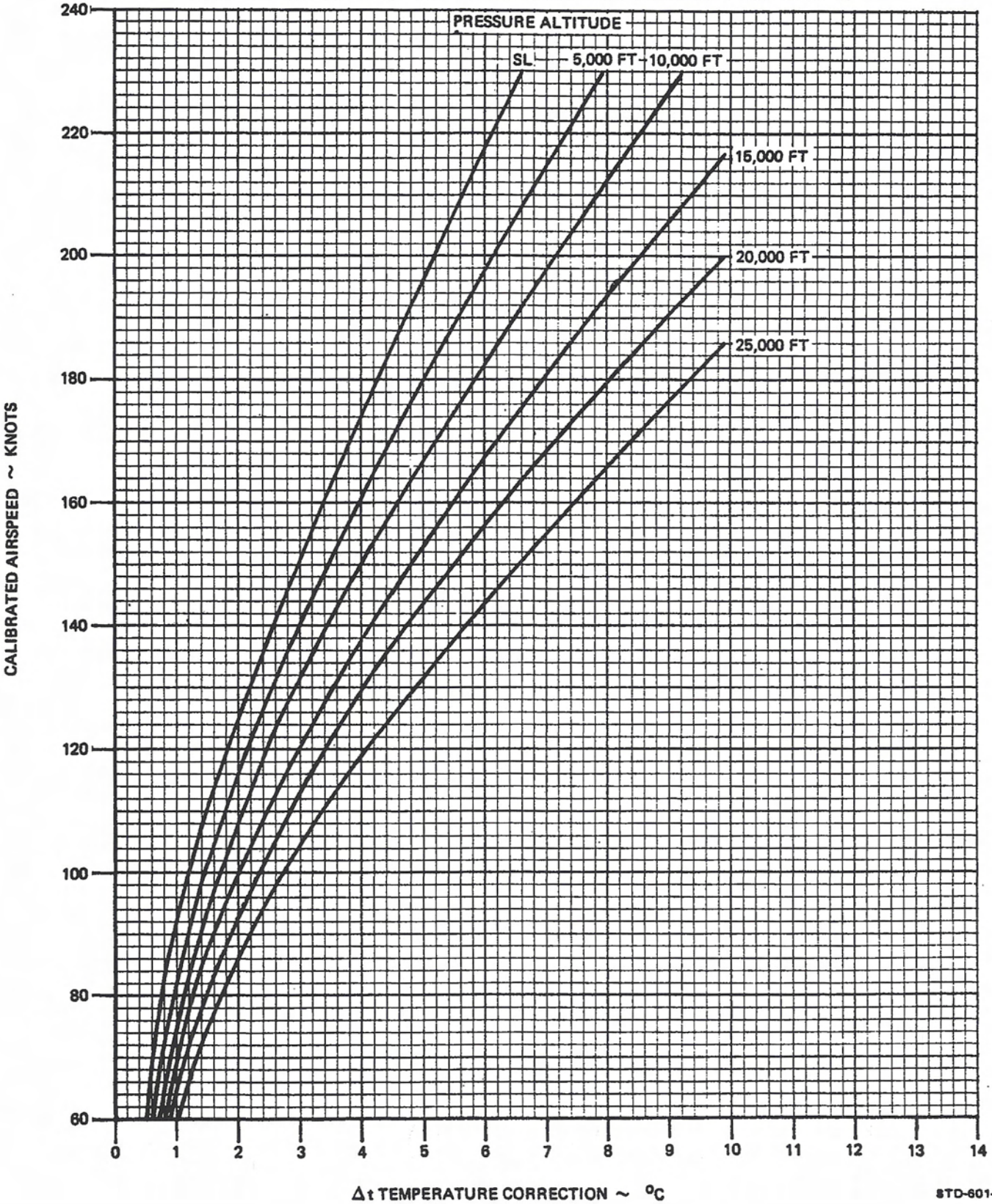
NOTE: RANGE INCLUDES START, TAXI, TAKE-OFF, CLIMB AND 45 MINUTES RESERVE AT 45% MAXIMUM CONTINUOUS POWER

— — ALTITUDE FOR SINGLE ENGINE RATE-OF-CLIMB OF 50 FT/MIN



OUTSIDE AIR TEMPERATURE CORRECTION

SUBTRACT Δt FROM INDICATED OAT TO OBTAIN TRUE OAT
(INDICATED OAT IS RAM AIR TEMPERATURE ASSUMING A RECOVERY FACTOR OF 1.)



STD-601-12