

Beechcraft Duke B60

Pilot's Operating Handbook

CHARTS

NORMAL TAKE-OFF

ASSOCIATED CONDITIONS:

POWER TAKEOFF POWER SET
PRIOR TO BRAKE RELEASE

FLAPS UP

COWL FLAPS OPEN

RUNWAY PAVED, LEVEL, DRY SURFACE

TAKE-OFF SPEED IAS AS TABULATED

NOTE: GROUND ROLL IS APPROXIMATELY
79% OF TOTAL TAKE-OFF DISTANCE
OVER 50 FT OBSTACLE.

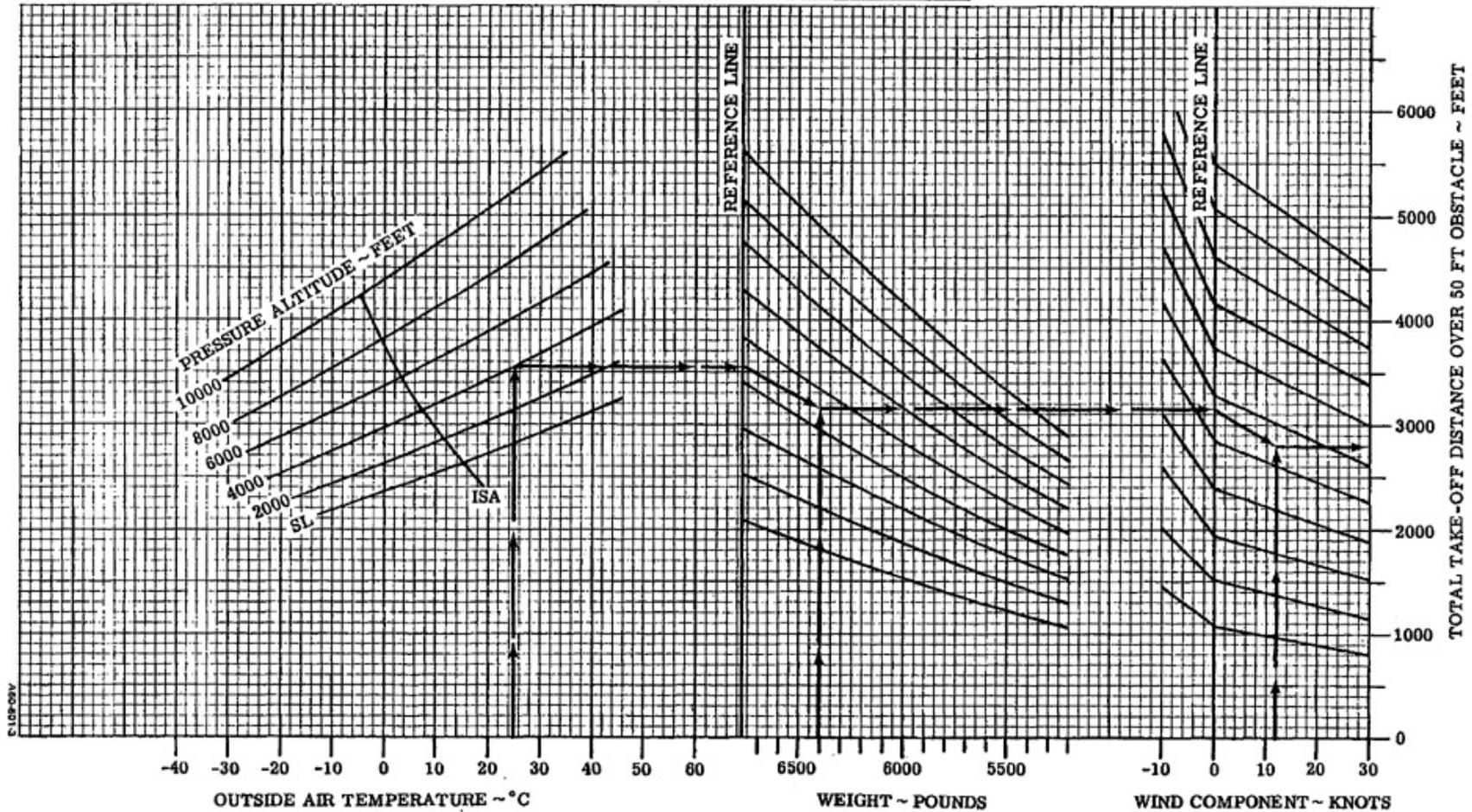
WEIGHT POUNDS	TAKE-OFF SPEED (ASSUMES ZERO INST. ERROR)			
	LIFT-OFF		50 FT	
	MPH	KTS	MPH	KTS
6775	108	94	108	94
6400	107	93	107	93
6000	106	92	106	92
5600	104	90	104	90
5200	102	89	102	89

EXAMPLE:

OAT 25°C
PRESSURE ALTITUDE 4000 FT
TAKE-OFF WEIGHT 6400 LBS
HEAD WIND COMPONENT 12 KNOTS

TOTAL DISTANCE 2800 FT
GROUND ROLL (79% OF 2800) 2212
TAKE-OFF SPEED

LIFT-OFF 93 KIAS
50 FT 93 KIAS



TWO-ENGINE CLIMB

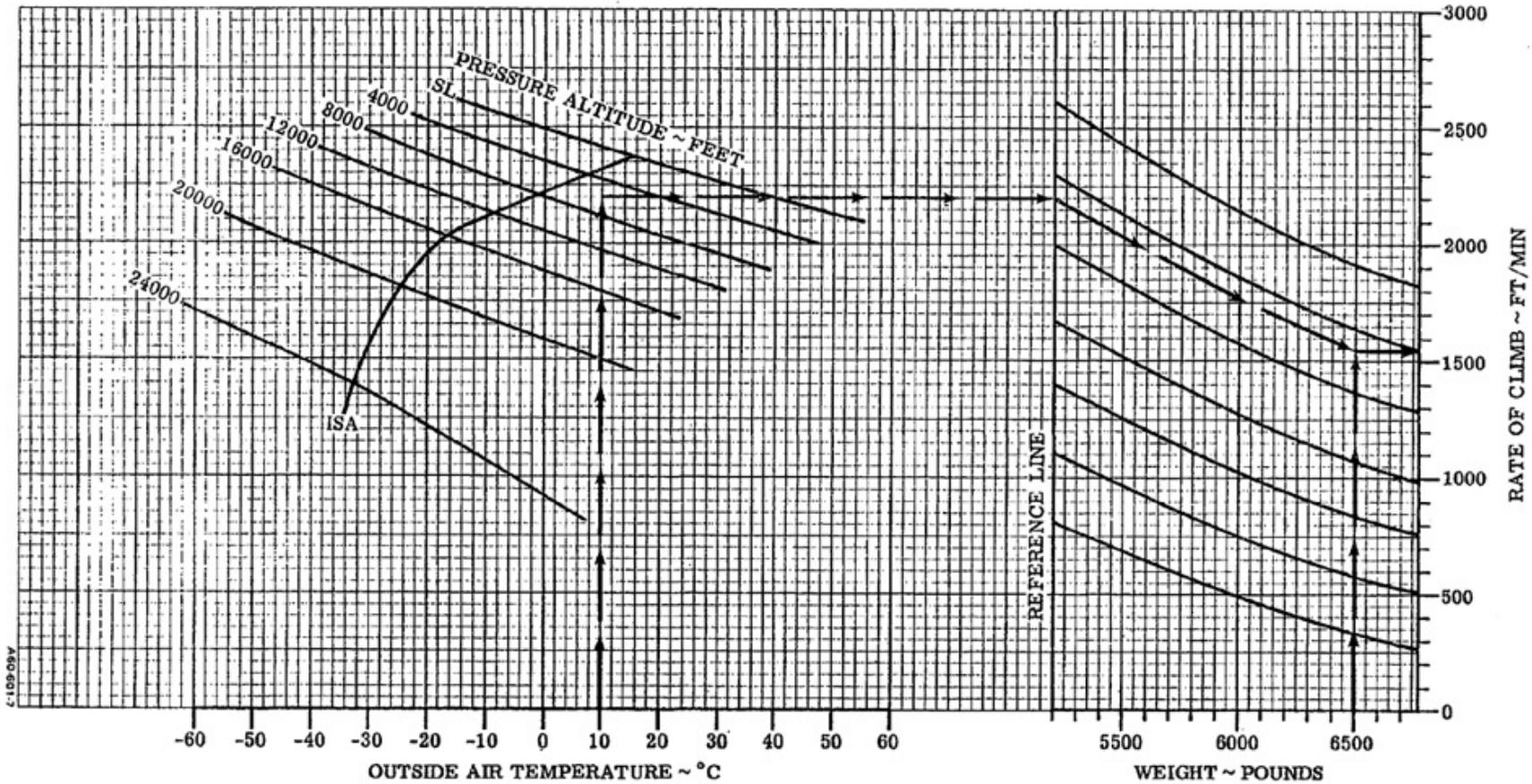
ASSOCIATED CONDITIONS:

POWER	MAXIMUM CONTINUOUS
GEAR	UP
FLAPS	UP
COWL FLAPS	OPEN
CLIMB SPEED	IAS AS TABULATED

WEIGHT POUNDS	CLIMB SPEED (ASSUMES ZERO INST. ERROR)	
	MPH	KNOTS
6775	138	120
6400	137	119
6000	133	116
5600	132	115
5200	130	113

EXAMPLE:

OAT	10°C
PRESSURE ALTITUDE	6000 FT
WEIGHT	6500 LBS
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RATE OF CLIMB	1550 FT/MIN
CLIMB SPEED	119 KIAS



CRUISE CLIMB STANDARD DAY

ASSOCIATED CONDITIONS:

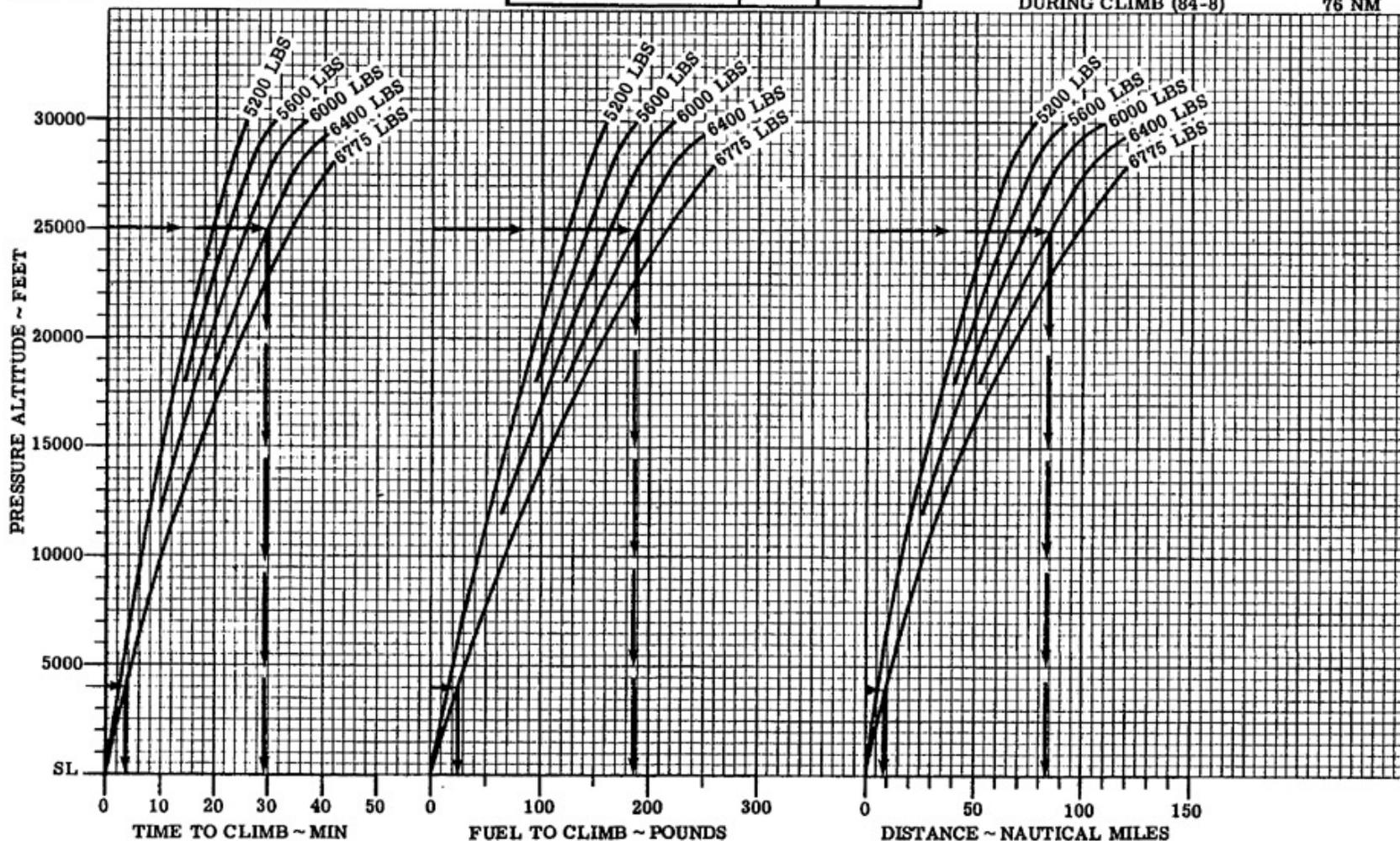
ENGINE SPEED 2750 RPM
 MANIFOLD PRESSURE 35.5 IN. HG. TO CRITICAL ALTITUDE THEN FULL THROTTLE
 FUEL FLOW 194 LB/HR/ENG
 CLIMB SPEED IAS AS TABULATED
 FUEL DENSITY 6.0 LB/GAL

ALTITUDE ~ FEET	CLIMB SPEED	
	MPH	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

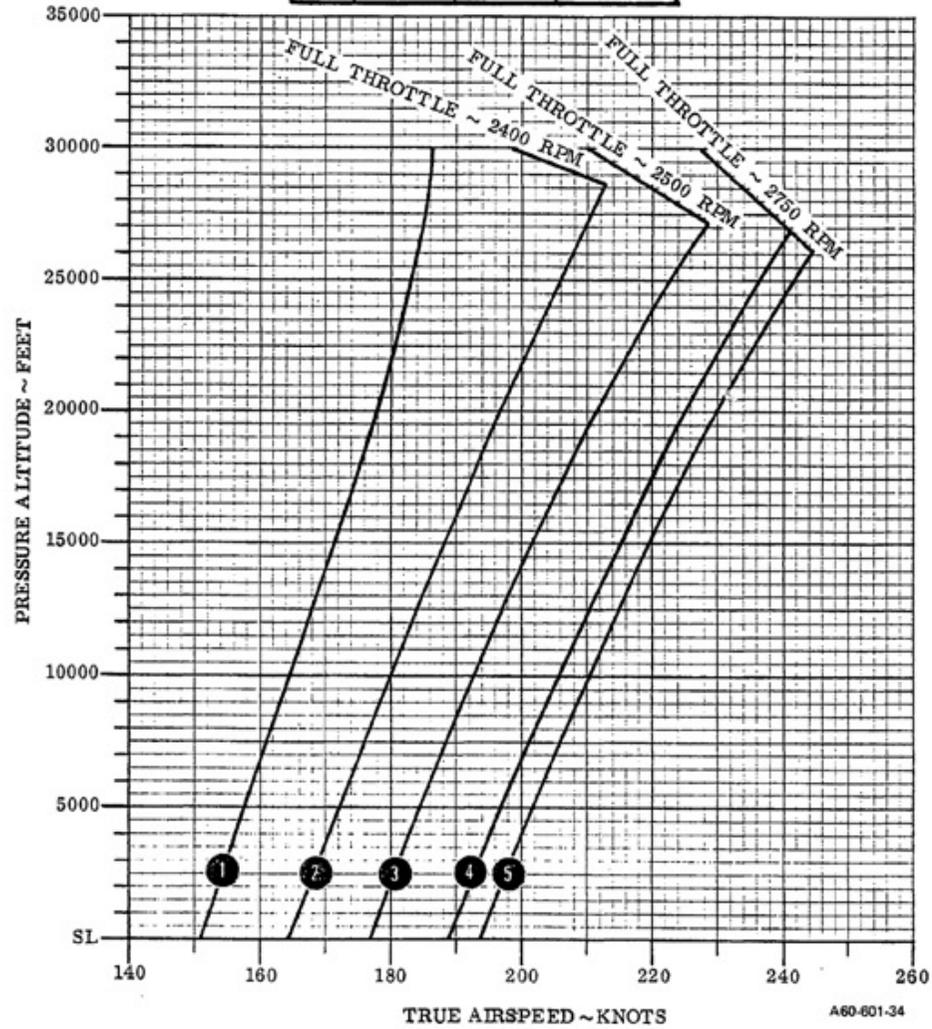


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CRUISE OPERATION

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



SINGLE-ENGINE CLIMB

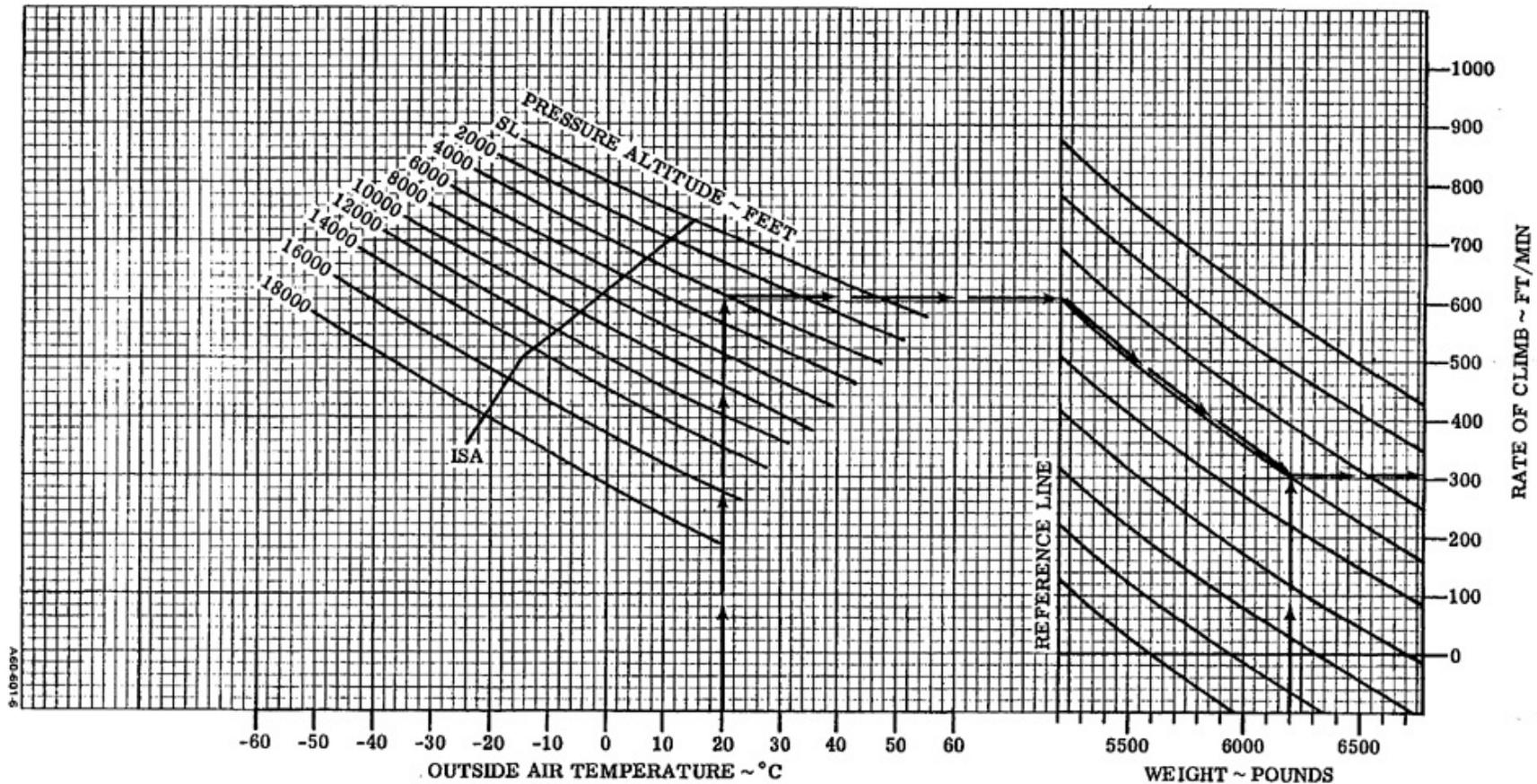
ASSOCIATED CONDITIONS:

POWER	MAXIMUM CONTINUOUS
GEAR	UP
FLAPS	UP
COWL FLAPS	OPEN
INOPERATIVE	
PROPELLER	FEATHERED
CLIMB SPEED	IAS AS TABULATED

WEIGHT POUNDS	CLIMB SPEED ~ KNOTS (ASSUMES ZERO INST. ERROR)	
	MPH	KNOTS
6775	127	110
6400	124	108
6000	122	106
5600	120	104
5200	119	103

EXAMPLE:

OAT	20°C
PRESSURE ALTITUDE	4000 FT
WEIGHT	6200 LBS
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RATE OF CLIMB	305 FT/MIN
CLIMB SPEED	107 KIAS



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
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:
- FULL THROTTLE MANIFOLD PRESSURE SETTINGS ARE APPROXIMATE.
 - 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.
 - SHADED AREA REPRESENTS OPERATION WITH FULL THROTTLE.

CRUISE POWER SETTINGS

65% 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
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	106	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

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
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.

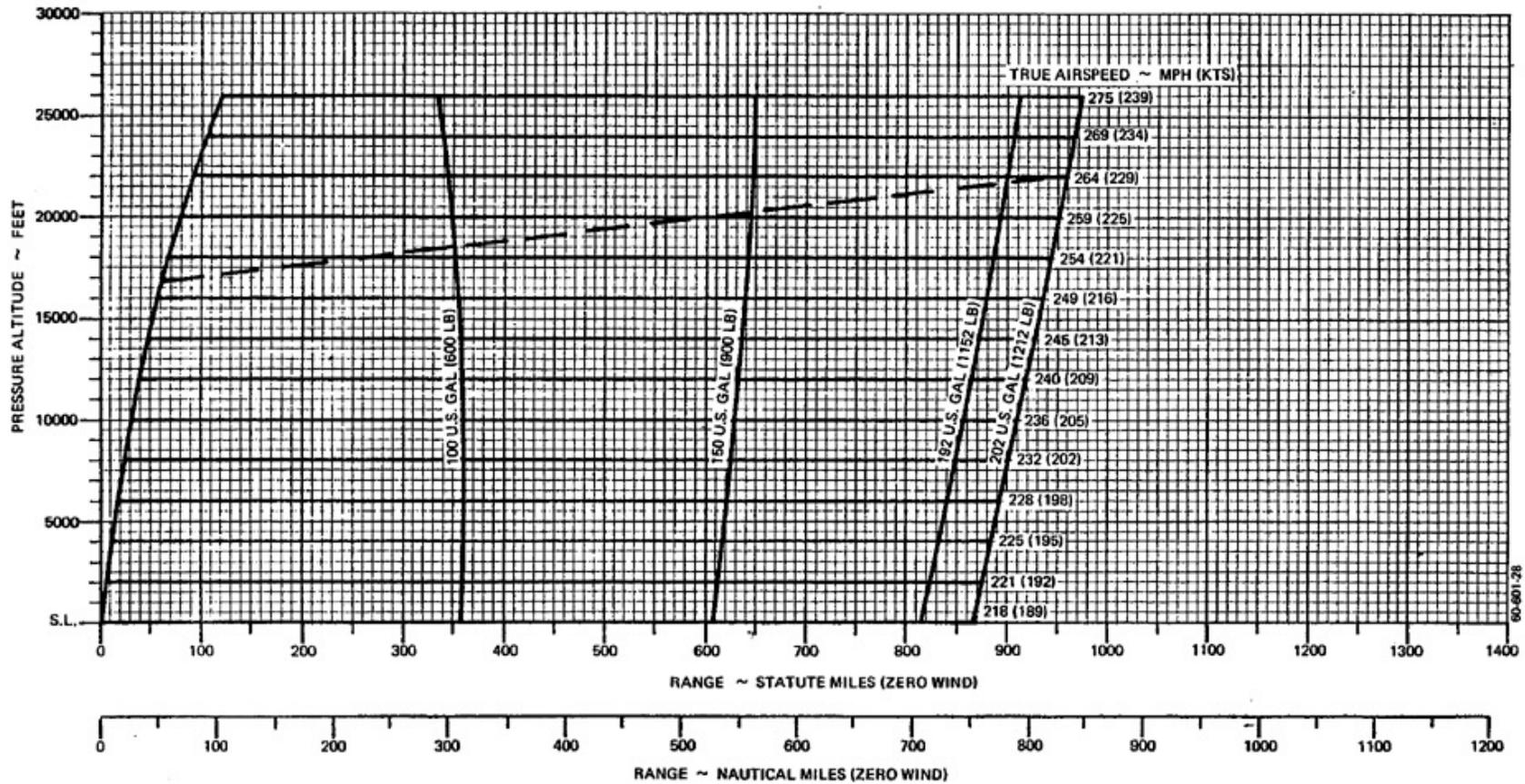
RANGE—75% MAXIMUM CONTINUOUS POWER

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



OBSTACLE LANDING

ASSOCIATED CONDITIONS:

POWER AS REQUIRED TO MAINTAIN
800 FT/MIN ON FINAL APPROACH

FLAPS 30°

RUNWAY PAVED, LEVEL, DRY SURFACE

APPROACH SPEED IAS AS TABULATED

BRAKING MAXIMUM

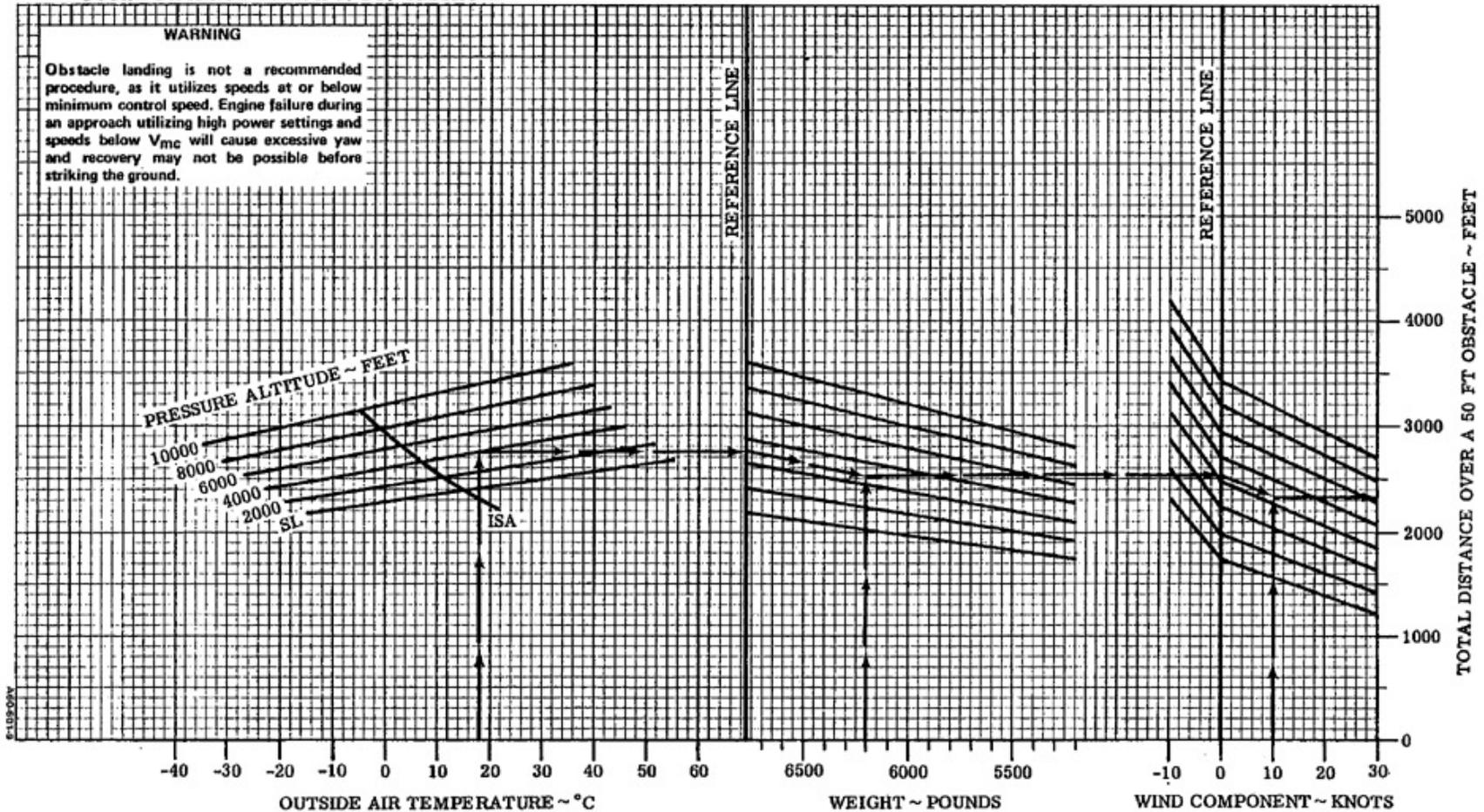
WEIGHT POUNDS	APPROACH SPEED ~ KNOTS (ASSUMES ZERO INST. ERROR)	
	MPH	KNOTS
6775	99	86
6400	97	84
6000	93	81
5600	90	78
5200	86	75

EXAMPLE:

OAT 18°C
PRESSURE ALTITUDE 4000 FT
LANDING WEIGHT 6200 LBS
HEAD WIND COMPONENT 10 KNOTS

TOTAL DISTANCE OVER
A 50 FT OBSTACLE 2325 FT
GROUND ROLL (55% OF 2325) 1279 FT
APPROACH SPEED 83 KIAS

NOTE: GROUND ROLL IS APPROXIMATELY 55% OF TOTAL DISTANCE OVER A 50 FT. OBSTACLE



STALL SPEEDS

