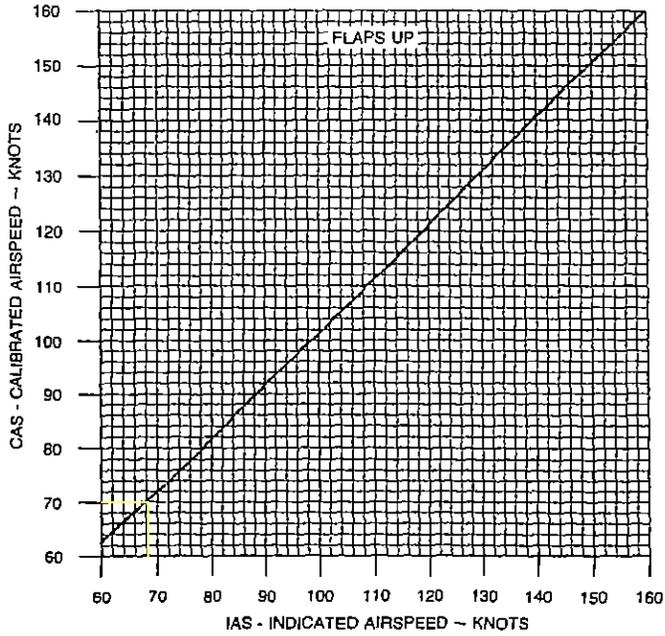


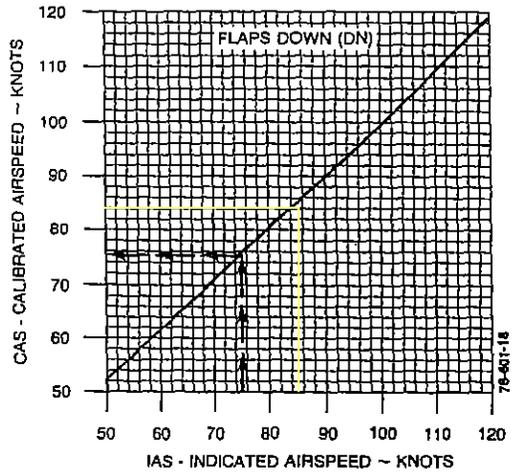
AIRSPEED CALIBRATION - NORMAL SYSTEM

NOTE: INDICATED AIRSPEED ASSUMES ZERO INSTRUMENT ERROR



EXAMPLE:

IAS 75 KTS
 FLAPS DOWN (DN)
 CAS 75 KTS



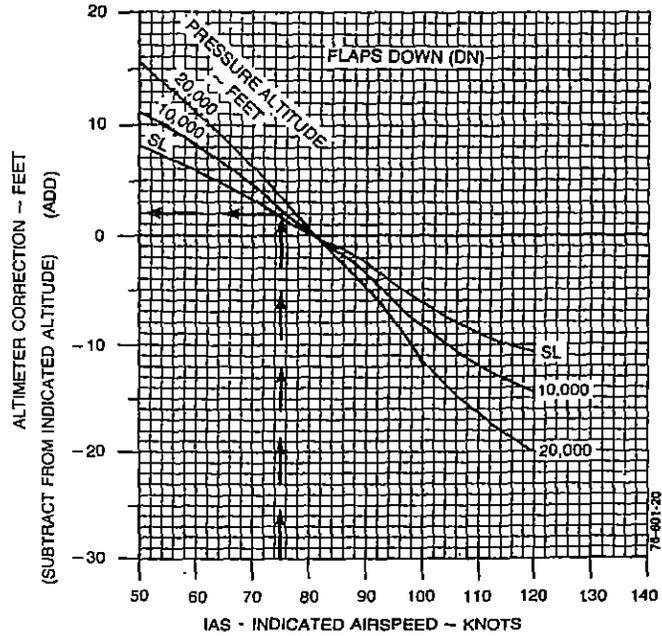
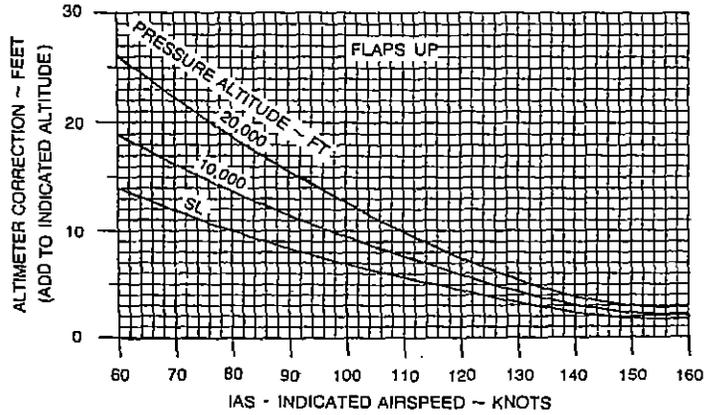
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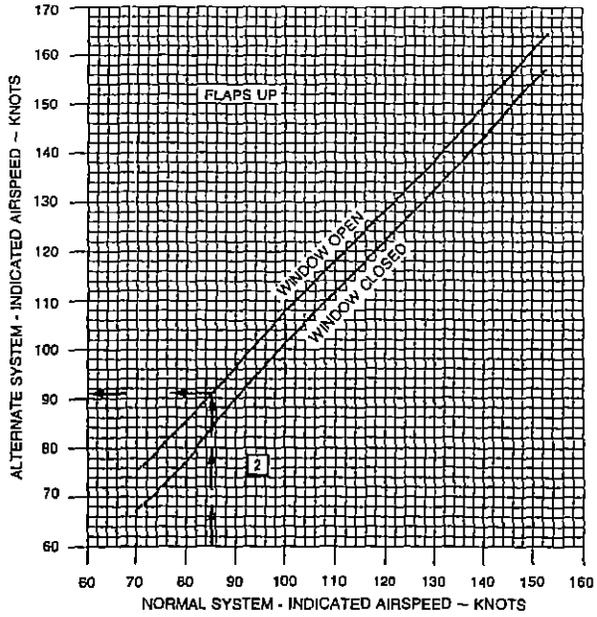
ALTIMETER CORRECTION - NORMAL SYSTEM

EXAMPLE:

IAS	75 KTS
FLAPS	DOWN (DN)
INDICATED PRESSURE ALTITUDE	4000 FT
<hr/>	
ALTIMETER CORRECTION	+2 FT
ACTUAL PRESSURE ALTITUDE	4002 FT



AIRSPPEED CALIBRATION - ALTERNATE SYSTEM

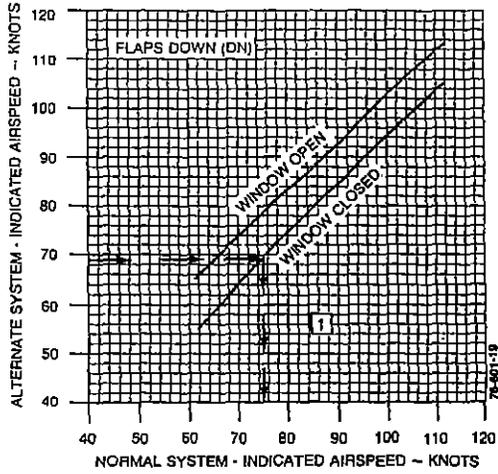


EXAMPLE:

1 FLAPSDOWN (DN)
 STORM WINDOWCLOSED
 IAS - ALTERNATE SYSTEM69 KTS

IAS - NORMAL SYSTEM75 KTS
 CAS - (SEE AIRSPEED CALIBRATION,75 KTS
 NORMAL SYSTEM)

2 FLAPSUP
 STORM WINDOWOPEN
 IAS - NORMAL SYSTEM85 KTS
 IAS - ALTERNATE SYSTEM91 KTS



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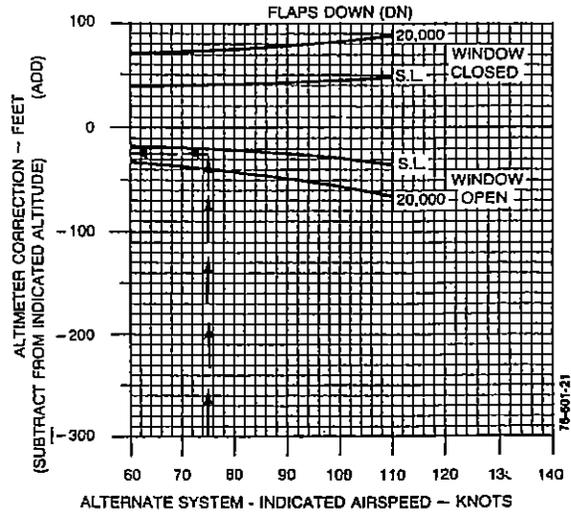
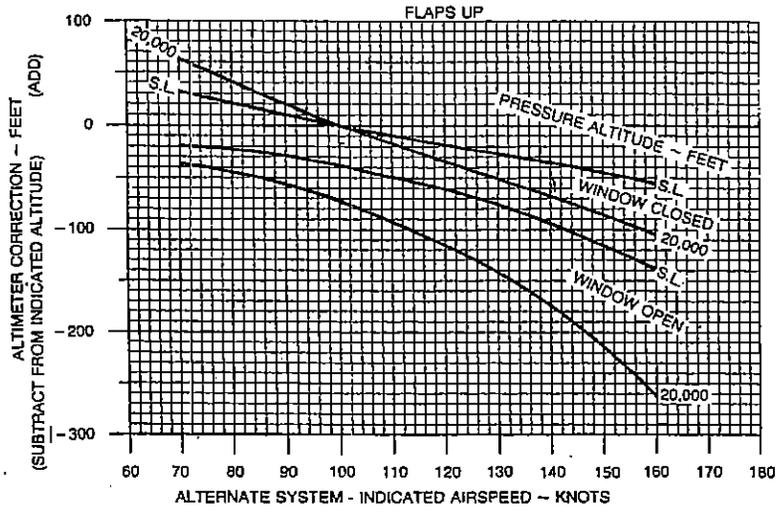
5-19

ALTIMETER CORRECTION - ALTERNATE SYSTEM

EXAMPLE:

IAS..... 75 KTS
 FLAPS..... DOWN (DN)
 INDICATED PRESSURE ALTITUDE..... 4000 FT
 STORM WINDOW..... OPEN

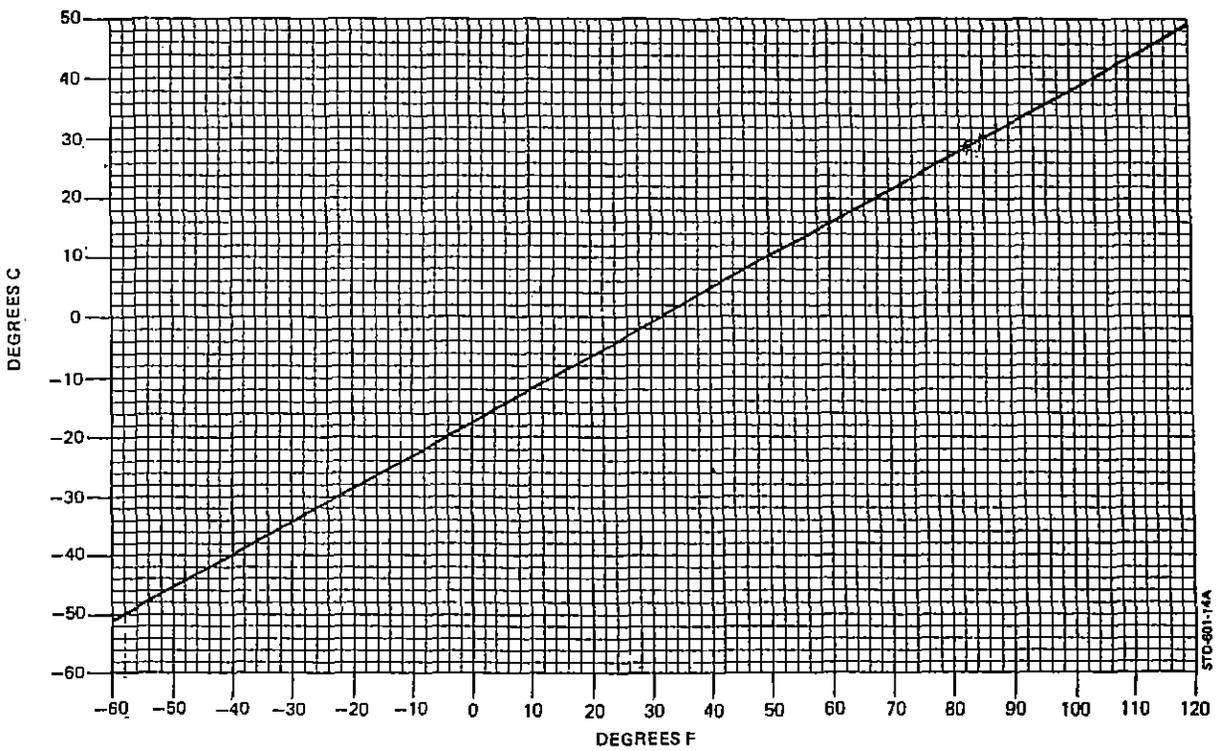
ALTIMETER CORRECTION..... -25 FT
 ACTUAL PRESSURE ALTITUDE..... 3975 FT

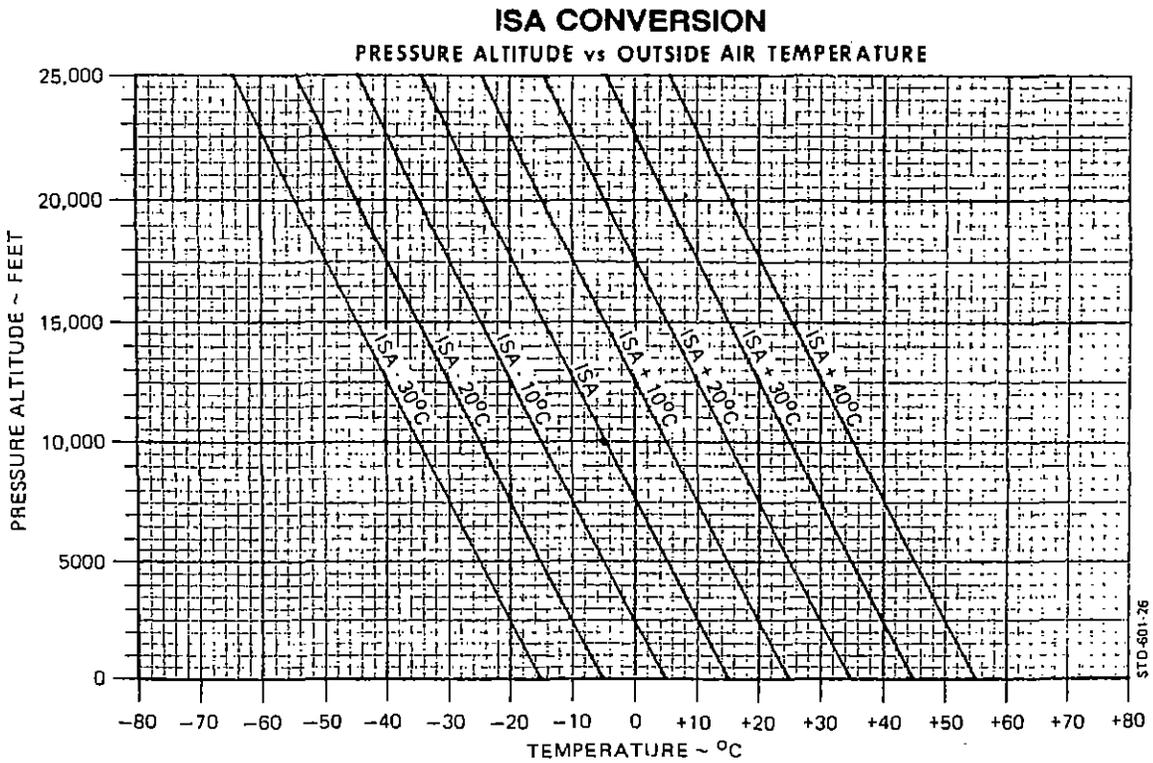


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FAHRENHEIT TO CELSIUS TEMPERATURE CONVERSION



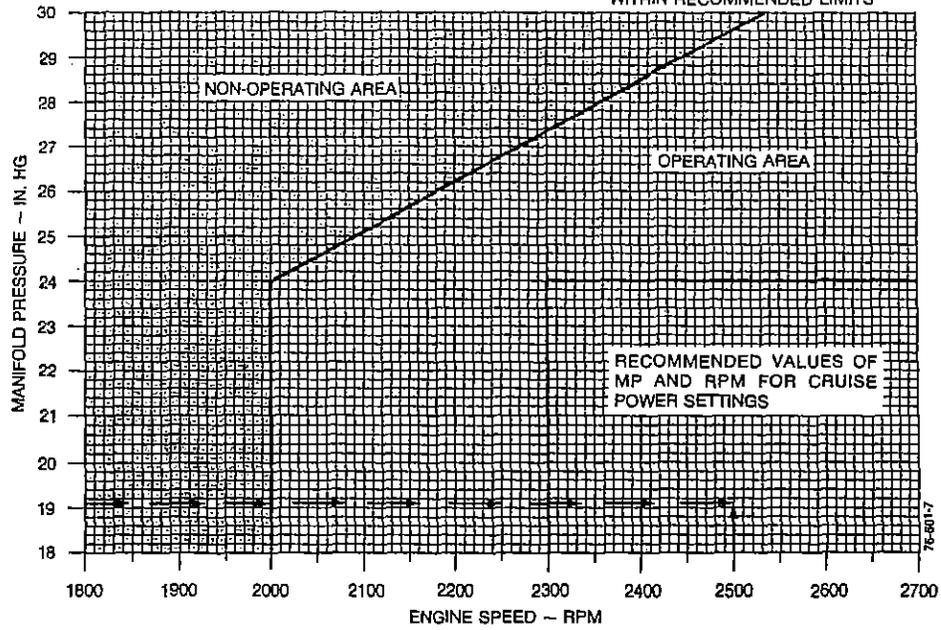


MANIFOLD PRESSURE vs RPM

EXAMPLE:

ENGINE SPEED 2500 RPM
MANIFOLD PRESSURE . . . 19.1 IN. HG

WITHIN RECOMMENDED LIMITS



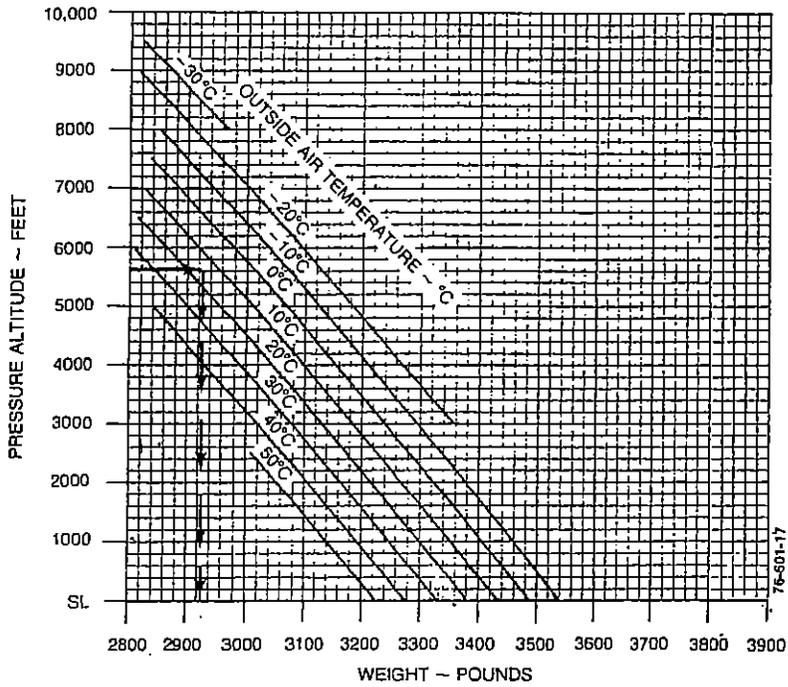
**TAKE-OFF WEIGHT
TO ACHIEVE POSITIVE SINGLE ENGINE
RATE OF CLIMB AT LIFT-OFF**

ASSOCIATED CONDITIONS:

AIRPLANE..... AIRBORNE
POWER..... TAKE-OFF AT
2700 RPM
FLAPS..... UP
LANDING GEAR..... DOWN
INOPERATIVE PROPELLER... FEATHERED

EXAMPLE:

PRESSURE ALTITUDE..... 5650 FT
OAT..... 15°C
TAKE-OFF WEIGHT..... 2925 LBS



2680
340
360

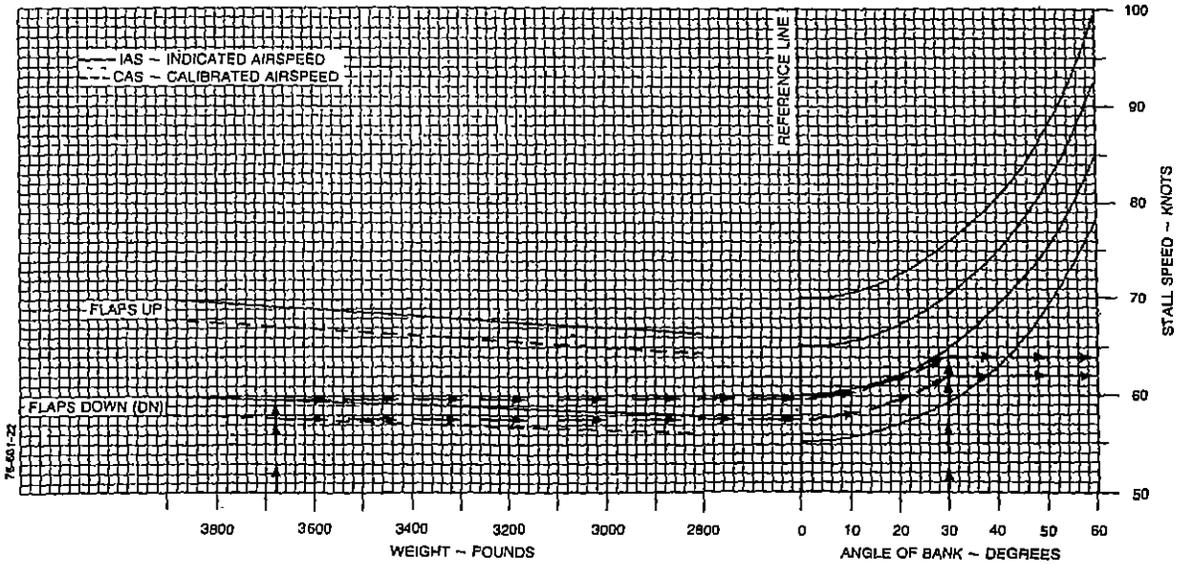
3380

STALL SPEEDS - POWER IDLE

- NOTES:
1. THE MAXIMUM ALTITUDE LOSS EXPERIENCED WHILE CONDUCTING STALLS IN ACCORDANCE WITH FAR 23.201 WAS 400 FEET.
 2. MAXIMUM NOSE DOWN PITCH ATTITUDE AND ALTITUDE LOSS DURING RECOVERY FROM ONE ENGINE INOPERATIVE STALLS PER FAR 23.205 ARE 5° AND 100 FEET RESPECTIVELY.
 3. A NORMAL STALL RECOVERY TECHNIQUE MAY BE USED.

EXAMPLE:

WEIGHT 3677 LBS
 FLAPS DOWN (DN)
 ANGLE OF BANK 30°
 STALL SPEED 64 KTS IAS
 62 KTS CAS



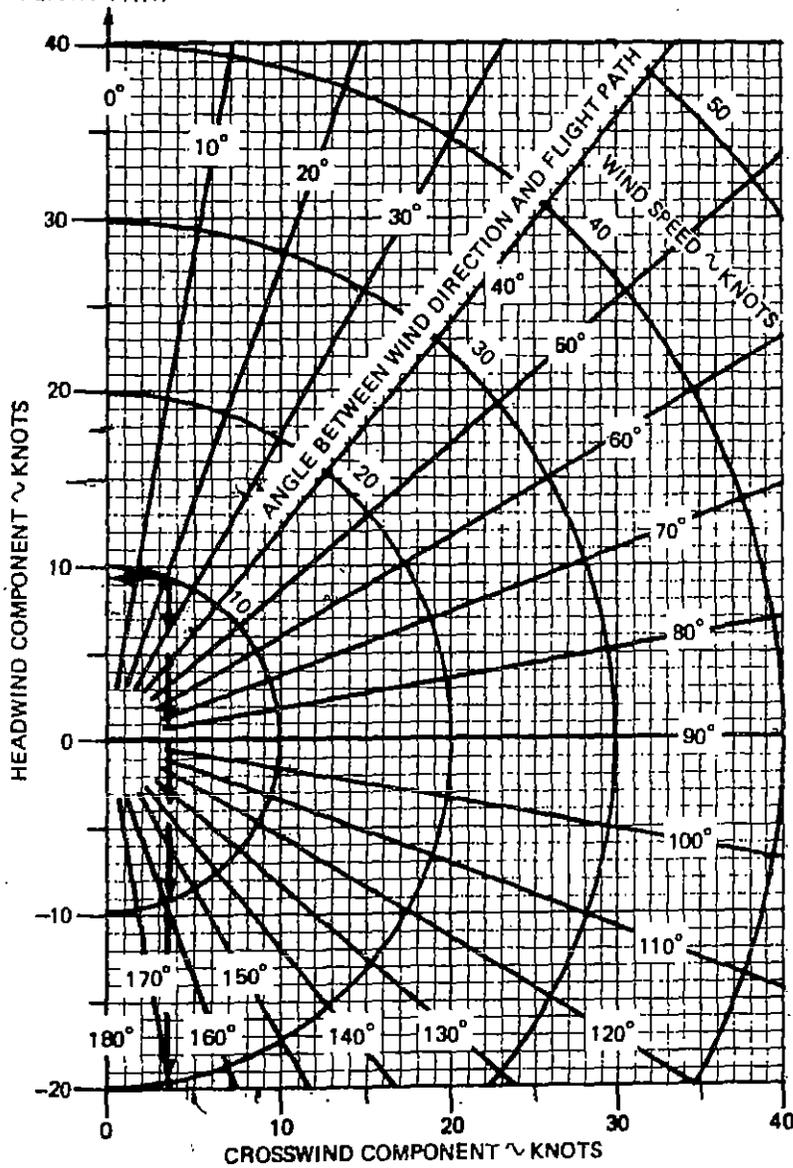
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**WIND COMPONENTS
Demonstrated Crosswind is 25 kts**

EXAMPLE:

WIND SPEED	10 KNOTS
ANGLE BETWEEN WIND DIRECTION AND FLIGHT PATH	20°
HEADWIND COMPONENT	9.5 KNOTS
CROSSWIND COMPONENT	3.5 KNOTS
FLIGHT PATH	



TAKE-OFF DISTANCE

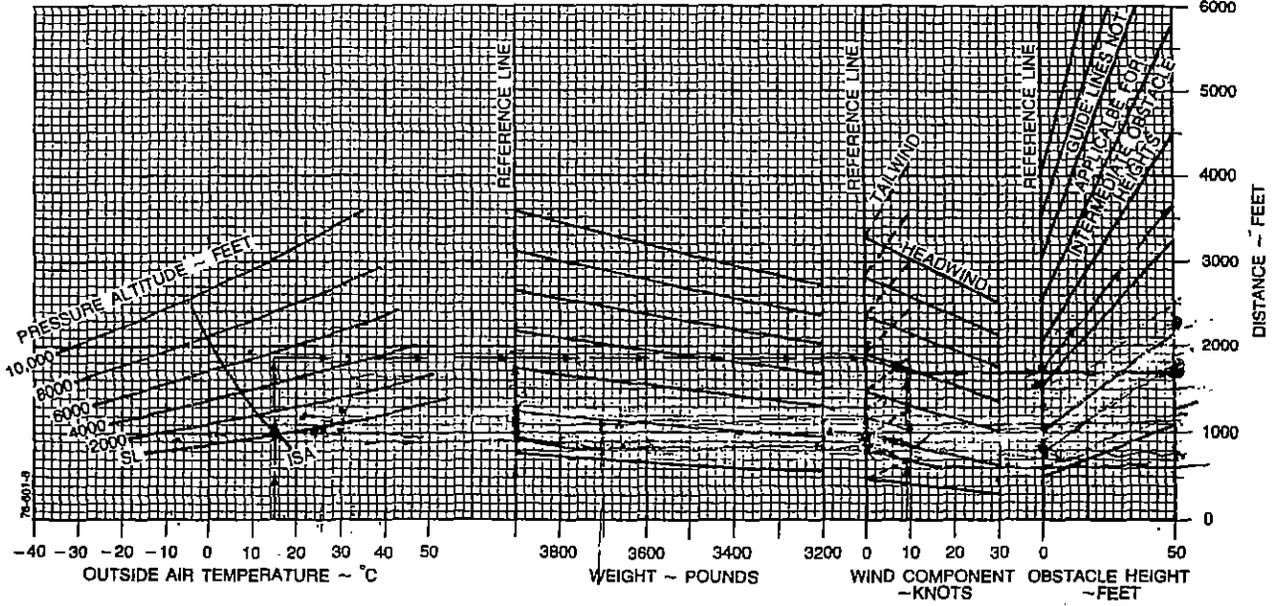
ASSOCIATED CONDITIONS:

- POWER TAKE-OFF POWER AT 2700 RPM SET BEFORE BRAKE RELEASE
- MIXTURE FULL RICH (ABOVE 5000 FT LEAN TO 75°-100° F ON RICH SIDE OF PEAK EGT)
- FLAPS UP
- LANDING GEAR RETRACT AFTER POSITIVE CLIMB ESTABLISHED
- RUNWAY PAVED, LEVEL, DRY SURFACE
- COWL FLAPS OPEN

TAKE-OFF SPEEDS (ALL WEIGHTS)	
LIFT-OFF	71 KNOTS
50 FEET	80 KNOTS

EXAMPLE:

- OAT 15°C
- PRESSURE ALTITUDE 5650 FT
- TAKE-OFF WEIGHT 3900 LBS
- HEADWIND COMPONENT 9.5 KTS
- GROUND ROLL 1680 FT
- TOTAL DISTANCE OVER 50-FT OBSTACLE 3670 FT



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ASSOCIATED CONDITIONS:

POWER TAKE-OFF AT 2700 RPM SET BEFORE BRAKE RELEASE
 FLAPS UP
 LANDING GEAR RETRACT AFTER POSITIVE CLIMB ESTABLISHED
 RUNWAY SHORT, DRY GRASS, LEVEL SURFACE
 COWL FLAPS OPEN
 MIXTURE FULL RICH (ABOVE 5000 FT LEAN TO 75° - 100°F ON RICH SIDE OF PEAK EGT)

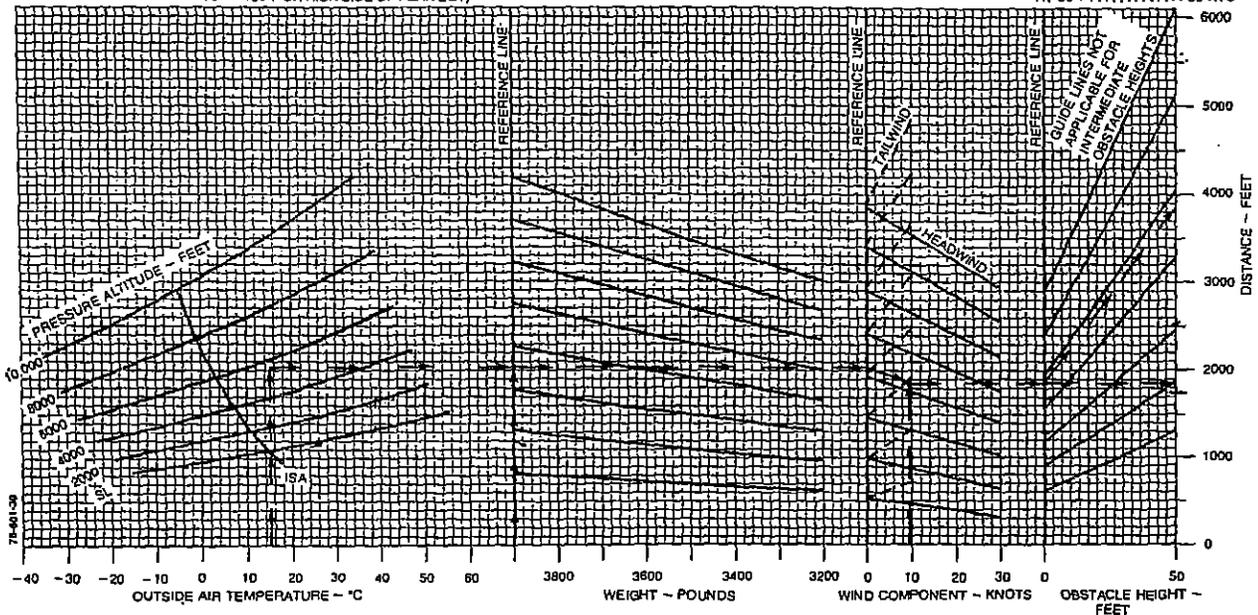
TAKE-OFF DISTANCE - GRASS SURFACE

TAKE-OFF SPEEDS (ALL WEIGHTS)	
LIFT-OFF	71 KNOTS
50 FEET	80 KNOTS

EXAMPLE:

OAT 15°C
 PRESSURE ALTITUDE 5650 FT
 TAKE-OFF WEIGHT 3900 LBS
 HEADWIND COMPONENT 0.5 KTS

GROUND ROLL 1850 FT
 TOTAL DISTANCE OVER 50 FT OBSTACLE 3850 FT
 TAKE-OFF SPEED: AT LIFT-OFF 71 KTS
 AT 50 FT 80 KTS



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ACCELERATE - STOP DISTANCE

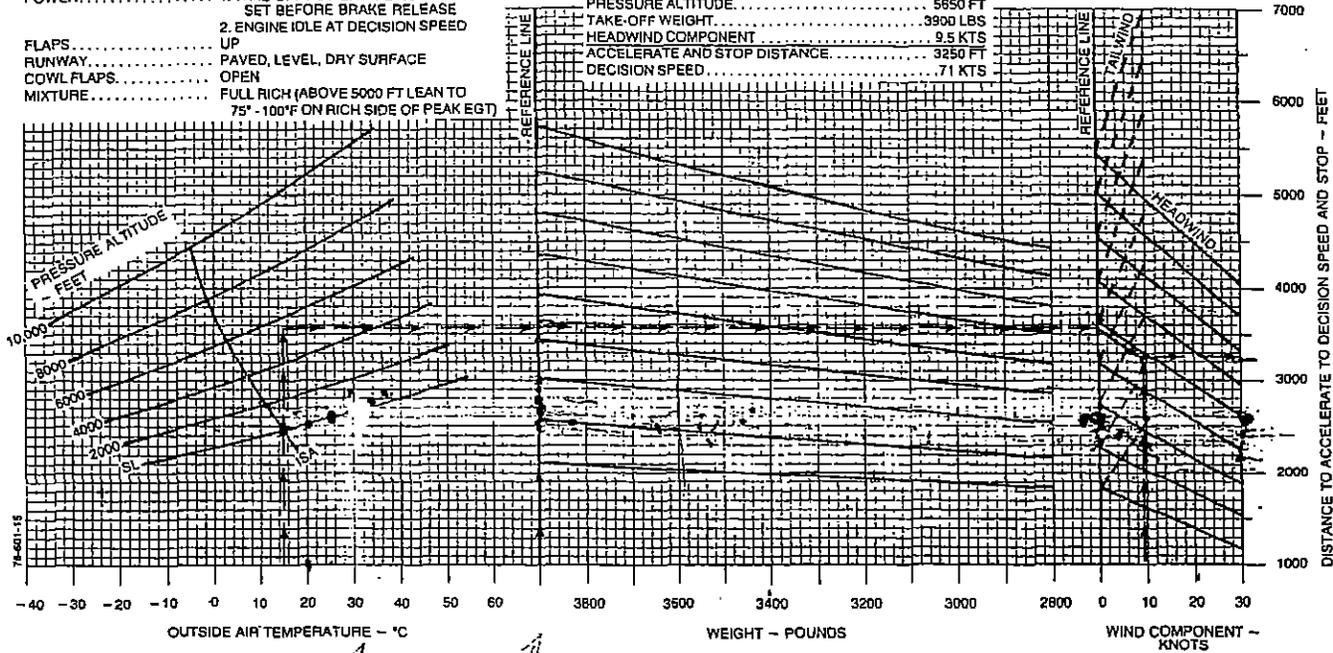
DECISION SPEED 71 KNOTS (ALL WEIGHTS)

ASSOCIATED CONDITIONS:

- POWER..... 1. TAKE-OFF POWER AT 2700 RPM
SET BEFORE BRAKE RELEASE
- FLAPS..... UP
- RUNWAY..... PAVED, LEVEL, DRY SURFACE
- COWL FLAPS..... OPEN
- MIXTURE..... FULL RICH (ABOVE 5000 FT LEAN TO
75° - 100°F ON RICH SIDE OF PEAK EGT)
- 2. ENGINE IDLE AT DECISION SPEED

EXAMPLE:

- OAT..... 15°C
- PRESSURE ALTITUDE..... 5650 FT
- TAKE-OFF WEIGHT..... 3900 LBS
- HEADWIND COMPONENT..... 9.5 KTS
- ACCELERATE AND STOP DISTANCE..... 3250 FT
- DECISION SPEED..... 71 KTS



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ACCELERATE-GO DISTANCE

ASSOCIATED CONDITIONS:

POWER TAKE-OFF POWER AT 2700 RPM.
 SET BEFORE BRAKE RELEASE.
 FLAPS UP
 LANDING GEAR RETRACT AFTER LIFT-OFF.
 RUNWAY PAVED, LEVEL, DRY SURFACE.
 COWL FLAPS OPEN
 MIXTURE FULL RICH (ABOVE 5000 FT, SET TO
 75-100°F ON RICH SIDE OF PEAK EGT)

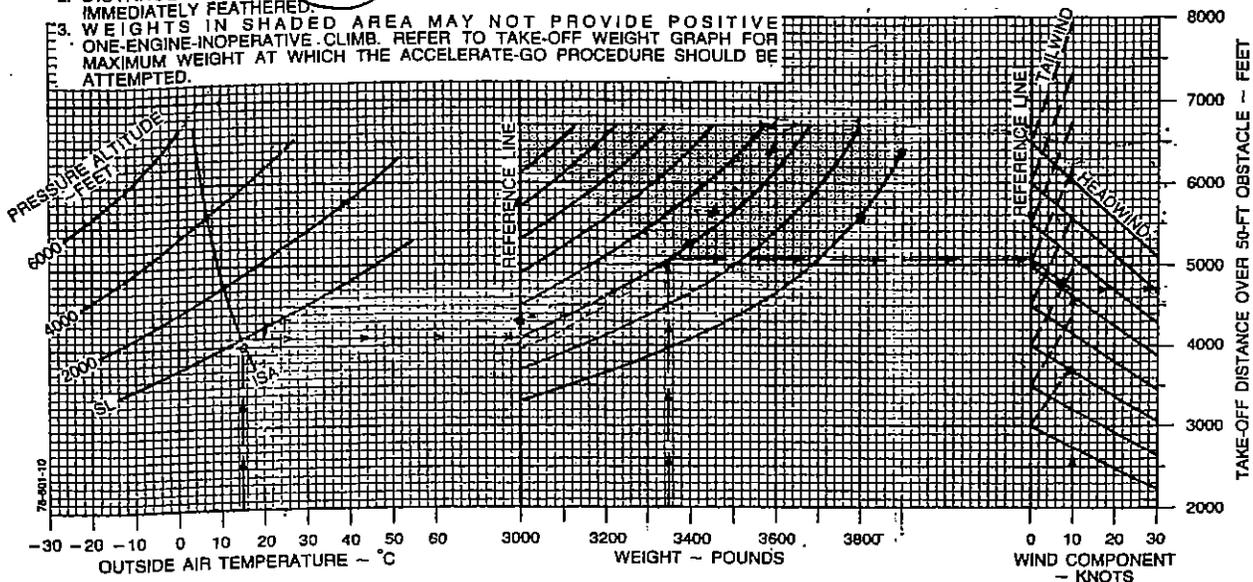
TAKE-OFF SPEEDS (ALL WEIGHTS)	
LIFT-OFF	71 KNOTS
50 FT	80 KNOTS

EXAMPLE:

OAT 15°C
 PRESSURE ALTITUDE SL
 TAKE-OFF WEIGHT 3350 LBS
 HEADWIND COMPONENT 10 KTS

TOTAL DISTANCE OVER
 50-FT OBSTACLE 4788 FT
 GROUND ROLL 940 FT

- NOTE: 1. GROUND ROLL DISTANCE IS 20% OF TAKE-OFF DISTANCE OVER 50-FT OBSTACLE.
 2. DISTANCES ASSUME AN ENGINE FAILURE AT LIFT-OFF AND PROPELLER IMMEDIATELY FEATHERED.
 3. WEIGHTS IN SHADED AREA MAY NOT PROVIDE POSITIVE ONE-ENGINE-INOPERATIVE CLIMB. REFER TO TAKE-OFF WEIGHT GRAPH FOR MAXIMUM WEIGHT AT WHICH THE ACCELERATE-GO PROCEDURE SHOULD BE ATTEMPTED.



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CLIMB - TWO ENGINE

CLIMB SPEED 85 KNOTS (ALL WEIGHTS)

ASSOCIATED CONDITIONS:

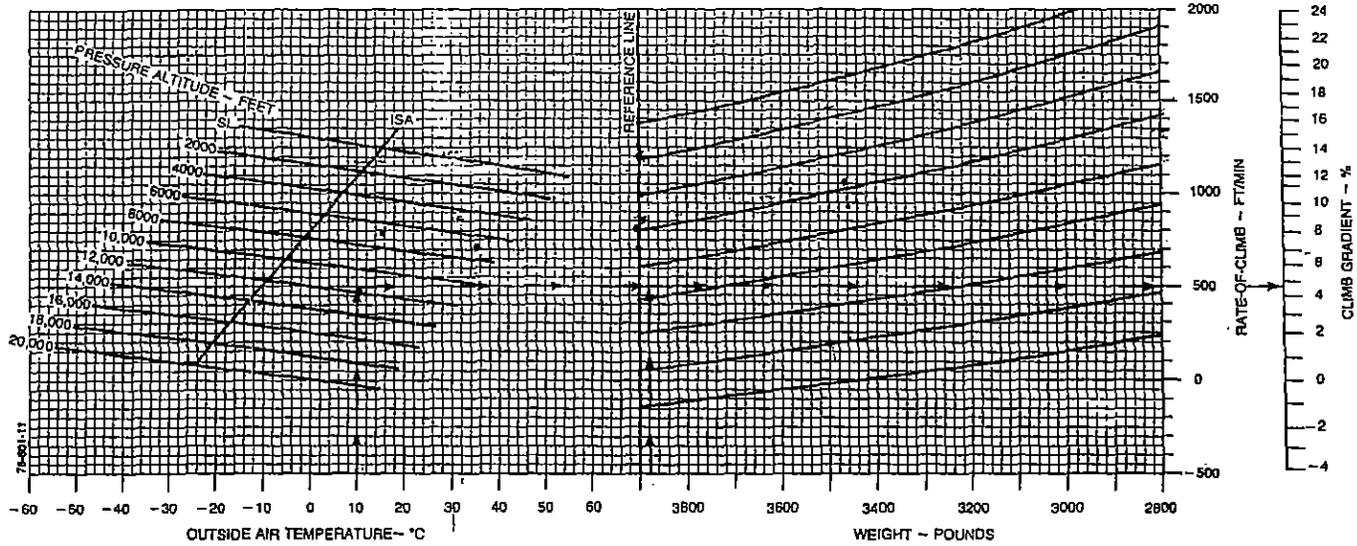
POWER..... MAXIMUM CONTINUOUS AT 2700 RPM
 FLAPS..... UP
 LANDING GEAR..... UP
 COWL FLAPS..... OPEN
 MIXTURE..... FULL RICH (ABOVE 5000 FT LEAN TO 75° - 100°F ON RICH SIDE OF PEAK EGT)

EXAMPLE:

OAT..... 10°C
 PRESSURE ALTITUDE..... 11,500 FT
 WEIGHT..... 3600 LBS
 RATE OF CLIMB..... 500 FT/MIN
 CLIMB GRADIENT..... 4.8%

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TAKE-OFF CLIMB GRADIENT - ONE ENGINE INOPERATIVE

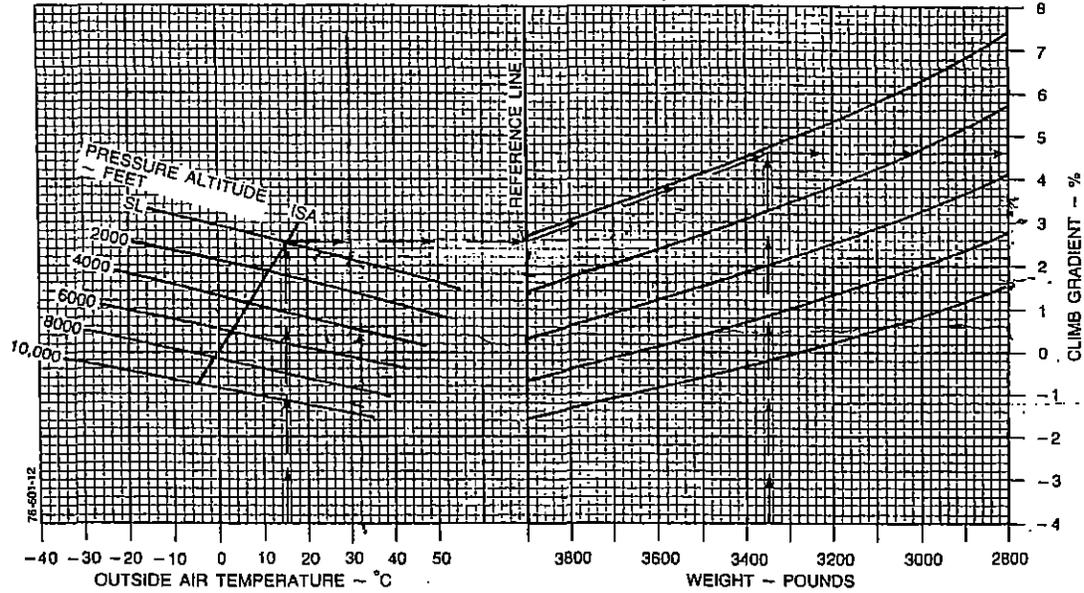
CLIMB SPEED 80 KNOTS (ALL WEIGHTS)

ASSOCIATED CONDITIONS:

POWER TAKE-OFF AT 2700 RPM
 LANDING GEAR UP
 FLAPS UP
 INOPERATIVE PROPELLER FEATHERED
 COWL FLAPS OPEN
 MIXTURE FULL RICH (ABOVE 5000 FT LEAN TO 75-100 F ON RICH SIDE OF PEAK EGT)

EXAMPLE:

OAT 15°C
 PRESSURE ALTITUDE SL
 WEIGHT 3350 LBS
 GRADIENT OF CLIMB 4.6%



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TIME, FUEL, AND DISTANCE TO CLIMB

ASSOCIATED CONDITIONS:

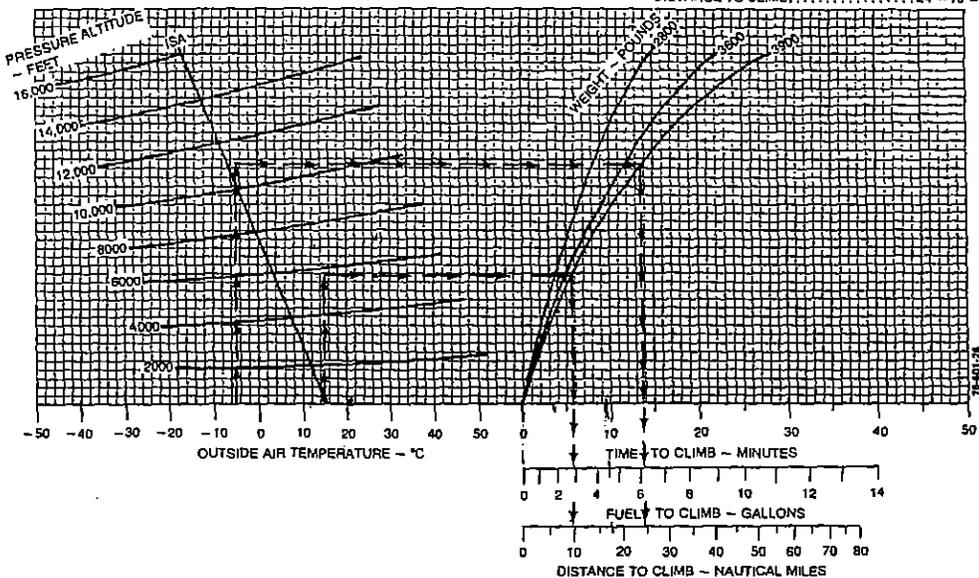
POWER..... FULL THROTTLE AT
 2600 RPM
 FUEL DENSITY..... 6.0 LBS/GAL
 COWL FLAPS..... OPEN
 MIXTURE..... FULL RICH (ABOVE 5000 FT LEAN TO
 75° - 100°F ON RICH SIDE OF PEAK EGT)

CLIMB SPEED 100 KNOTS

EXAMPLE:

OAT AT TAKE-OFF..... 15°C
 OAT AT CRUISE..... -5°C
 AIRPORT PRESSURE ALTITUDE..... 5650 FT
 CRUISE PRESSURE ALTITUDE..... 11,500 FT
 INITIAL CLIMB WEIGHT..... 3900 LBS

TIME TO CLIMB..... 14 - 8 = 8 MINUTES
 FUEL TO CLIMB..... 6.1 - 2.8 = 3.3 GAL
 DISTANCE TO CLIMB..... 24 - 10 = 14 NM



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CLIMB - ONE ENGINE INOPERATIVE

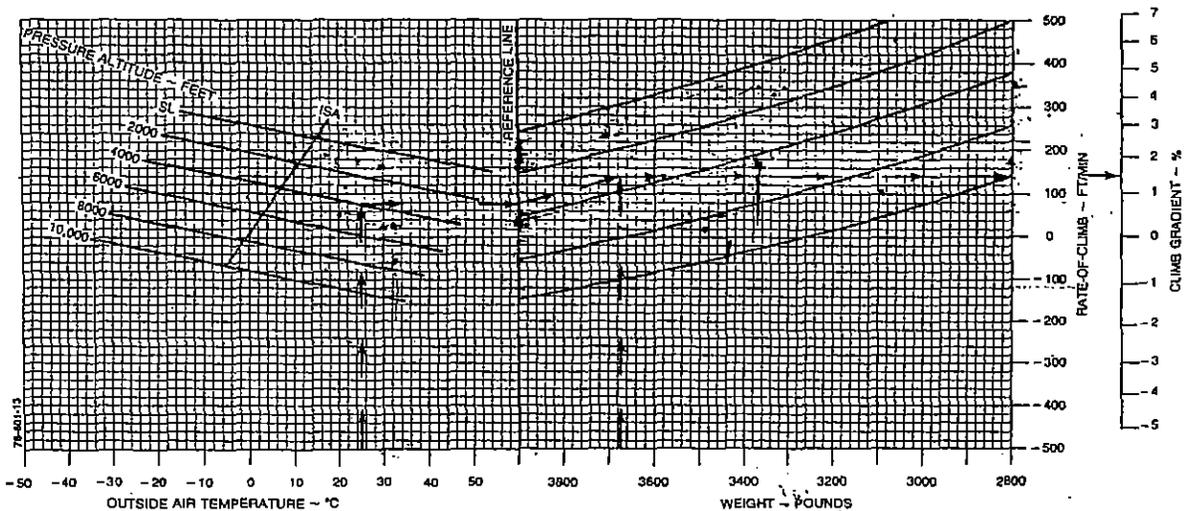
CLIMB SPEED 85 KNOTS (ALL WEIGHTS)

ASSOCIATED CONDITIONS:

POWER..... TAKE-OFF AT 2700 RPM
LANDING GEAR..... UP
FLAPS..... UP
INOPERATIVE PROPELLER..... FEATHERED
COWL FLAPS..... OPEN
MIXTURE..... FULL RICH (ABOVE 5000 FT LEAN TO
75° - 100°F ON RICH SIDE OF PEAK EGT)

EXAMPLE:

OAT..... 25°C
PRESSURE ALTITUDE..... 3985 FT
WEIGHT..... 3877 LBS
RATE OF CLIMB..... 140 FT/MIN
CLIMB GRADIENT..... 1.5%
CLIMB SPEED..... 85 KTS



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SERVICE CEILING - ONE ENGINE INOPERATIVE
CLIMB SPEED - 85 KNOTS (ALL WEIGHTS)

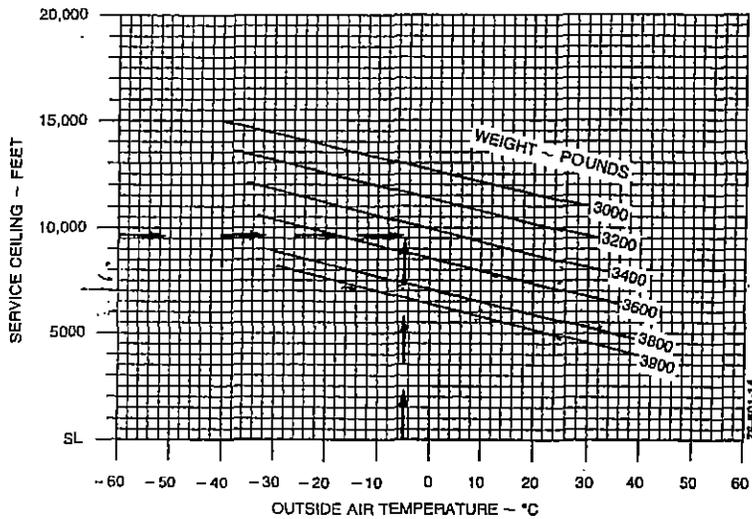
ASSOCIATED CONDITIONS:

POWER.....MAXIMUM
CONTINUOUS
AT 2700 RPM
FLAPS.....UP
LANDING GEAR.....UP
INOPERATIVE PROPELLER...FEATHERED

EXAMPLE:

OAT AT MEA.....-5°C
ROUTE SEGMENT MEA.....9700 FT
WEIGHT FOR SERVICE CEILING
AT ROUTE SEGMENT MEA....3480 LBS

NOTE: SERVICE CEILING IS ALTITUDE WHERE AIRPLANE HAS CAPABILITY OF CLIMBING 50 FT/MIN WITH ONE PROPELLER FEATHERED.



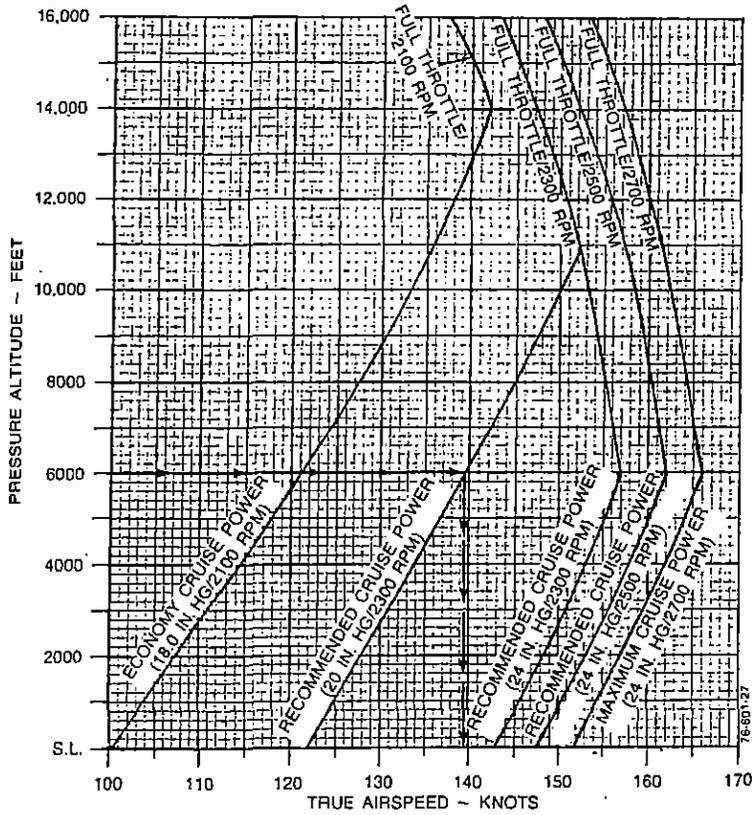
CRUISE SPEEDS

ASSOCIATED CONDITIONS:

AVERAGE CRUISE WEIGHT . . . 3600 LBS
 TEMPERATURE STD DAY (ISA)

EXAMPLE:

PRESSURE ALTITUDE . . 6000 FT
 POWER SETTING 20 IN.HG/2300 RPM
 TRUE AIRSPEED 139.5 KTS



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MAXIMUM CRUISE POWER - 24.0 IN. HG @ 2700 RPM (OR FULL THROTTLE)

PRESS ALT FEET	ISA - 20°C (-36°F)						STANDARD DAY (ISA)						ISA + 20°C (+36°F)								
	IOAT		MAN. PRESS	FUEL FLOW/ ENGINE		IAS	TAS	IOAT		MAN. PRESS	FUEL FLOW/ ENGINE		IAS	TAS	IOAT		MAN. PRESS	FUEL FLOW/ ENGINE		IAS	TAS
	°C	°F	IN.HG	PPH	GPH	KTS	KTS	°C	°F	IN.HG	PPH	GPH	KTS	KTS	°C	°F	IN.HG	PPH	GPH	KTS	KTS
SL	-3	27	24.0	67	11.1	156	151	17	63	24.0	65	10.8	152	152	37	99	24.0	62	10.3	148	153
1000	-5	23	24.0	68	11.3	156	153	15	59	24.0	65	10.8	152	155	35	95	24.0	63	10.5	148	156
2000	-7	19	24.0	68	11.3	156	155	13	55	24.0	66	11.0	152	157	33	91	24.0	63	10.5	148	158
3000	-9	16	24.0	69	11.5	156	158	11	52	24.0	66	11.0	152	159	31	88	24.0	64	10.7	148	161
4000	-11	12	24.0	69	11.5	157	160	9	48	24.0	67	11.2	153	162	30	86	24.0	65	10.8	149	163
5000	-12	10	24.0	70	11.7	157	163	8	46	24.0	68	11.3	153	164	28	82	24.0	65	10.8	148	165
6000	-14	7	23.5	70	11.7	156	164	6	43	23.5	68	11.3	152	166	26	79	23.5	65	10.8	148	167
7000	-16	3	22.6	68	11.3	153	164	4	39	22.6	65	10.8	149	165	24	75	22.6	63	10.5	145	166
8000	-18	0	21.8	65	10.8	150	163	2	36	21.8	63	10.5	146	164	22	72	21.8	61	10.2	142	165
9000	-20	-4	20.9	63	10.5	147	162	0	32	20.9	61	10.2	143	163	20	68	20.9	59	9.8	139	164
10,000	-22	-8	20.2	61	10.2	144	161	-2	28	20.2	59	9.8	140	162	18	64	20.2	57	9.5	135	163
11,000	-24	-11	19.4	59	9.8	141	160	-4	25	19.4	57	9.5	136	161	16	61	19.4	55	9.2	132	162
12,000	-26	-15	18.6	56	9.3	138	159	-6	21	18.6	54	9.0	133	160	14	57	18.6	53	8.8	129	161
13,000	-28	-18	17.9	54	9.0	134	157	-8	18	17.9	52	8.7	130	158	12	54	17.9	50	8.3	126	159
14,000	-31	-24	17.2	52	8.7	131	156	-10	14	17.2	50	8.3	127	157	10	50	17.2	48	8.0	122	157
15,000	-33	-27	16.6	50	8.3	127	154	-12	10	16.6	48	8.0	123	155	8	46	16.6	47	7.8	119	155
16,000	-35	-31	15.9	48	8.0	124	152	-15	5	15.9	46	7.7	120	153	6	43	15.9	45	7.5	115	153

- NOTES: 1. Full throttle manifold pressure settings are approximate.
 2. Shaded area represents operation with full throttle.
 3. Lean to 25° - 50°F on rich side of peak EGT.
 4. Cruise speeds are presented at an average weight of 3600 lbs.

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RECOMMENDED CRUISE POWER - 24.0 IN. HG @ 2500 RPM (OR FULL THROTTLE)

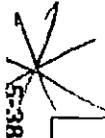
PRESS ALT FEET	ISA - 20°C (-36°F)							STANDARD DAY (ISA)							ISA + 20°C (+36°F)						
	IOAT		MAN. PRESS	FUEL FLOW/ ENGINE		IAS	TAS	IOAT		MAN. PRESS	FUEL FLOW/ ENGINE		IAS	TAS	IOAT		MAN. PRESS	FUEL FLOW/ ENGINE		IAS	TAS
	°C	°F	IN.HG	PPH	GPH	KTS	KTS	°C	°F	IN.HG	PPH	GPH	KTS	KTS	°C	°F	IN.HG	PPH	GPH	KTS	KTS
SL	-3	27	24.0	61	10.2	152	147	17	63	24.0	59	9.8	148	148	37	99	24.0	57	9.5	144	149
1000	-5	23	24.0	62	10.3	152	149	15	59	24.0	60	10.0	148	151	35	95	24.0	58	9.7	144	151
2000	-7	19	24.0	63	10.5	153	152	13	55	24.0	61	10.2	148	153	33	91	24.0	58	9.7	144	154
3000	-9	16	24.0	64	10.7	153	154	11	52	24.0	61	10.2	149	155	31	88	24.0	59	9.8	144	156
4000	-11	12	24.0	64	10.7	153	156	9	48	24.0	62	10.3	149	158	29	84	24.0	60	10.0	144	159
5000	-13	9	24.0	65	10.8	153	159	7	45	24.0	63	10.5	149	160	28	82	24.0	61	10.2	144	161
6000	-15	5	23.6	66	11.0	153	161	6	43	23.6	63	10.5	148	162	26	79	23.6	61	10.2	144	163
7000	-17	1	22.7	63	10.5	150	160	4	39	22.7	61	10.2	145	161	24	75	22.7	59	9.8	141	162
8000	-19	-2	21.9	61	10.2	146	159	2	36	21.9	59	9.8	142	160	22	72	21.9	57	9.5	138	161
9000	-21	-6	21.0	59	9.8	143	158	0	32	21.0	57	9.5	139	159	20	68	21.0	55	9.2	135	160
10,000	-23	-9	20.2	57	9.5	140	157	-3	27	20.2	55	9.2	136	158	18	64	20.2	53	8.8	132	159
11,000	-25	-13	19.4	55	9.2	137	156	-5	23	19.4	53	8.8	133	157	16	61	19.4	51	8.5	129	158
12,000	-27	-17	18.7	53	8.8	134	155	-7	19	18.7	51	8.5	130	156	14	57	18.7	49	8.2	125	156
13,000	-29	-20	18.0	51	8.5	131	153	-9	16	18.0	49	8.2	126	154	11	52	18.0	47	7.8	122	155
14,000	-31	-24	17.3	49	8.2	127	152	-11	12	17.3	47	7.8	123	152	9	48	17.3	45	7.5	118	153
15,000	-33	-27	16.6	47	7.8	124	150	-13	9	16.6	45	7.5	120	151	7	45	16.6	44	7.3	115	151
16,000	-35	-31	16.0	45	7.5	121	148	-15	5	16.0	43	7.2	116	148	5	41	16.0	42	7.0	111	148

- NOTES: 1. Full throttle manifold pressure settings are approximate.
 2. Shaded area represents operation with full throttle.
 3. Lean to 25° - 50°F on rich side of peak EGT.
 4. Cruise speeds are presented at an average weight of 3600 lbs.

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BEECHCRAFT
Duchess 76

Section V
Performance



RECOMMENDED CRUISE POWER - 24.0 IN. HG @ 2300 RPM (OR FULL THROTTLE)

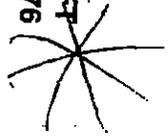
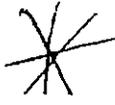
PRESS ALT FEET	ISA - 20°C (-36°F)							STANDARD DAY (ISA)							ISA + 20°C (+36°F)						
	IOAT		MAN. PRESS	FUEL FLOW/ ENGINE		IAS	TAS	IOAT		MAN. PRESS	FUEL FLOW/ ENGINE		IAS	TAS	IOAT		MAN. PRESS	FUEL FLOW/ ENGINE		IAS	TAS
	°C	°F	IN.HG	PPH	GPH	KTS	KTS	°C	°F	IN.HG	PPH	GPH	KTS	KTS	°C	°F	IN.HG	PPH	GPH	KTS	KTS
SL	-3	27	24.0	55	9.2	147	142	17	63	24.0	53	8.8	143	143	37	99	24.0	51	8.5	139	144
1000	-5	23	24.0	56	9.3	147	144	15	59	24.0	54	9.0	143	145	35	95	24.0	52	8.7	139	146
2000	-7	19	24.0	57	9.5	148	147	13	55	24.0	55	9.2	143	148	33	91	24.0	53	8.8	139	149
3000	-9	16	24.0	58	9.7	148	149	11	52	24.0	56	9.3	144	150	31	88	24.0	54	9.0	139	151
4000	-11	12	24.0	59	9.8	148	152	9	48	24.0	57	9.5	144	153	29	84	24.0	55	9.2	140	153
5000	-13	9	24.0	60	10.0	148	154	7	45	24.0	58	9.7	144	155	27	81	24.0	56	9.3	140	156
6000	-15	5	23.7	61	10.2	148	156	5	41	23.7	59	9.8	144	157	25	77	23.7	57	9.5	140	158
7000	-17	1	22.8	59	9.8	145	155	3	37	22.8	57	9.5	141	156	23	73	22.8	55	9.2	137	157
8000	-19	-2	21.9	57	9.5	142	154	1	34	21.9	55	9.2	138	155	21	70	21.9	53	8.8	134	156
9000	-21	-6	21.1	55	9.2	139	153	-1	30	21.1	53	8.8	135	154	19	66	21.1	51	8.5	131	155
10,000	-23	-9	20.3	53	8.8	136	152	-3	27	20.3	51	8.5	132	153	17	63	20.3	49	8.2	127	154
11,000	-25	-13	19.5	51	8.5	133	151	-5	23	19.5	49	8.2	129	152	15	59	19.5	47	7.8	124	152
12,000	-27	-17	18.8	49	8.2	130	150	-7	19	18.8	47	7.8	125	151	13	55	18.8	46	7.7	121	151
13,000	-29	-20	18.0	47	7.8	127	148	-9	16	18.0	46	7.7	122	149	11	52	18.0	44	7.3	117	149
14,000	-31	-24	17.3	45	7.5	123	147	-11	12	17.3	44	7.3	119	147	9	48	17.3	42	7.0	114	147
15,000	-33	-27	16.7	44	7.3	120	145	-13	9	16.7	42	7.0	115	145	7	45	16.7	41	6.8	110	144
16,000	-35	-31	16.0	42	7.0	116	143	-15	5	16.0	40	6.7	111	143	5	41	16.0	39	6.5	106	142

Section V
Performance

BEECHCRAFT
Duchess 76

- NOTES: 1. Full throttle manifold pressure settings are approximate.
 2. Shaded area represents operation with full throttle.
 3. Lean to 25° - 50°F on rich side of peak EGT.
 4. Cruise speeds are presented at an average weight of 3600 lbs.

January 1978



January 1982

RECOMMENDED CRUISE POWER - 20.0 IN. HG @ 2300 RPM (OR FULL THROTTLE)

PRESS ALT. FEET	ISA -20°C (-36°F)						STANDARD DAY (ISA)						ISA +20°C (+36°F)								
	IOAT		MAN. PRESS.	FUEL FLOW/ ENGINE		IAS	TAS	IOAT		MAN. PRESS.	FUEL FLOW/ ENGINE		IAS	TAS	IOAT		MAN. PRESS.	FUEL FLOW/ ENGINE		IAS	TAS
	°C	°F	IN.HG	PPH	GPH	KTS	KTS	°C	°F	IN.HG	PPH	GPH	KTS	KTS	°C	°F	IN.HG	PPH	GPH	KTS	KTS
SL	-4	25	20.0	41	6.8	127	122	16	61	20.0	40	6.7	123	123	36	97	20.0	38	6.3	119	123
1000	-6	21	20.0	42	7.0	128	125	14	57	20.0	41	6.8	124	126	34	93	20.0	39	6.5	120	126
2000	-7	19	20.0	43	7.2	129	128	13	55	20.0	42	7.0	125	129	33	91	20.0	40	6.7	121	129
3000	-9	16	20.0	44	7.3	130	131	11	52	20.0	42	7.0	126	132	31	88	20.0	41	6.8	122	132
4000	-11	12	20.0	45	7.5	131	134	9	48	20.0	43	7.2	127	135	29	84	20.0	42	7.0	122	135
5000	-13	9	20.0	46	7.7	131	136	7	45	20.0	44	7.3	127	137	27	81	20.0	43	7.2	123	137
6000	-15	5	20.0	47	7.8	132	139	5	41	20.0	45	7.5	128	140	25	77	20.0	44	7.3	124	140
7000	-17	1	20.0	48	8.0	133	142	3	37	20.0	46	7.7	128	143	23	73	20.0	45	7.5	124	143
8000	-19	-2	20.0	49	8.2	133	145	1	34	20.0	47	7.8	129	145	21	70	20.0	46	7.7	125	146
9000	-21	-6	20.0	50	8.3	134	147	-1	30	20.0	48	8.0	129	148	19	66	20.0	47	7.8	125	149
10,000	-23	-9	20.0	51	8.5	134	150	-3	27	20.0	49	8.2	130	151	17	63	20.0	48	8.0	125	151
11,000	-25	-13	19.5	51	8.5	133	151	-5	23	18.5	49	8.2	129	152	15	59	19.5	47	7.8	124	152
12,000	-27	-17	18.8	49	8.2	130	150	-7	19	18.8	47	7.8	125	151	13	55	18.8	46	7.7	121	151
13,000	-29	-20	18.0	47	7.8	127	148	-9	16	18.0	46	7.7	122	149	11	52	18.0	44	7.3	117	149
14,000	-31	-24	17.3	45	7.5	123	147	-11	12	17.3	44	7.3	119	147	9	48	17.3	42	7.0	114	147
15,000	-33	-27	16.7	44	7.3	120	145	-13	9	16.7	42	7.0	115	145	7	45	16.7	41	6.8	110	144
16,000	-35	-31	16.0	42	7.0	116	143	-15	5	16.0	40	6.7	111	143	5	41	16.0	39	6.5	106	142

- NOTES: 1. Full throttle manifold pressure settings are approximate.
 2. Shaded area represents operation with full throttle.
 3. Lean to 25° - 50°F on rich side of peak EGT.
 4. Cruise speeds are presented at an average weight of 3600 lbs.

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BEECHCRAFT
Duchess 76

Section V
Performance

ECONOMY CRUISE POWER - 18.0 IN. HG @ 2100 RPM (OR FULL THROTTLE)

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PRESS ALT	ISA -20°C (-36°F)								STANDARD DAY (ISA)								ISA +20°C (+36°F)							
	IOAT		MAN. PRESS.	FUEL FLOW/ ENG		IAS	TAS	IOAT		MAN. PRESS.	FUEL FLOW/ ENG		IAS	TAS	IOAT		MAN. PRESS.	FUEL FLOW/ ENG		IAS	TAS			
	°C	°F	IN.HG	PPH	GPH	KTS	KTS	°C	°F	IN.HG	PPH	GPH	KTS	KTS	°C	°F	IN.HG	PPH	GPH	KTS	KTS			
SL	-4	25	18.0	29	4.8	104	101	16	61	18.0	28	4.7	99	100	36	97	18.0	27	4.5	96	98			
1000	-6	21	18.0	30	5.0	106	105	14	57	18.0	29	4.8	101	104	34	93	18.0	28	4.7	95	102			
2000	-8	18	18.0	31	5.2	107	108	12	54	18.0	30	5.0	103	107	32	90	18.0	29	4.8	98	106			
3000	-10	14	18.0	32	5.3	109	112	10	50	18.0	31	5.2	105	111	30	86	18.0	30	5.0	101	110			
4000	-12	11	18.0	34	5.7	111	115	8	47	18.0	32	5.3	107	115	28	83	18.0	31	5.2	103	113			
5000	-14	8	18.0	35	5.8	112	119	6	43	18.0	33	5.5	108	118	26	79	18.0	32	5.3	103	117			
6000	-16	4	18.0	36	6.0	113	121	5	40	18.0	35	5.8	109	121	25	76	18.0	33	5.5	105	120			
7000	-17	1	18.0	37	6.2	115	125	3	37	18.0	36	6.0	110	124	23	73	18.0	34	5.7	106	124			
8000	-19	-3	18.0	38	6.3	116	128	1	33	18.0	37	6.2	111	127	21	69	18.0	35	5.8	106	127			
9000	-21	-6	18.0	39	6.5	117	131	-1	30	18.0	38	6.3	112	130	19	66	18.0	36	6.0	108	130			
10,000	-23	-10	18.0	40	6.7	117	134	-3	26	18.0	39	6.5	113	134	17	62	18.0	37	6.2	108	133			
11,000	-25	-13	18.0	41	6.8	117	136	-5	23	18.0	39	6.5	113	136	15	59	18.0	38	6.3	108	135			
12,000	-27	-17	18.0	41	6.8	117	138	-7	19	18.0	40	6.7	113	138	13	55	18.0	38	6.3	108	137			
13,000	-29	-20	18.0	42	7.0	117	140	-9	16	18.0	41	6.8	113	140	11	52	18.0	39	6.6	108	139			
14,000	-31	-24	17.3	43	7.2	117	142	-11	12	17.3	41	6.8	112	142	9	48	17.3	40	6.7	108	141			
15,000	-33	-27	16.5	41	6.8	114	140	-13	9	16.5	40	6.7	109	140	7	45	16.5	38	6.3	105	138			
16,000	-35	-31	15.8	39	6.5	110	138	-15	5	15.8	38	6.3	106	137	5	41	15.8	37	6.2	101	135			

January 1982

Section V
Performance

BEECHCRAFT
Duchess 76

- NOTES: 1. Full throttle manifold pressure settings are approximate.
 2. Shaded area represents operation with full throttle.
 3. Lean to 25° - 50°F on rich side of peak EGT.
 4. Cruise speeds are presented at an average weight of 3600 lbs.

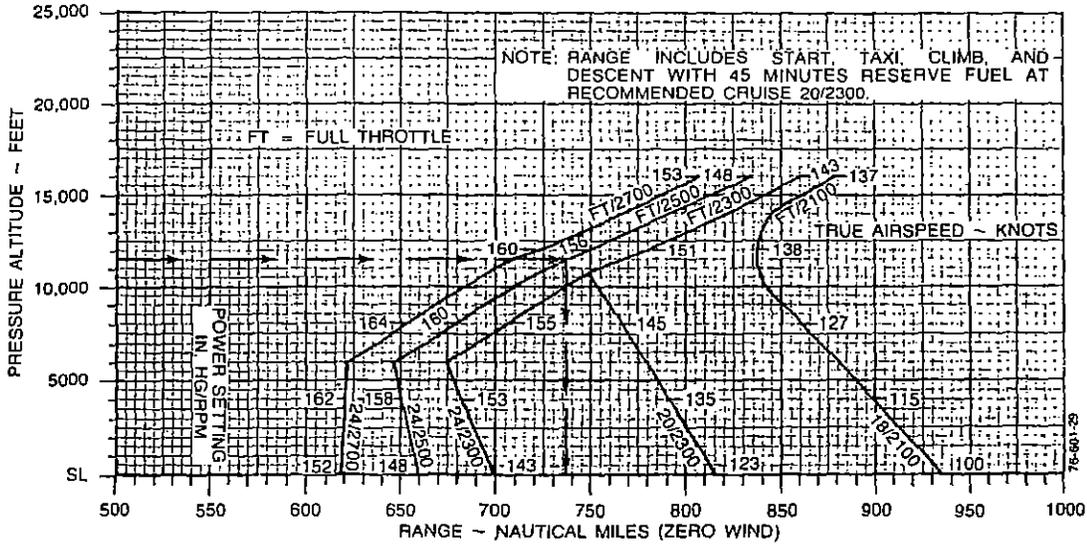
RANGE PROFILE - 100 GALLONS STANDARD DAY (ISA)

ASSOCIATED CONDITIONS:

WEIGHT 3916 LBS BEFORE ENGINE START
 FUEL AVIATION GASOLINE
 FUEL DENSITY 6.0 LBS/GAL
 INITIAL FUEL LOADING 100 US GAL (600 LBS)
 COWL FLAPS CLOSED
 MIXTURE LEANED TO 25°-50°F ON RICH
 SIDE OF PEAK EGT

EXAMPLE:

PRESSURE ALTITUDE 11,500 FT
 POWER SETTING FT/2500 RPM
 RANGE 737 NM



January 1982

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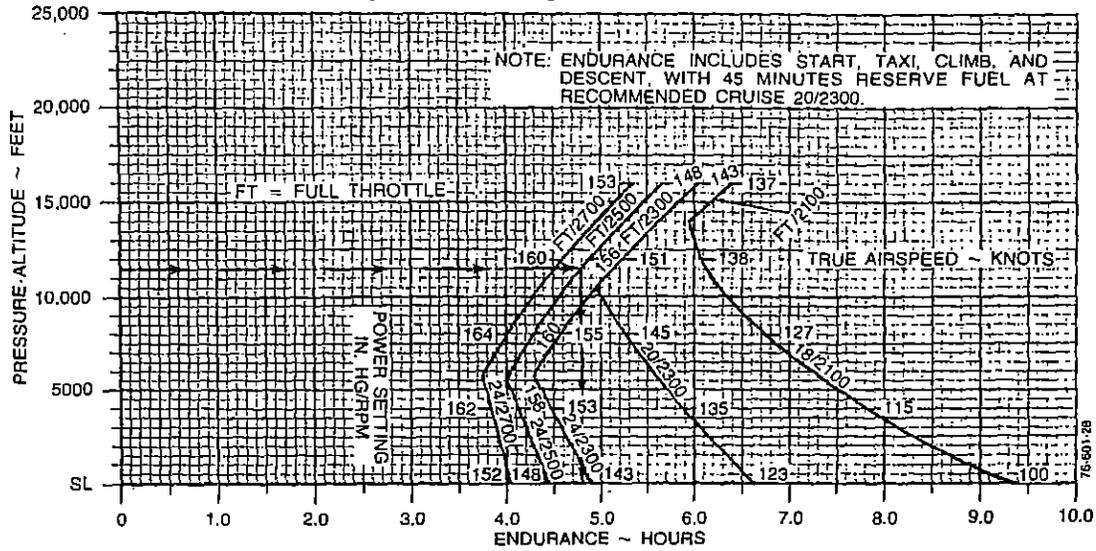
ENDURANCE PROFILE - 100 GALLONS STANDARD DAY (ISA)

ASSOCIATED CONDITIONS:

WEIGHT 3916 LBS BEFORE ENGINE START
 FUEL AVIATION GASOLINE
 FUEL DENSITY 6.0 LBS/GAL
 INITIAL FUEL LOADING 100 US GAL (600 LBS)
 COWL FLAPS CLOSED
 MIXTURE LEANED TO 25°-50°F ON
 RICH SIDE OF PEAK EGT

EXAMPLE:

PRESSURE ALTITUDE 11,500 FT
 POWER SETTING FT/2500
 ENDURANCE 4.8 HRS



**BEECHCRAFT
Duchess 76**

**Section V
Performance**

HOLDING TIME

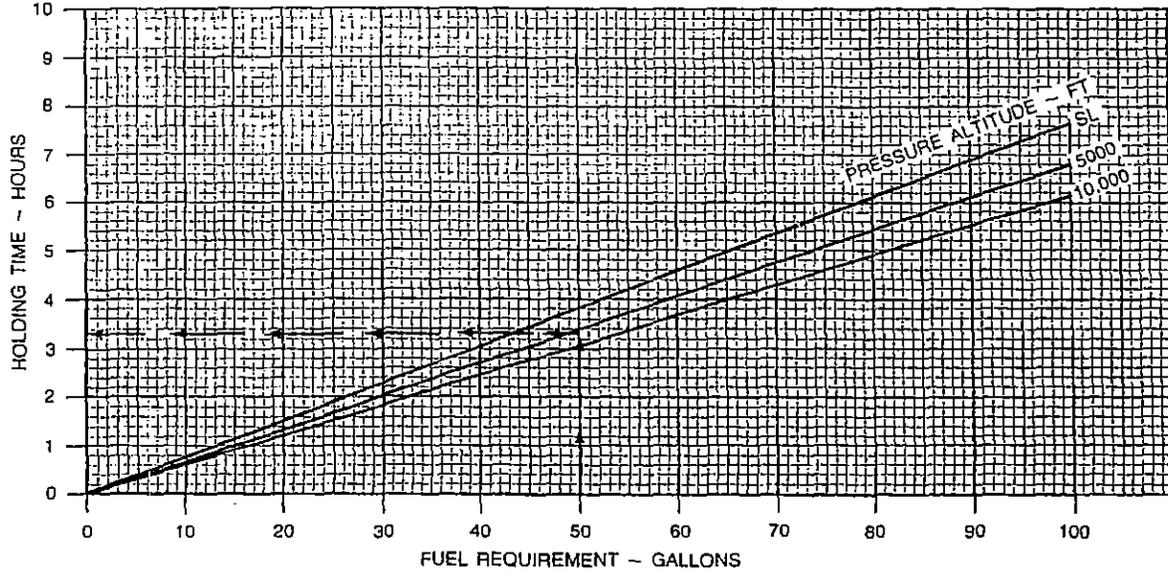
APPLICABLE FOR ALL TEMPERATURES

ASSOCIATED CONDITIONS:

POWER SETTING 20 IN. HG OR FULL THROTTLE
 2300 RPM
 MIXTURE FULL RICH (ABOVE 5000 FT LEAN
 TO 75° - 100°F ON RICH SIDE
 OF PEAK EGT)

EXAMPLE:

FUEL AVAILABLE
 FOR HOLDING 50 GALLONS
 PRESSURE ALTITUDE 6000 FEET
 HOLDING TIME 3.3 HOURS



91-109-97

**BEECHCRAFT
Duchess 76**

**Section V
Performance**

TIME, FUEL, AND DISTANCE TO DESCEND

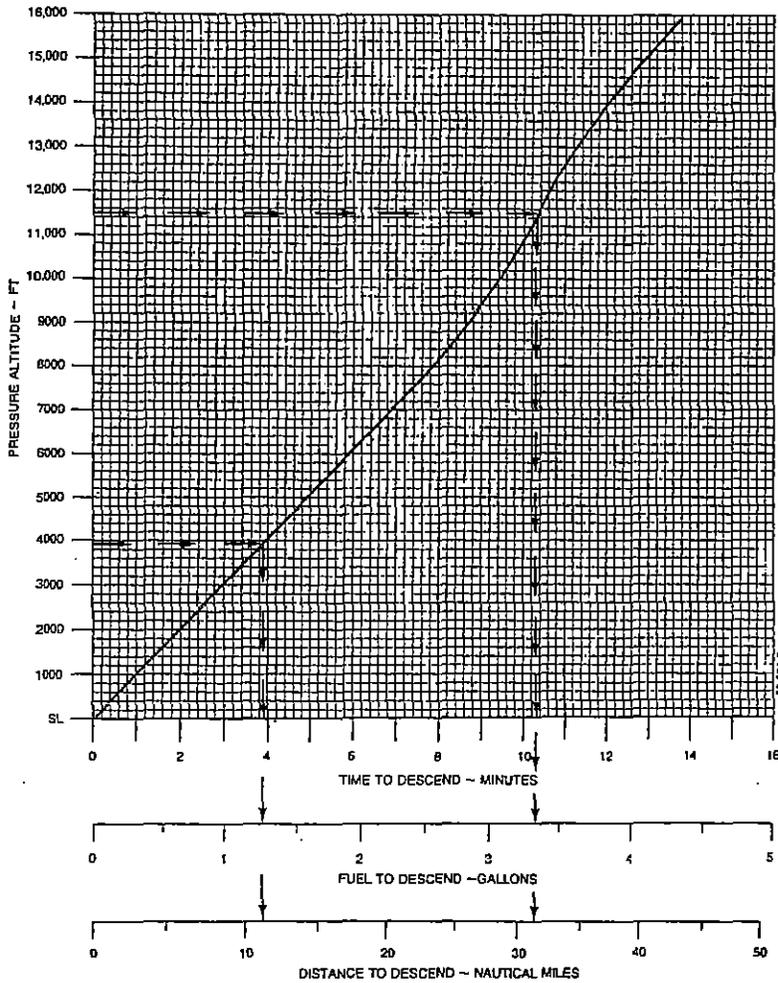
DESCENT SPEED - 170 KNOTS

ASSOCIATED CONDITIONS:

POWER..... AS REQUIRED TO MAINTAIN
1000 FT/MIN RATE OF DESCENT
LANDING GEAR..... UP
FLAPS..... UP
MIXTURE..... FULL RICH (ABOVE 5000 FT LEAN TO
75° - 100°F ON RICH SIDE OF PEAK EGT)

EXAMPLE:

INITIAL ALTITUDE..... 11,500 FT
FINAL ALTITUDE..... 3965 FT
TIME TO DESCEND..... 10 - 4 = 8 MINUTES
FUEL TO DESCEND..... 3.4 - 1.3 = 2.1 GAL
DISTANCE TO DESCEND..... 32 - 11 = 21 NM



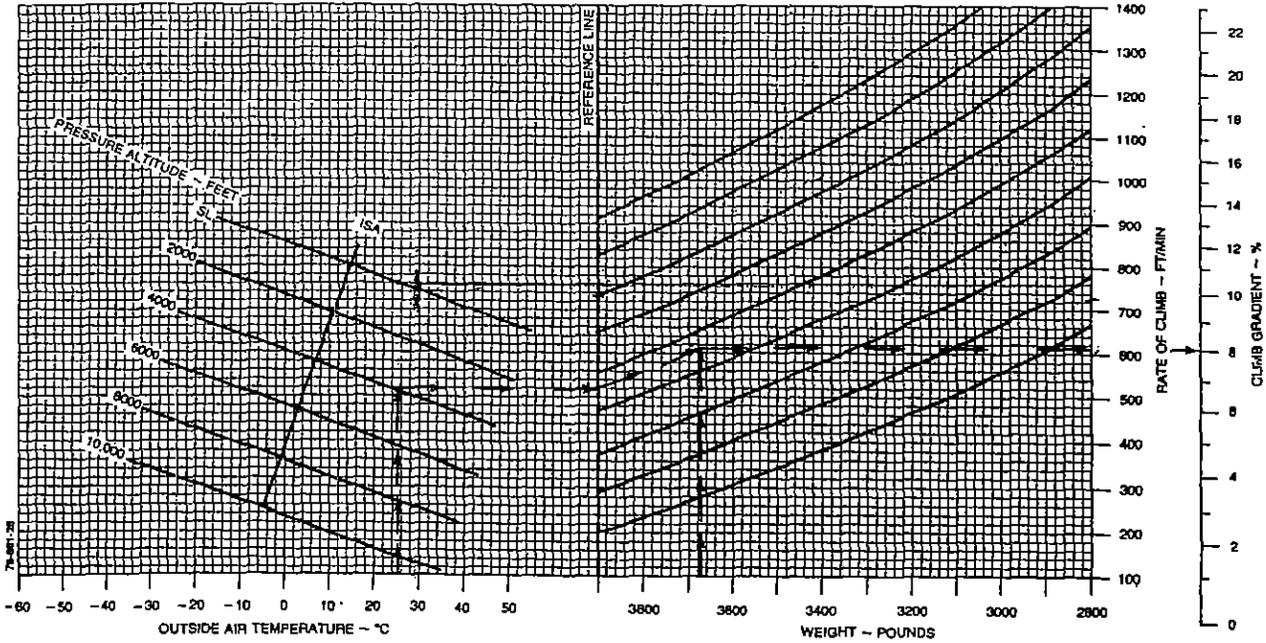
ASSOCIATED CONDITIONS:

POWER TAKE-OFF AT 2700 RPM
 FLAPS DOWN (DN)
 LANDING GEAR DOWN
 MIXTURE FULL RICH (ABOVE 5000 FT
 LEAN TO 75° - 100°F ON RICH
 SIDE OF PEAK EGT)

CLIMB - BALKED LANDING
CLIMB SPEED 71 KNOTS (ALL WEIGHTS)

EXAMPLE:

OAT 25°C
 PRESSURE ALTITUDE 3965 FT
 WEIGHT 3677 LBS.
 RATE OF CLIMB 510 FT/MIN
 CLIMB GRADIENT 8%



Section V
Performance

BEECHCRAFT
Duchess 76

LANDING DISTANCE - FLAPS UP
APPROACH SPEED 87 KNOTS (ALL WEIGHTS)

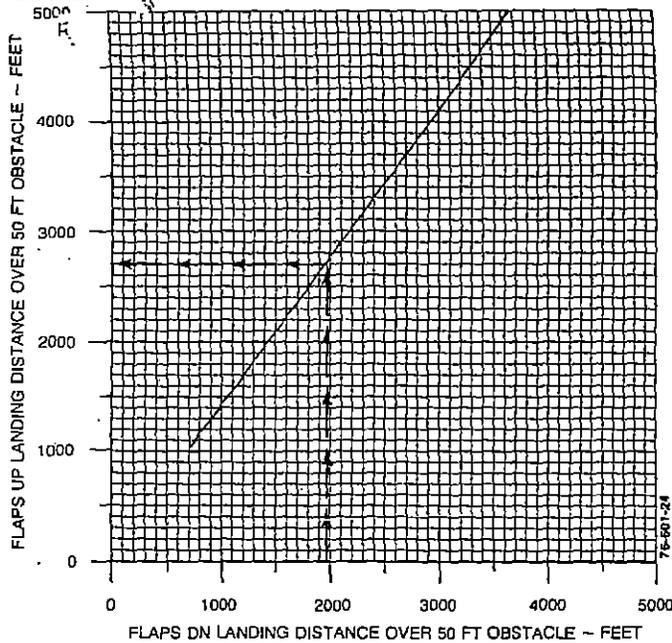
ASSOCIATED CONDITIONS:

POWER..... RETARD TO MAINTAIN
600 FT/MIN ON FINAL
APPROACH
FLAPS..... UP
LANDING GEAR..... DOWN
RUNWAY..... PAVED, LEVEL,
DRY SURFACE
APPROACH SPEED..... 87 KNOTS IAS
BRAKING..... MAXIMUM

EXAMPLE:

FLAPS DN LANDING
DISTANCE OVER
50 FT OBSTACLE 1970 FT
FLAPS UP LANDING
DISTANCE OVER
50 FT OBSTACLE..... 2700 FT
APPROACH SPEED..... 87 KTS

- NOTE: 1. LANDING WITH FLAPS FULL DOWN IS NORMAL PROCEDURE. USE THIS GRAPH WHEN IT IS NECESSARY TO LAND WITH FLAPS UP.
2. TO DETERMINE FLAPS UP LANDING DISTANCE, READ FROM THE LANDING DISTANCE - FLAPS DOWN GRAPH, THE LANDING DISTANCE APPROPRIATE TO OAT, ALTITUDE, WIND, AND 50 FT OBSTACLE. ENTER THIS GRAPH WITH DERIVED AND READ FLAPS UP LANDING DISTANCE.



LANDING DISTANCE - GRASS SURFACE - FLAPS DOWN (DN)

APPROACH SPEED 76 KTS (ALL WEIGHTS)

ASSOCIATED CONDITIONS:

POWER RETARD TO MAINTAIN 600 FT/MIN
 ON FINAL APPROACH
 FLAPS DOWN (DN)
 LANDING GEAR ... DOWN
 RUNWAY SHORT, DRY, GRASS
 APPROACH
 SPEED 76 KTS
 BRAKING MAXIMUM

EXAMPLE:

OAT 25°C
 PRESSURE ALTITUDE 3965 FT
 HEADWIND COMPONENT 9.5 KTS
 GROUND ROLL 1250 FT
 TOTAL OVER 50 FT OBSTACLE 2150 FT
 APPROACH SPEED 76 KTS

