

# Pilot's Operating Handbook (POH)

## • Part 2 - Appendix •

### Lockheed C-141A/B/C Starlifter

Lowcost payware for X-Plane version 8.40 and 8.50.

First release 28th May 2005

Last update 05th October 2006

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<http://www.x-plane.org/home/Caboclo/Galaxy/index.html>



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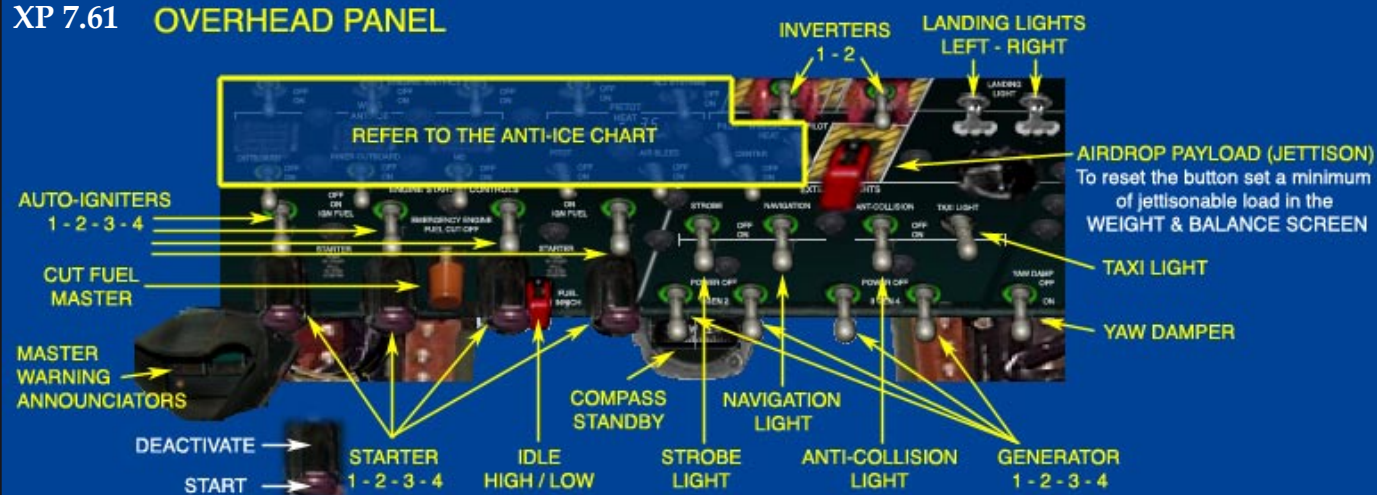
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## Figures of the real C-141A/B/C

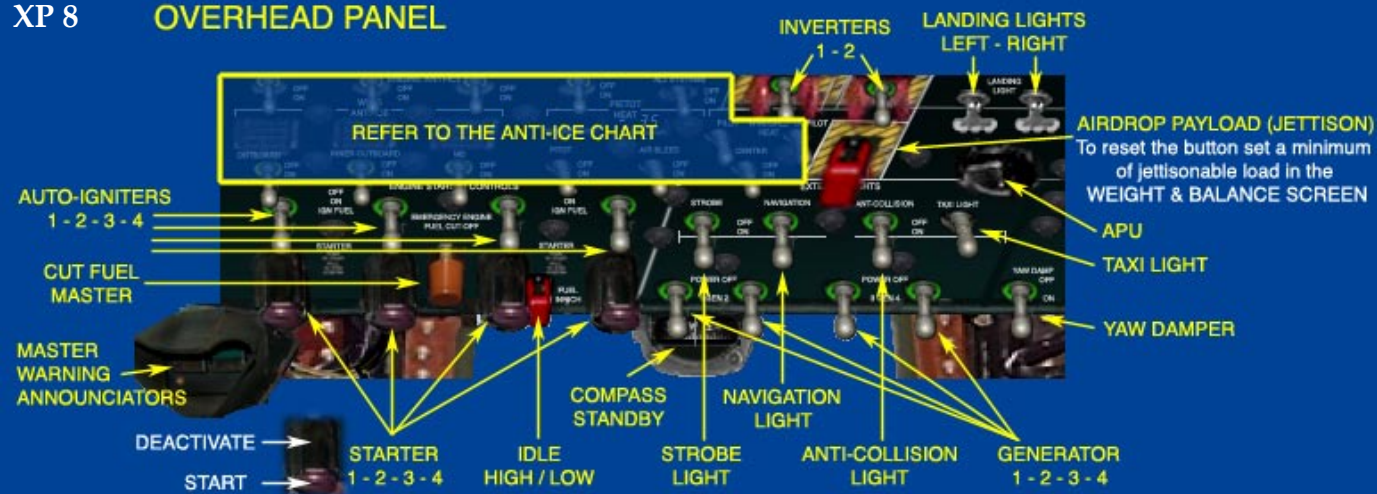
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# Panels of the C-141A/B/C in x-plane

## XP 7.61 OVERHEAD PANEL



## XP 8 OVERHEAD PANEL



## ANTI-ICE XP 7.61



## ANTI-ICE XP 8





# Landing Gear Indication and Lever

## C-141A/B/C

No indication  
(Battery Power Off)



All Gears DOWN  
and Boggies arrested



All Gears  
and Boggies UP



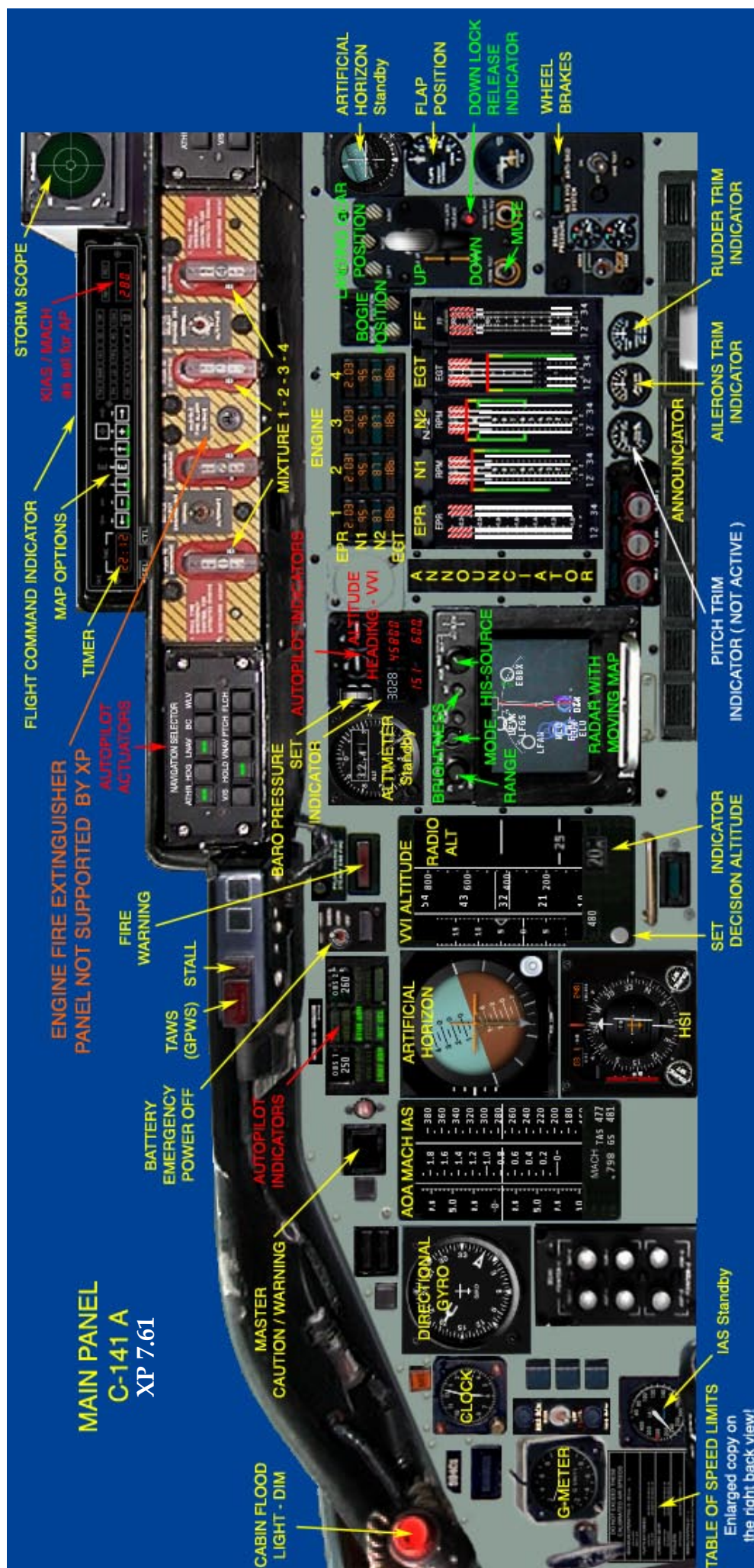
All Gears and Boggies in  
Transition (or not locked)



All Gears DOWN.  
only left Bogie arrested

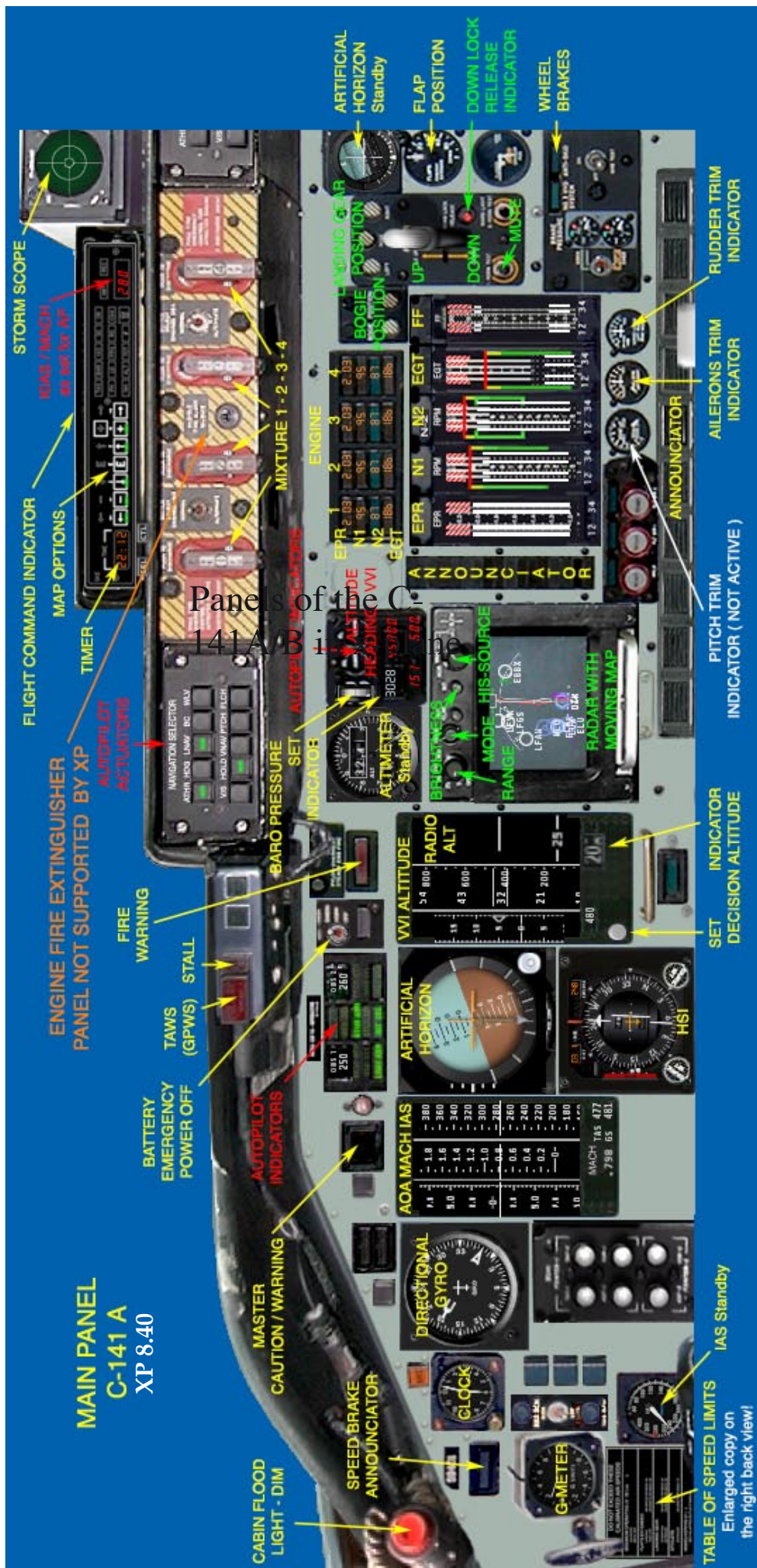


# C-141A/B XP 7.61





C-141A/B  
XP 8.40+









**MAIN PANEL  
C-141C  
XP 7.61**

**ANNUNCIATORS**  
• AP DISCONNECT  
• SPOILERS  
• MASTER CAUTION  
• ENGINE FIRE

**TAWS (GPWS)**  
• SETTINGS (INOPERATIVE)  
• INDICATOR WITHIN PFD

**BATTERY**

**CLOCK**

**CABIN FLOOD LIGHT - DIM**

**DAMU (SEE DETAIL)**

**BRIGHTNESS 1**

**VOR/ADF 1-2 SELECTORS**

**BRIGHTNESS 2**

**BRIGHTNESS 1**

**PRIMARY FLIGHT DISPLAY - PFD (SEE DETAIL)**

**SECONDARY FLIGHT DISPLAY - SFD (SEE DETAIL)**

**DIRECTIONAL GYRO**

**G-METER**

**TABLE OF SPEED LIMITS**  
Enlarged copy on the left rear view!

**ALTITUDE (Standby)**

**BRIGHTNESS 68**

**RANGE**

**MODE**

**RS:SOURCE**

**RADAR MAP**

**ALTIMETER**

**ENGINE**  
1 2 3 4  
MIXTURE 1-2-3-4

**ANNUNCIATORS**

**BOGIE POSITION**  
UP DOWN  
UP DOWN

**LANDING GEAR POSITION**  
UP DOWN  
UP DOWN

**FLAP POSITION**  
UP DOWN  
UP DOWN

**DOWN-LOCK RELEASE**

**WHEEL BRAKES**

**RUDDER TRIM INDICATOR**

**AILERONS TRIM INDICATOR**

**PITCH TRIM INDICATOR**

**PITCH INDICATOR IN XP 8 (NOT ACTIVE IN XP 7)**

**ANNUNCIATORS**

**NEEDLE**

**SET DECISION ALTITUDE**

**ENGINE FIRE EXTINGUISHER PANEL NOT SUPPORTED BY XP**

**MAP OPTIONS**

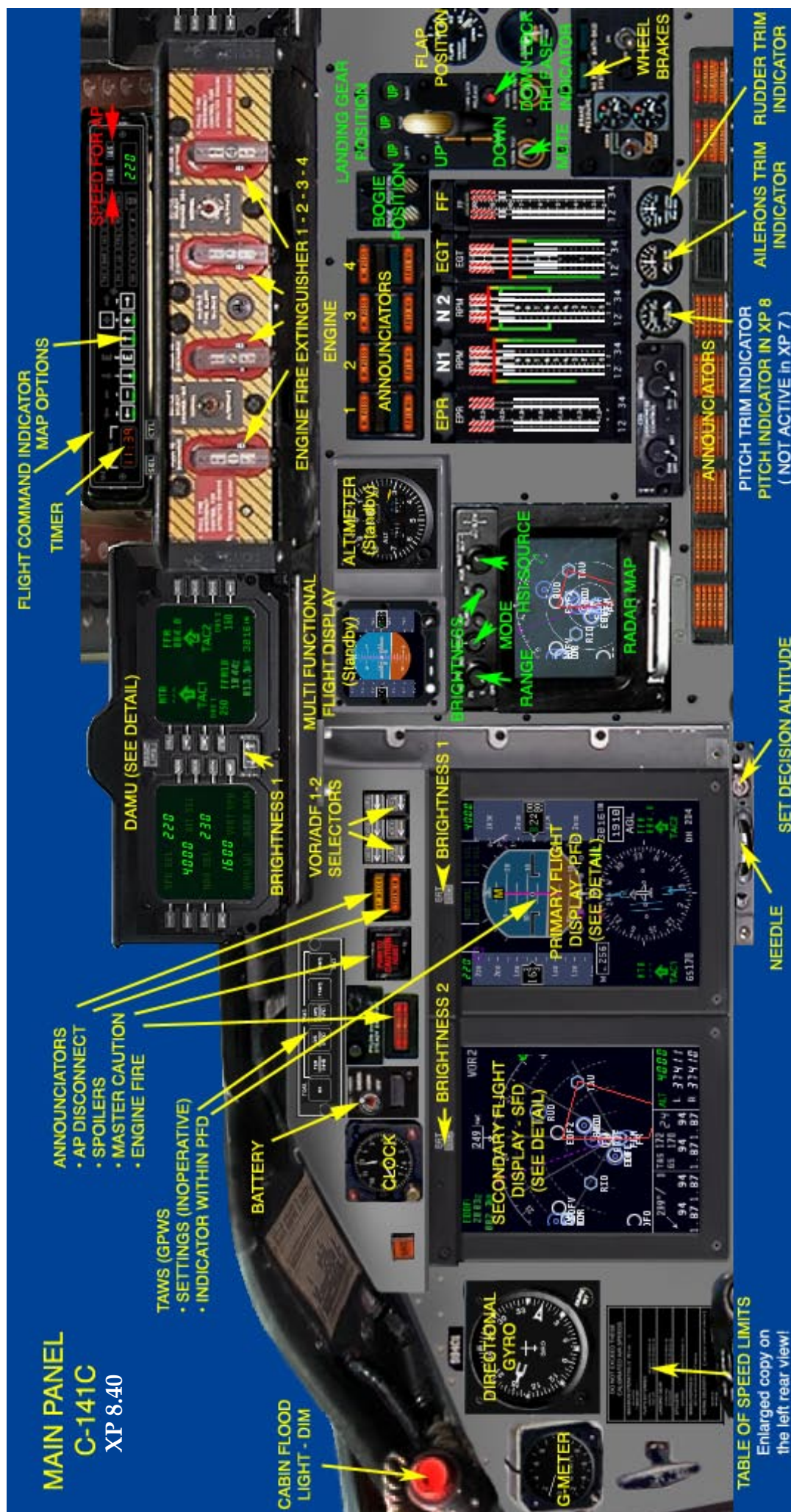
**TIMER**

**FLIGHT COMMAND INDICATOR**

**TABLE OF SPEED LIMITS**  
Enlarged copy on  
the left rear view!



# C-141C XP 8.40+

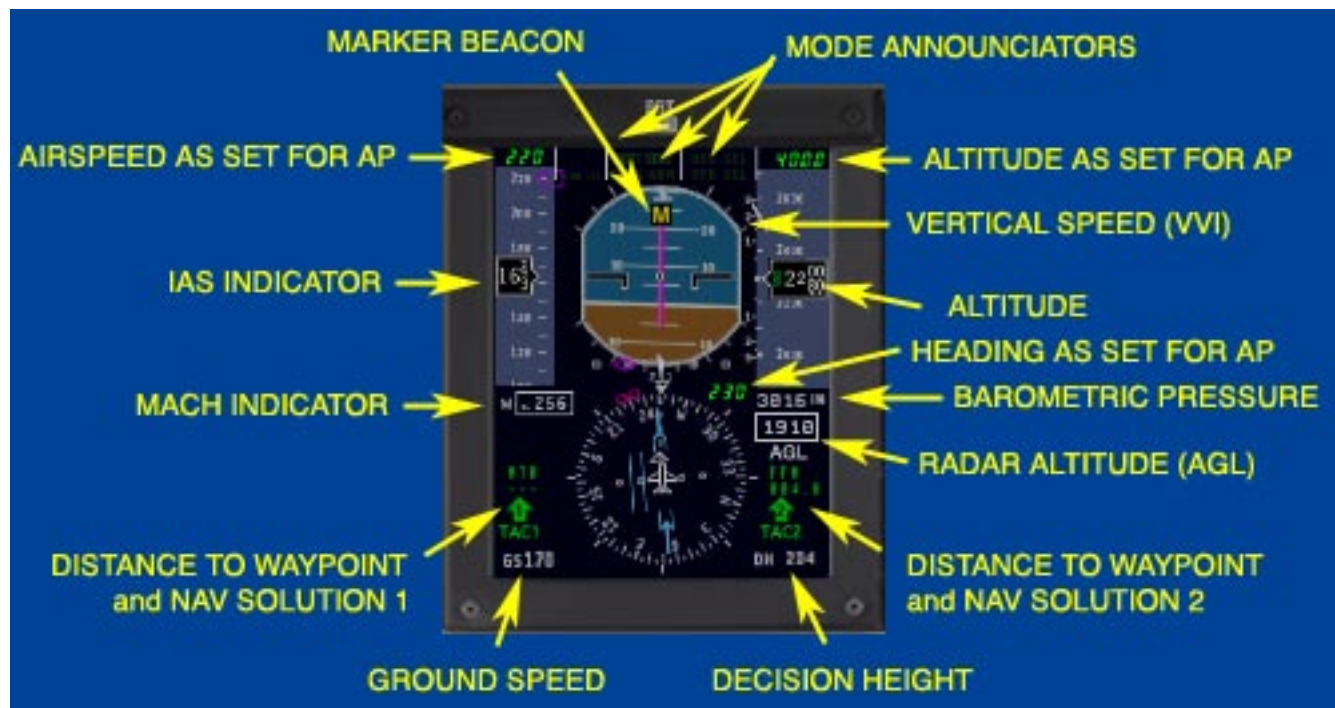


# C-141C • Main Panel Details

## Display Avionics Managent Unit • DAMU



## Primary Flight Display • PFD





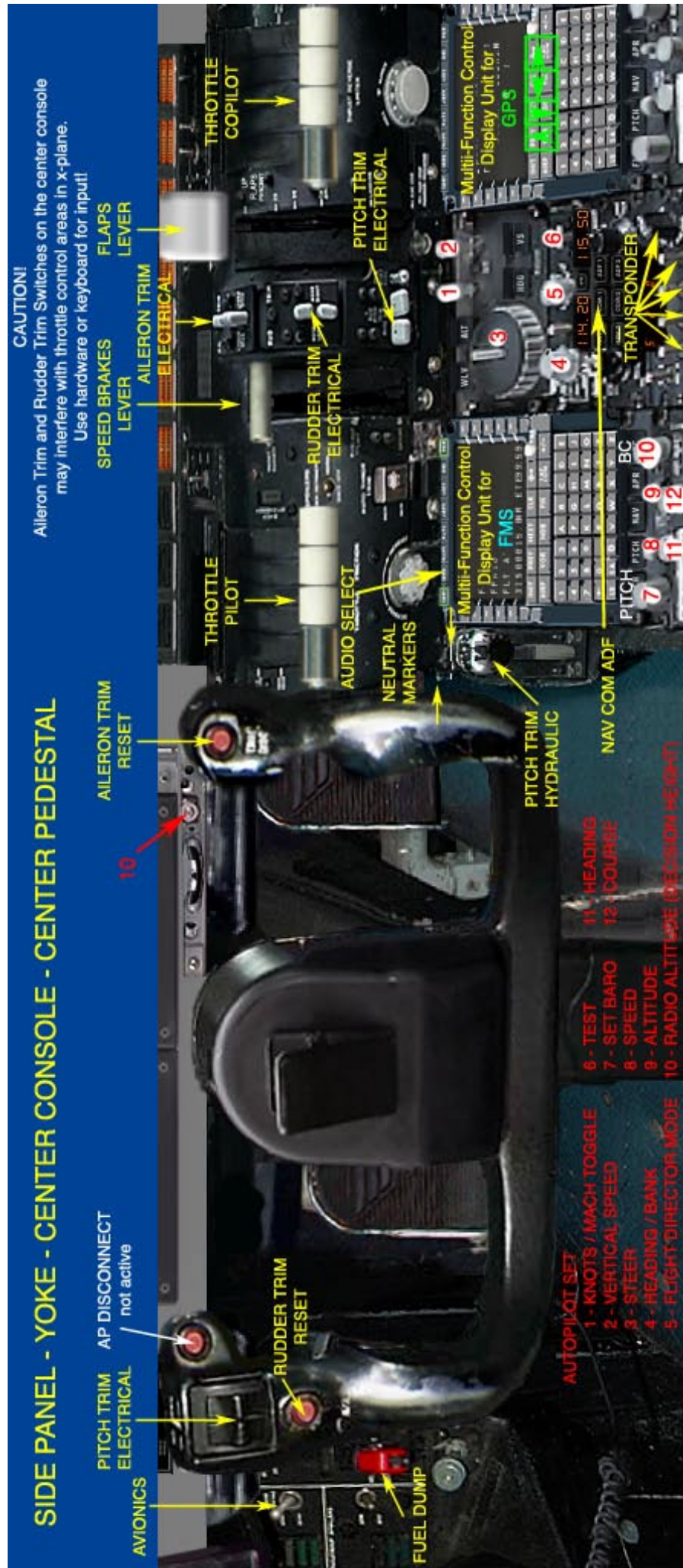
# C-141C • Main Panel Details

## Secondary Flight Display • SFD

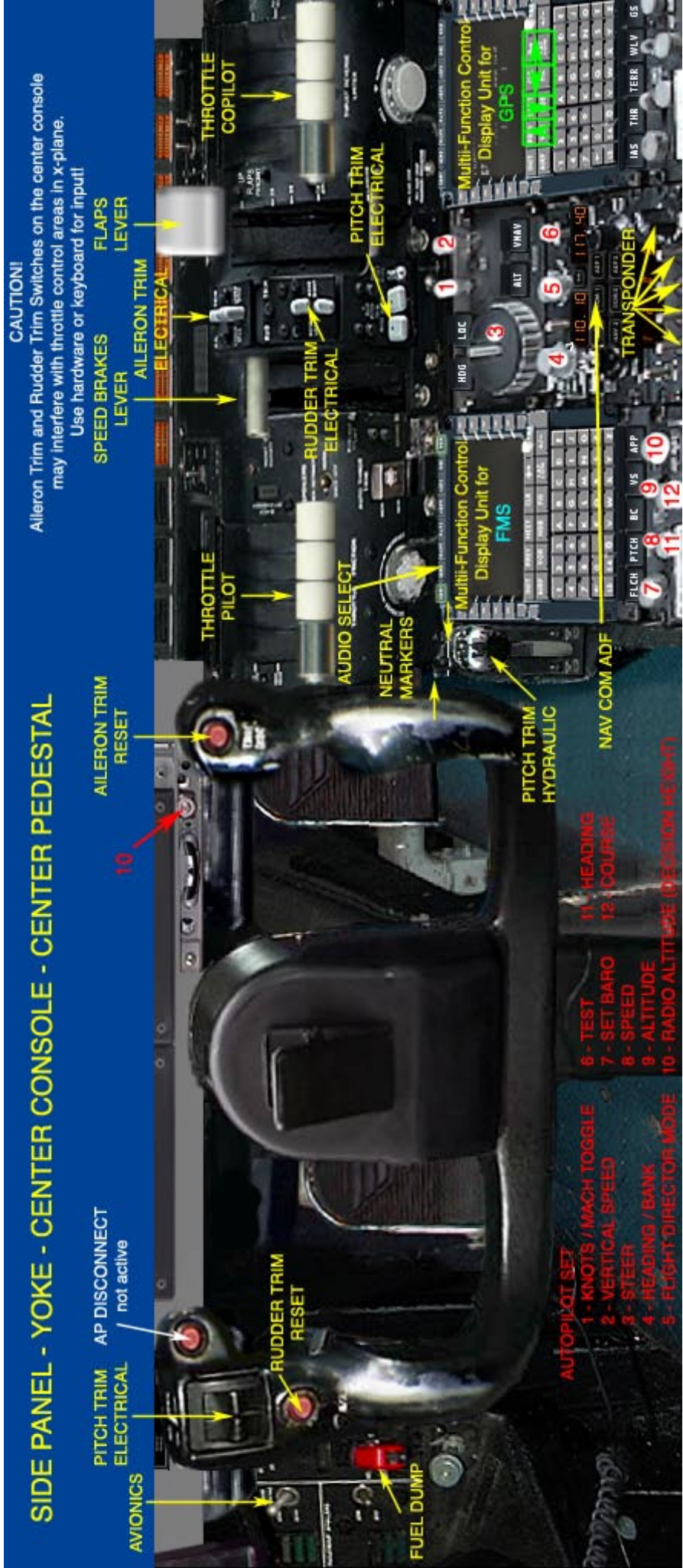


## SECONDARY FLIGHT DISPLAY • MAP MODES









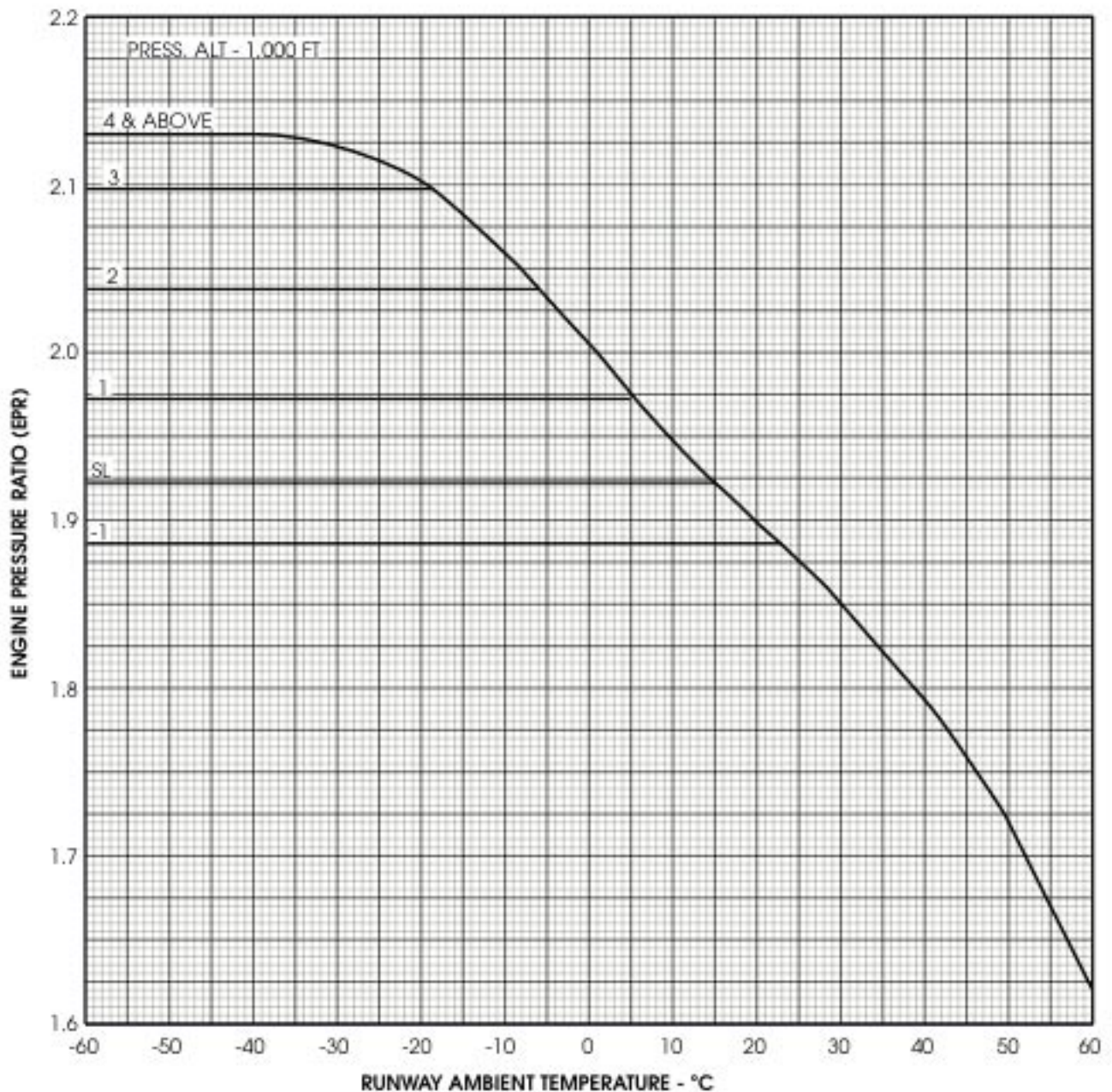
## Charts of the real C-141A/B/C

### PERFORMANCE

#### Take-Off Rated Thrust - EPR Setting

Air Condition + Pressurization ON

1. Static thrust.
2. Reduce EPR setting by:  
Rain removal - on 0.014  
Engine anti-ice - on 0.015
3. If wing anti-ice is required after lift-off, reset the EPR to 0.045 below the computed TRT EPR. Do not use wing anti-ice prior to lift-off.

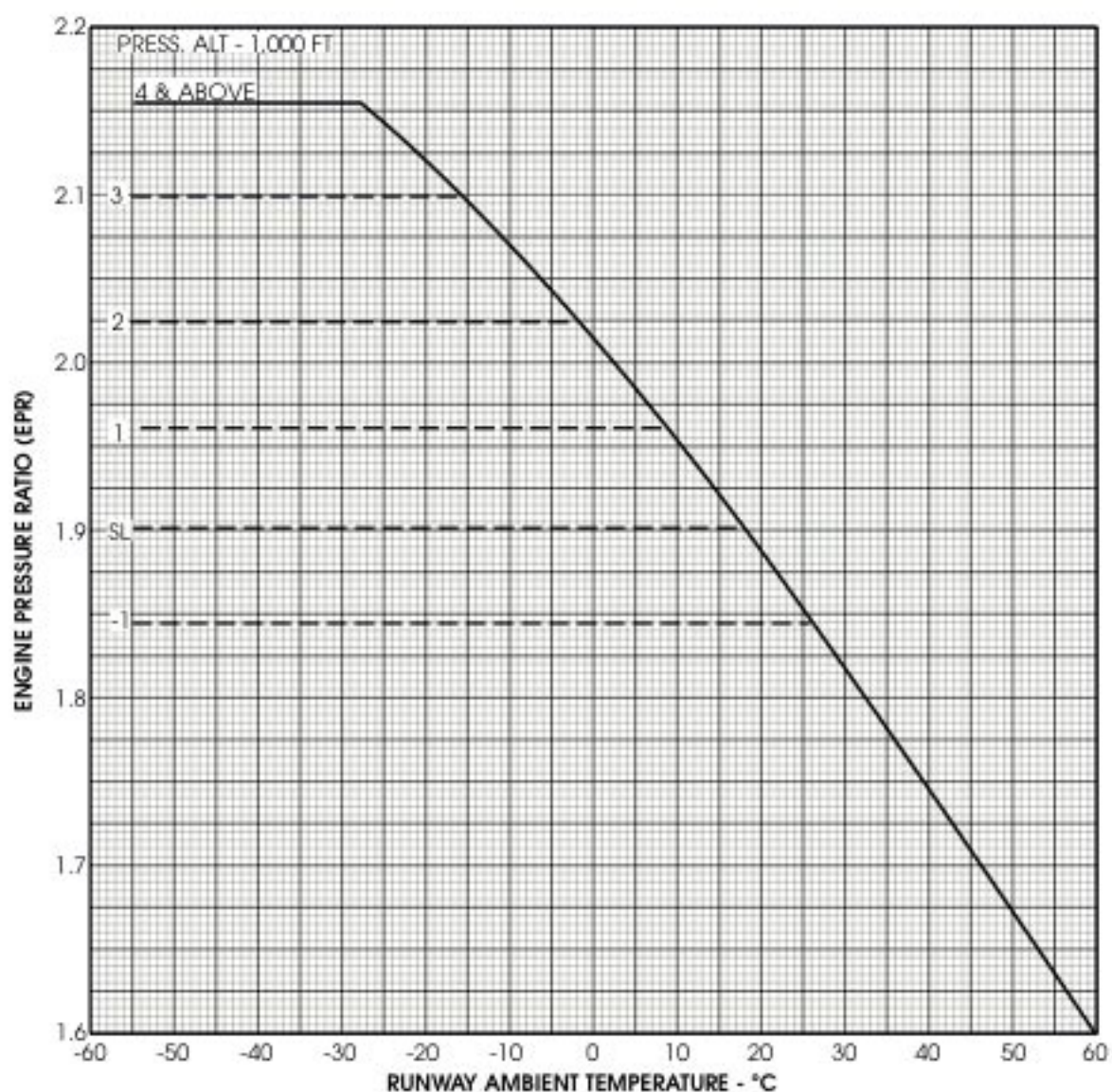




# Go-Around - EPR Setting

Air Condition + Pressurization ON

Four or three engines operating:  
Rain removal - on 0.009  
Engine anti-ice - on 0.013  
Wing anti-ice - on 0.045 (for three engine operation, open the wing isolation valve).



# Military Rated Thrust - EPR Setting

Air Condition + Pressurization ON

710029-01-0000000

Reduce EPR setting by:

4 engine operation

Wing anti-ice on

3 engine operation

Wing anti-ice on

4 & 3 engine operation

Engine anti-ice on

Pressure Altitude 20,000 ft and below	Above 20,000 ft
---	--------------------

0.061

0.061

0.023

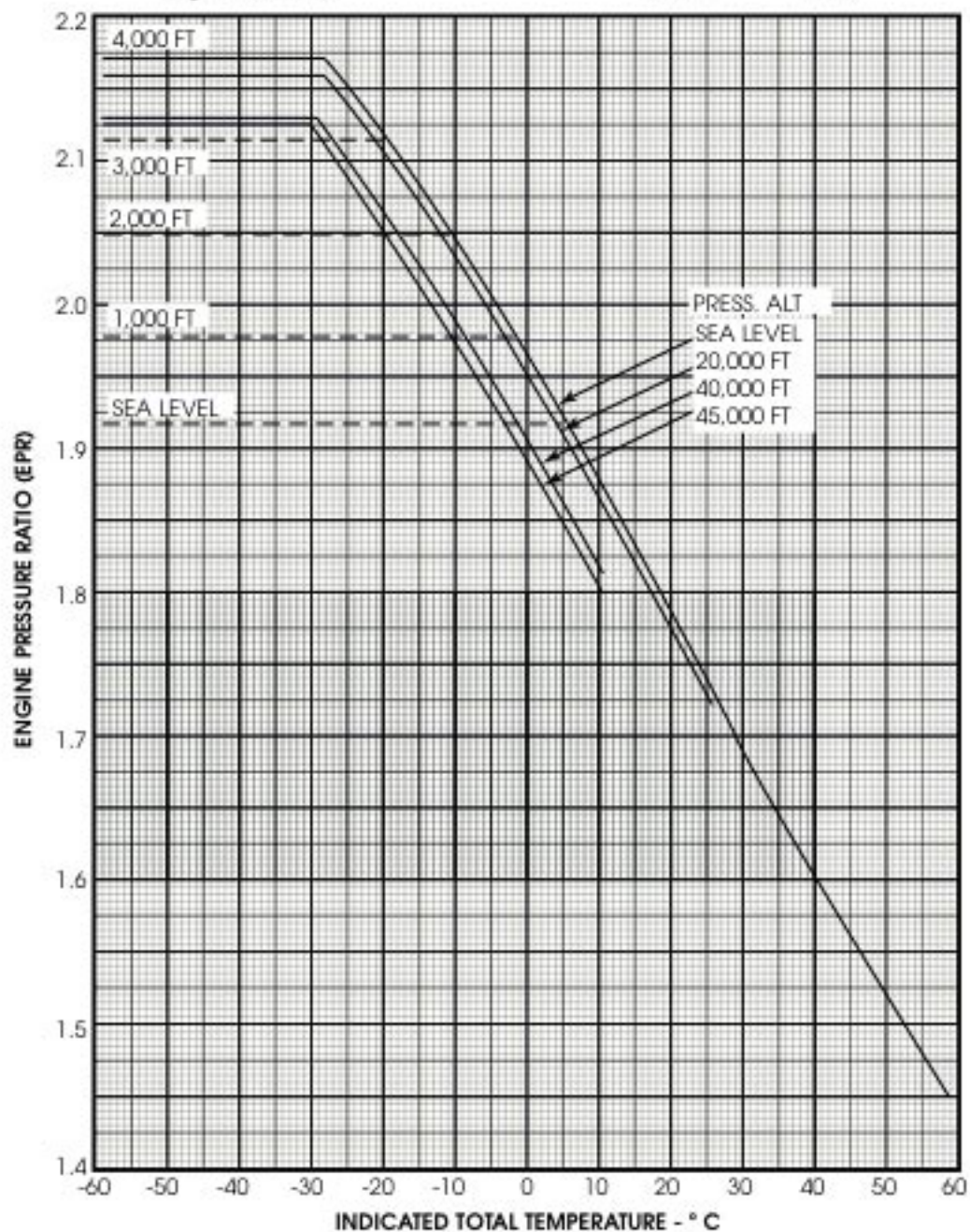
0.043

0.067

0.067

0.045

0.062

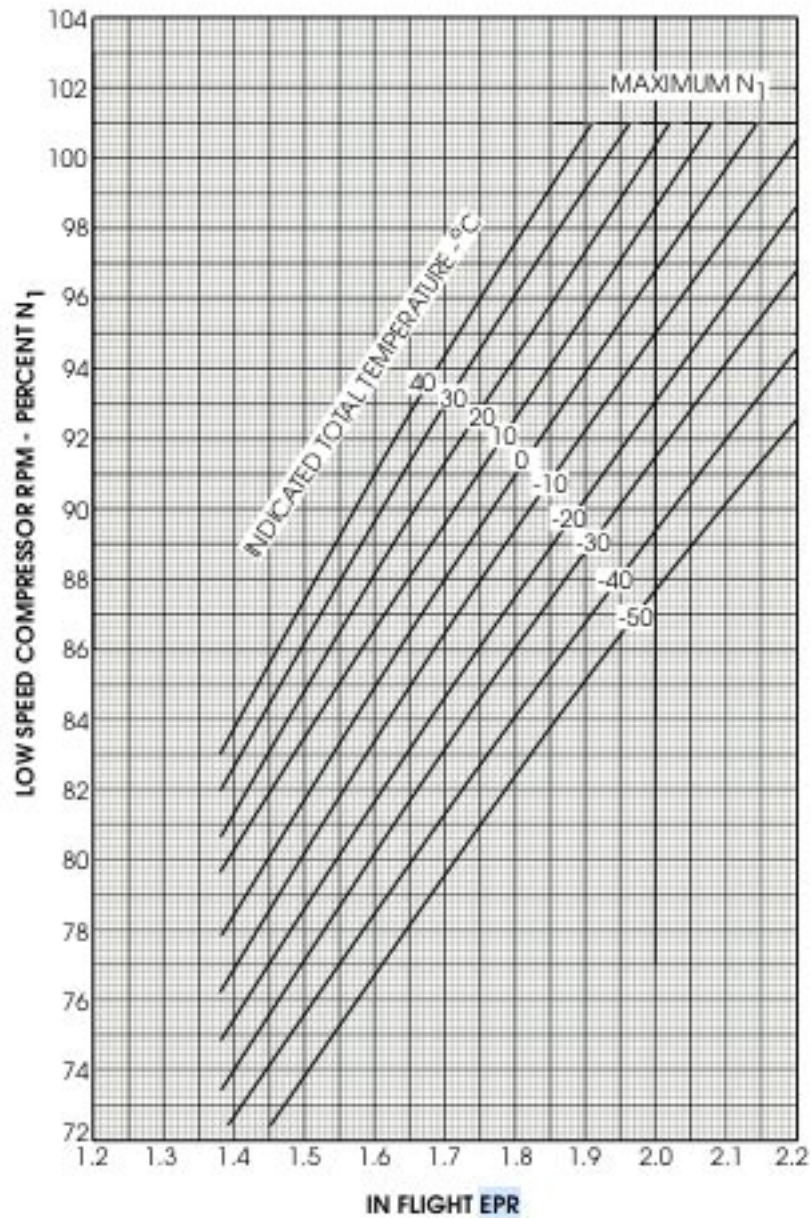




# Low Speed Compressor - Normal Rated Thrust

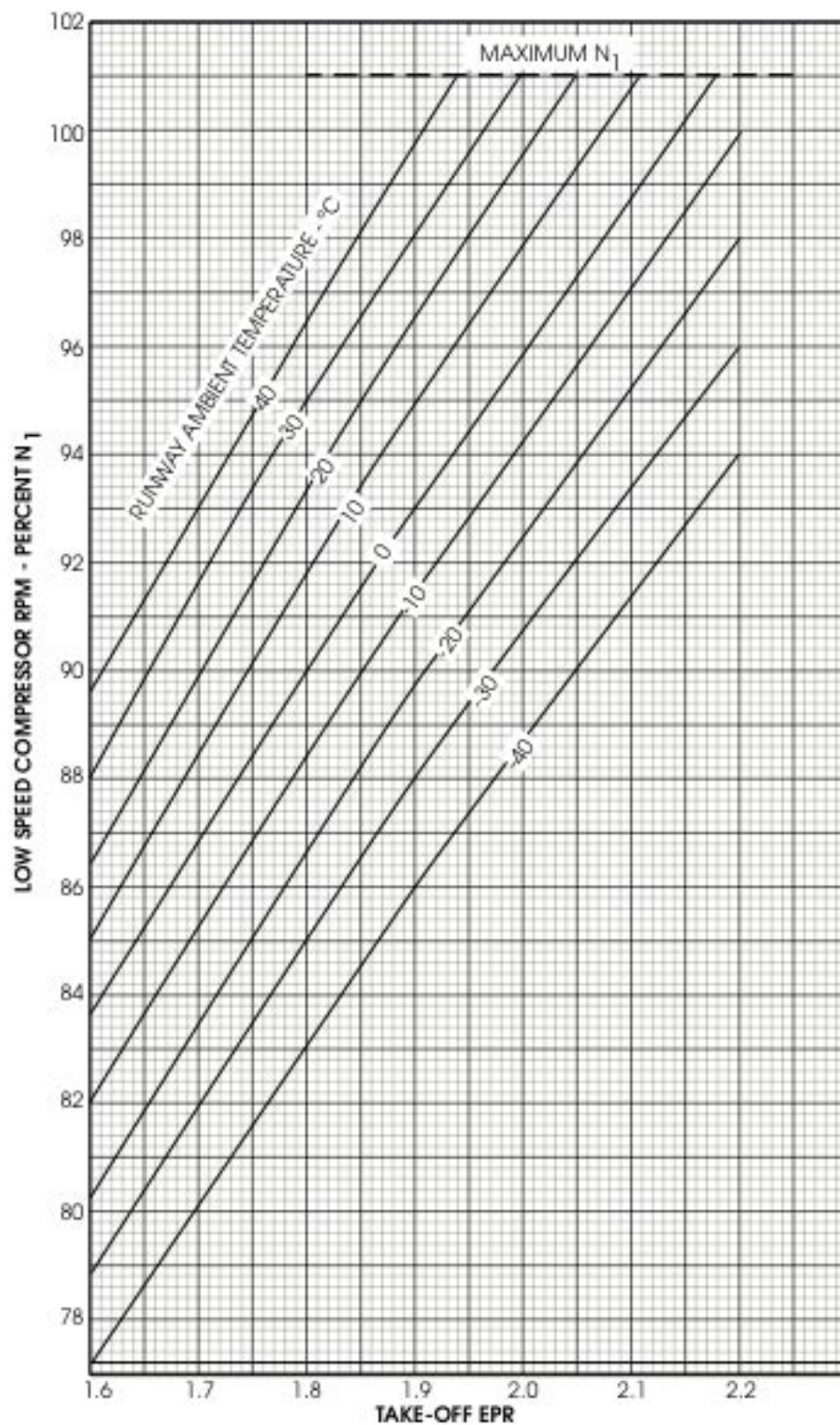
N1 / EPR

This may be used for any  
inflight thrust setting.



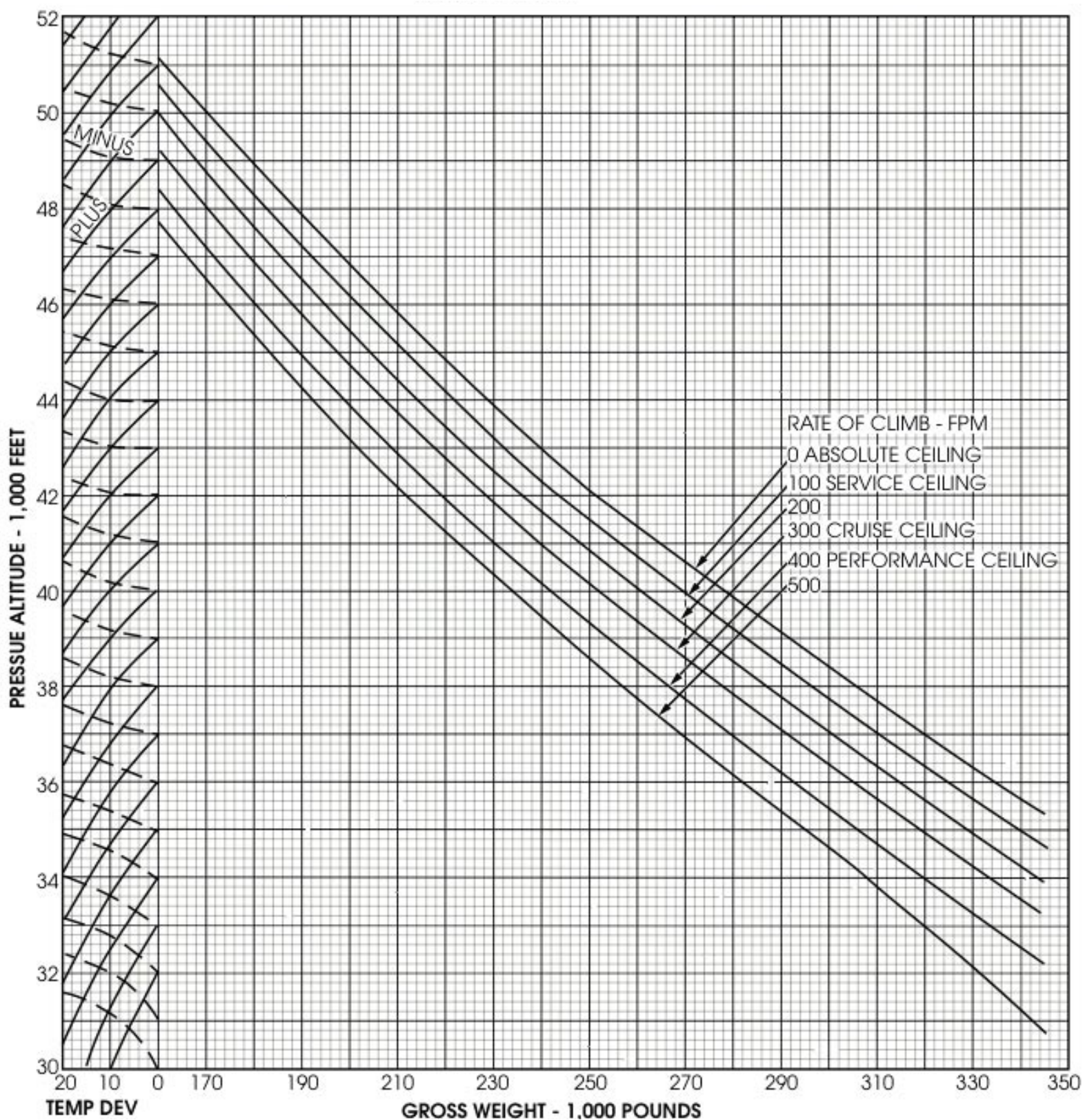
# Low Speed Compressor - Take-Off EPR Setting

Static





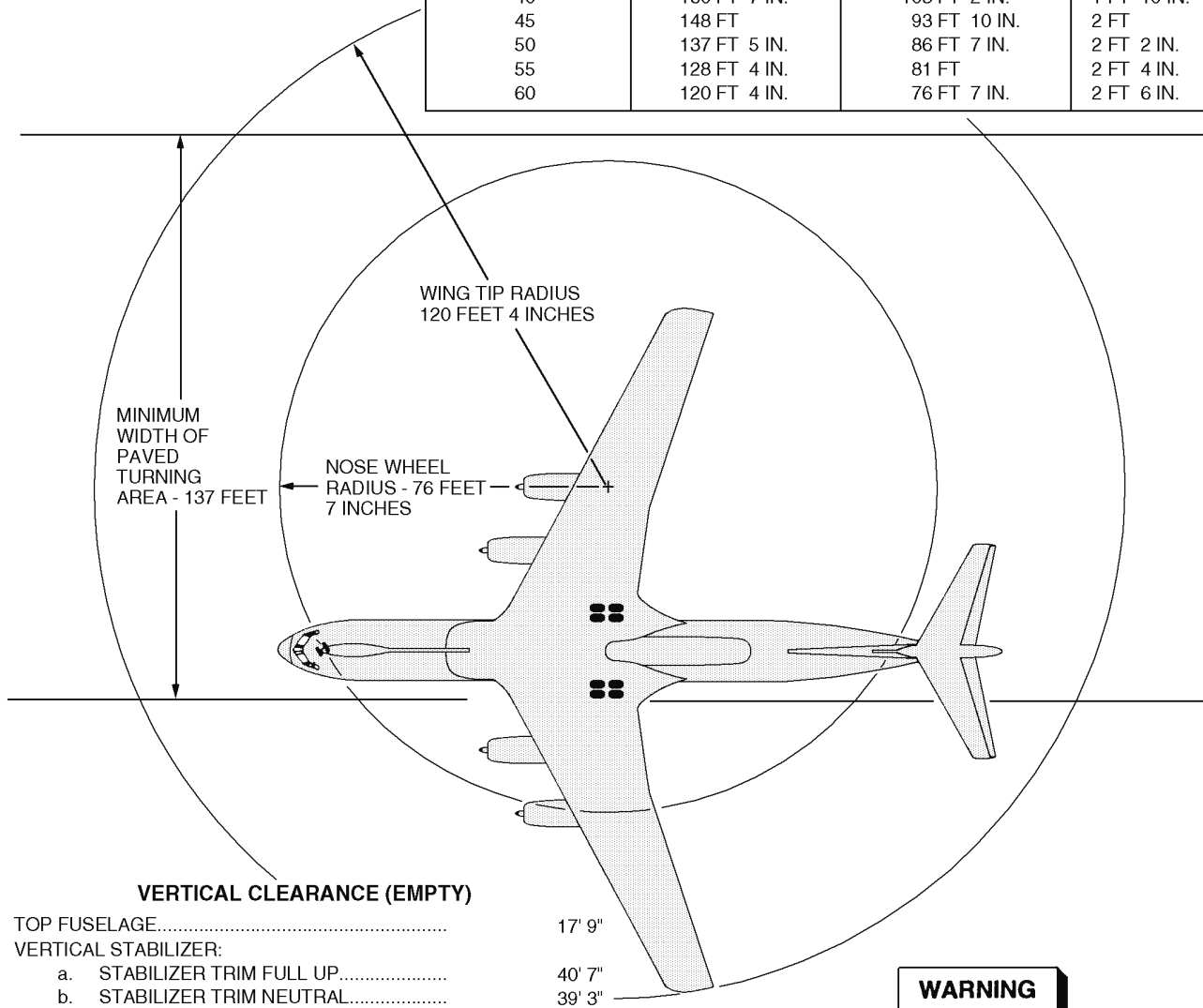
# Ceilings



# PROCEDURES

## Turning Radius and Ground Clearance

NOSE GEAR TURN IN DEGREES	WING TIP RADIUS	NOSE WHEEL RADIUS	WING TIP GROWTH
30	196 FT 1 IN.	132 FT 8 IN.	1 FT 6 IN.
35	176 FT 1 IN.	115 FT 8 IN.	1 FT 8 IN.
40	160 FT 7 IN.	103 FT 2 IN.	1 FT 10 IN.
45	148 FT	93 FT 10 IN.	2 FT
50	137 FT 5 IN.	86 FT 7 IN.	2 FT 2 IN.
55	128 FT 4 IN.	81 FT	2 FT 4 IN.
60	120 FT 4 IN.	76 FT 7 IN.	2 FT 6 IN.



MINIMUM GROUND CLEARANCE	CONDITIONS AND CLEARANCE	
	FULL FUEL LOAD AND MAX AIRCRAFT GROSS WT	EMPTY AIRCRAFT
	MANEUVER LOAD FACTOR 1.0g	MANEUVER LOAD FACTOR 1.0g
WING TIP	8'9"	11'
OUTBOARD NACELLE	3'9"	4'5"
LOWEST POINT OF FUSELAGE (VHF #1 ANTENNA)	8.5"	

### WARNING

Maximum nose wheel deflection is restricted, by stops, to 60 degrees left or right. Forcing nose wheel steering past the 60 degree stops may result in complete loss of nose wheel steering

### CAUTION

Outboard wing tip on sweptwing aircraft "grows" in turns. Deplane Scanner to act as wing walker when clearance is questionable.

**TURNING RADIUS VALID FOR C-141B/C ONLY!**

**The C-141A is by 7.1 meters shorter and therey has a smaller turning radius.**



# Engine Data

ENGINE DATA (3 of 11)

Pressure Altitude	Temp °C	SMOE	TRT - AC & Press OFF		TRT		Go-Around		Reduced		Reverse Limiter
			EPR	TF	EPR	TF	EPR	TF	EPR	TF	
0'	-40		1.95	20.0	1.923	19.6	1.902	19.3	1.78	17.5	1.6
	-35	.909	1.95	20.0	1.923	19.6	1.902	19.3	1.78	17.5	2.2
	-30	.918	1.95	20.0	1.923	19.6	1.902	19.3	1.78	17.5	2.7
	-25	.927	1.95	20.0	1.923	19.6	1.902	19.3	1.78	17.5	3.3
	-20	.937	1.95	20.0	1.923	19.6	1.902	19.3	1.78	17.5	4.0
	-15	.946	1.95	20.0	1.923	19.6	1.902	19.3	1.78	17.5	4.6
	-10	.955	1.95	20.0	1.923	19.6	1.902	19.3	1.78	17.5	5.2
	-5	.964	1.95	20.0	1.923	19.6	1.902	19.3	1.78	17.5	5.9
	0	.973	1.95	20.0	1.923	19.6	1.902	19.3	1.78	17.5	6.6
	5	.982	1.95	20.0	1.923	19.6	1.902	19.3	1.78	17.5	7.2
	10	.991	1.95	20.0	1.923	19.6	1.902	19.3	1.78	17.5	7.9
	15	1.000	1.948	19.8	1.923	19.6	1.902	19.3	1.78	17.5	8.6
	20	1.009	1.922	19.6	1.898	19.1	1.887	19.1	1.75	17.0	9.1
	25	1.017	1.898	19.1	1.875	18.9	1.854	18.6	1.73	16.7	9.7
	30	1.026	1.874	18.9	1.852	18.6	1.820	18.1	1.71	16.3	10.1
	35	1.035	1.848	18.4	1.825	18.1	1.786	17.5	1.68	15.5	10.5
	40	1.043	1.816	18.0	1.794	17.6	1.750	17.0	1.65	15.3	10.9
	45	1.051	1.778	17.3	1.757	17.0	1.714	16.3	1.61	14.6	10.9
	50	1.059	1.735	16.7	1.717	16.3	1.677	15.7	1.60	14.4	10.9

ENGINE DATA (4 of 11)

Pressure Altitude	Temp °C	SMOE	TRT - AC & Press OFF		TRT		Go-Around		Reduced		Reverse Limiter
			EPR	TF	EPR	TF	EPR	TF	EPR	TF	
500'	-40	.907	1.975	19.9	1.947	19.5	1.932	19.3	1.80	17.5	1.8
	-35	.917	1.975	19.9	1.947	19.5	1.932	19.3	1.80	17.5	2.4
	-30	.927	1.975	19.9	1.947	19.5	1.932	19.3	1.80	17.5	3.0
	-25	.936	1.975	19.9	1.947	19.5	1.932	19.3	1.80	17.5	3.6
	-20	.946	1.975	19.9	1.947	19.5	1.932	19.3	1.80	17.5	4.2
	-15	.955	1.975	19.9	1.947	19.5	1.932	19.3	1.80	17.5	4.9
	-10	.965	1.975	19.9	1.947	19.5	1.932	19.3	1.80	17.5	5.6
	-5	.974	1.975	19.9	1.947	19.5	1.932	19.3	1.80	17.5	6.2
	0	.983	1.975	19.9	1.947	19.5	1.932	19.3	1.80	17.5	6.9
	5	.992	1.975	19.9	1.947	19.5	1.932	19.3	1.80	17.5	7.5
	10	1.001	1.975	19.9	1.947	19.5	1.932	19.3	1.80	17.5	8.2
	15	1.010	1.948	19.5	1.923	19.2	1.920	19.2	1.78	17.2	8.8
	20	1.018	1.922	19.2	1.898	18.8	1.887	18.5	1.75	16.7	9.4
	25	1.027	1.898	18.8	1.875	18.5	1.854	18.2	1.73	16.4	9.9
	30	1.035	1.874	18.5	1.852	18.2	1.820	17.8	1.71	16.0	10.3
	35	1.044	1.848	18.1	1.825	17.8	1.786	17.2	1.68	15.6	10.8
	40	1.052	1.816	17.6	1.794	17.3	1.750	16.7	1.65	15.0	10.9
	45	1.061	1.778	17.0	1.757	16.7	1.714	16.0	1.61	14.3	10.9
	50	1.069	1.735	16.4	1.717	16.0	1.677	15.4	1.60	14.2	10.9

## ENGINE DATA (5 of 11)

Pressure Altitude	Temp °C	SMOE	TRT - AC & Press OFF		TRT		Go-Around		Reduced		Reverse Limiter
			EPR	TF	EPR	TF	EPR	TF	EPR	TF	
1,000'	-40	.915	2.000	19.9	1.972	19.5	1.962	19.4	1.83	17.6	2.1
	-35	.925	2.000	19.9	1.972	19.5	1.962	19.4	1.83	17.6	2.6
	-30	.935	2.000	19.9	1.972	19.5	1.962	19.4	1.83	17.6	3.2
	-25	.945	2.000	19.9	1.972	19.5	1.962	19.4	1.83	17.6	3.9
	-20	.955	2.000	19.9	1.972	19.5	1.962	19.4	1.83	17.6	4.5
	-15	.964	2.000	19.9	1.972	19.5	1.962	19.4	1.83	17.6	5.2
	-10	.974	2.000	19.9	1.972	19.5	1.962	19.4	1.83	17.6	5.9
	-5	.983	2.000	19.9	1.972	19.5	1.962	19.4	1.83	17.6	6.5
	0	.992	2.000	19.9	1.972	19.5	1.962	19.4	1.83	17.6	7.2
	5	1.001	2.000	19.9	1.972	19.5	1.962	19.4	1.83	17.6	7.8
	10	1.010	1.975	19.5	1.950	19.3	1.951	19.3	1.80	17.1	8.5
	15	1.019	1.948	19.2	1.923	18.9	1.920	18.9	1.78	16.8	9.1
	20	1.028	1.922	18.9	1.898	18.5	1.887	18.3	1.75	16.4	9.6
	25	1.036	1.898	18.5	1.875	18.2	1.854	17.9	1.73	16.1	10.1
	30	1.045	1.874	18.2	1.852	17.9	1.820	17.4	1.71	15.7	10.5
	35	1.054	1.848	17.7	1.825	17.4	1.786	16.8	1.68	15.3	10.8
	40	1.062	1.816	17.3	1.794	17.0	1.750	16.4	1.65	14.8	10.9
	45	1.070	1.778	16.7	1.757	16.4	1.714	15.7	1.61	14.1	10.9
	50	1.079	1.735	16.1	1.717	15.7	1.677	15.1	1.60	13.9	10.9

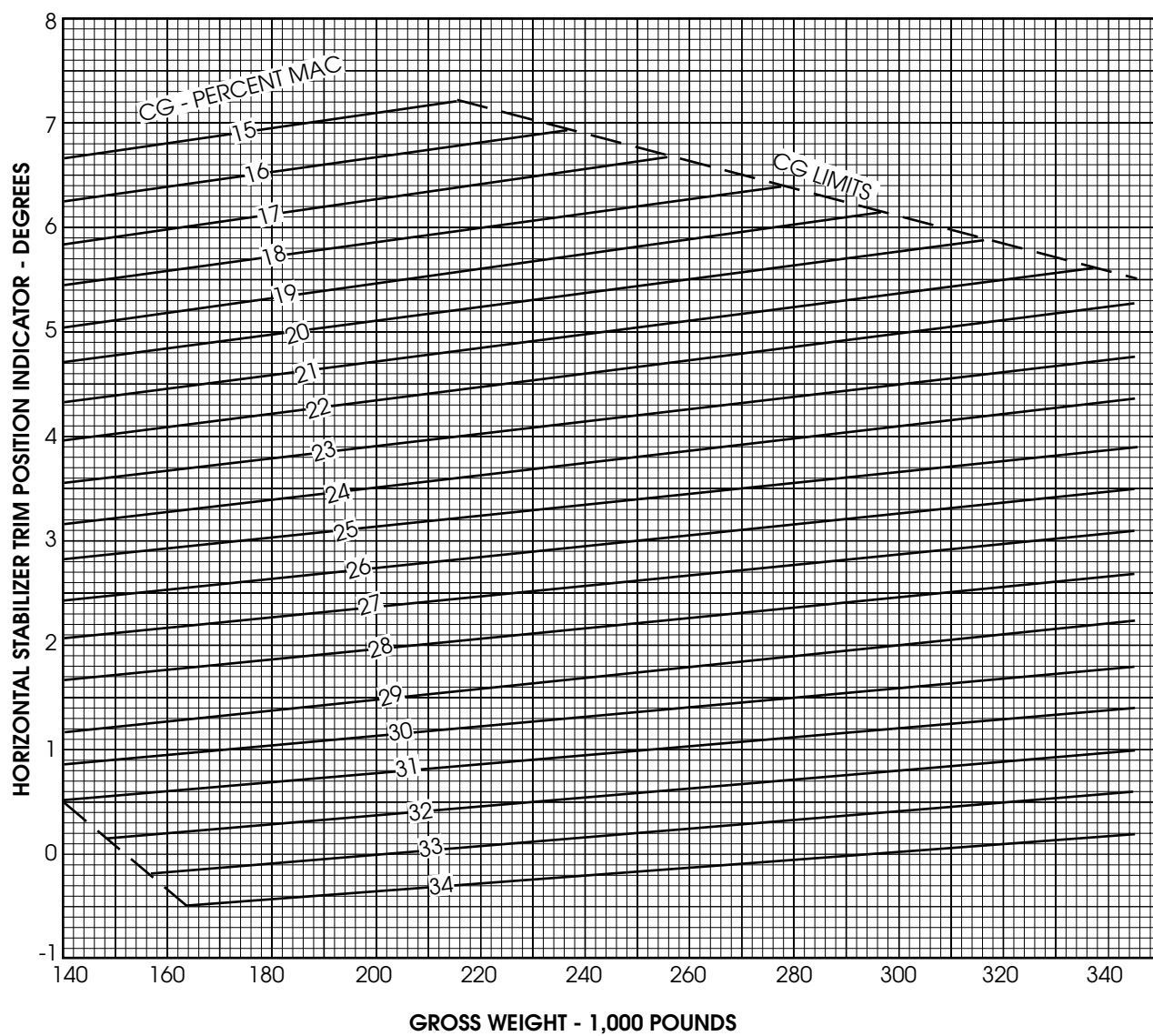
## ENGINE DATA (11 of 11)

Pressure Altitude	Temp °C	SMOE	TRT - AC & Press OFF		TRT		Go-Around		Reduced		Reverse Limiter
			EPR	TF	EPR	TF	EPR	TF	EPR	TF	
4,000'	-40	.968	2.164	19.6	2.129	19.1	2.157	19.5	1.98	17.5	4.2
	-35	.978	2.162	19.6	2.126	19.1	2.157	19.5	1.98	17.5	4.8
	-30	.989	2.157	19.5	2.122	19.1	2.157	19.5	1.98	17.5	5.6
	-25	.999	2.147	19.3	2.113	19.0	2.142	19.3	1.97	17.4	6.2
	-20	1.009	2.133	19.2	2.100	18.9	2.119	19.0	1.95	17.2	6.9
	-15	1.019	2.115	19.0	2.084	18.7	2.095	18.8	1.94	17.1	7.6
	-10	1.029	2.092	18.8	2.062	18.5	2.068	18.5	1.92	16.8	8.6
	-5	1.039	2.066	18.5	2.037	18.1	2.041	18.2	1.89	16.5	9.0
	0	1.049	2.035	18.1	2.008	17.8	2.012	17.9	1.86	16.1	9.7
	5	1.058	2.004	17.8	1.978	17.4	1.982	17.5	1.83	15.7	10.3
	10	1.068	1.975	17.4	1.950	17.2	1.951	17.2	1.80	15.4	10.4
	15	1.077	1.948	17.1	1.923	16.8	1.920	16.8	1.78	15.1	10.5
	20	1.086	1.922	16.8	1.898	16.5	1.887	16.4	1.75	14.7	10.6
	25	1.095	1.898	16.5	1.875	16.2	1.854	16.0	1.73	14.4	10.7
	30	1.104	1.874	16.2	1.852	16.0	1.820	15.6	1.71	14.1	10.8
	35	1.114	1.848	15.9	1.825	15.6	1.786	15.1	1.68	13.7	10.8
	40	1.123	1.816	15.5	1.794	15.2	1.750	14.7	1.65	13.2	10.9
	45	1.131	1.778	15.0	1.757	14.7	1.714	14.1	1.61	12.6	10.9
	50	1.141	1.735	14.4	1.717	14.1	1.677	13.5	1.60	12.4	10.9



# Take-Off Stabilizer Setting

75% Flaps



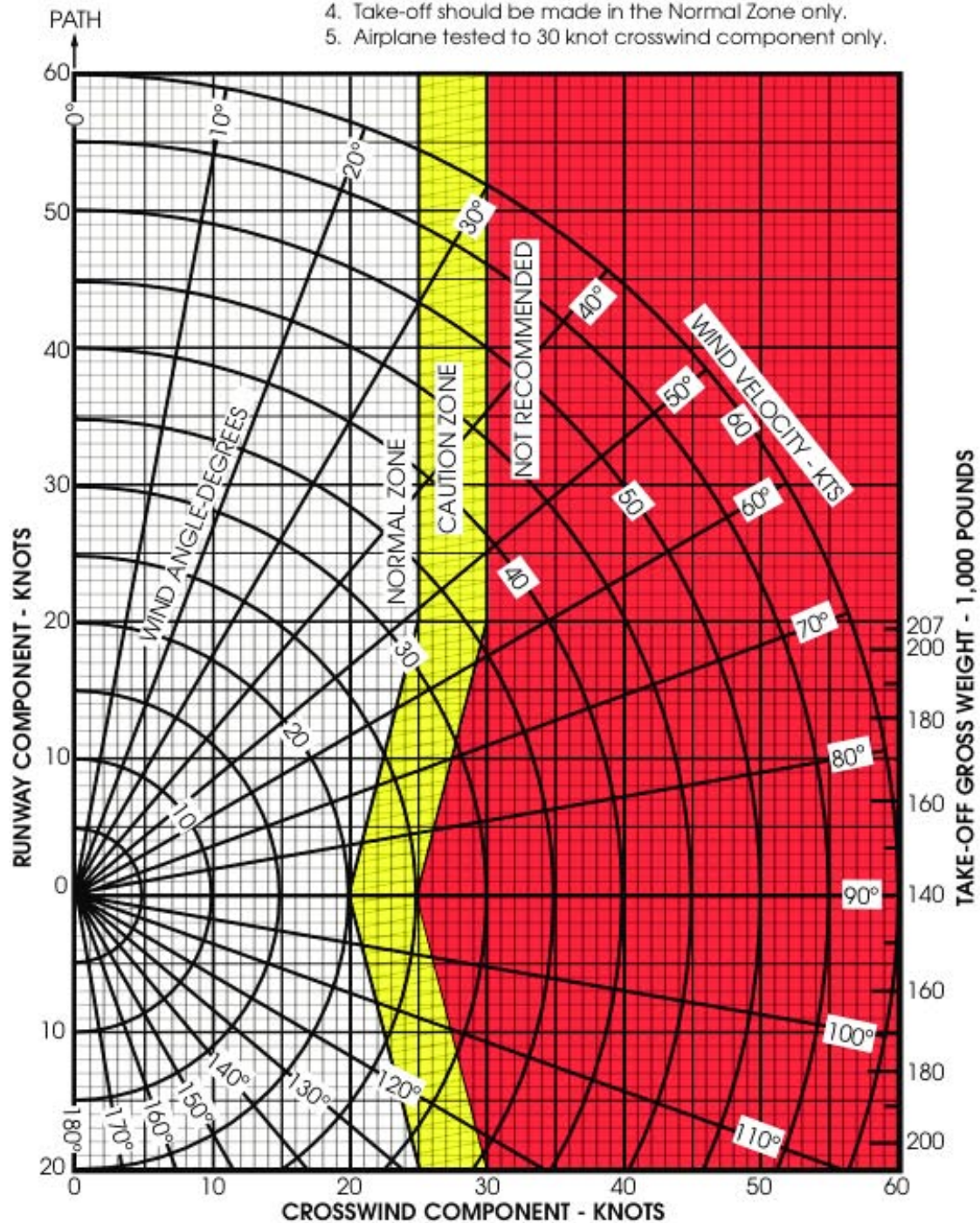
# Runway and Crosswind Component

## Take-Off Only

### WARNING

IF RUNWAY IS WET OR ICY, TAKE-OFF SHALL NOT BE MADE IN THE "CAUTION ZONE" OF FIGURE 3-5 NOR EXCEED "MAXIMUM CROSSWIND FOR TAKE-OFF" OF FIGURE 3-6. TAKE-OFF IN THE "NOT RECOMMENDED ZONE" SHALL NOT BE ATTEMPTED

1. To determine crosswind component for take-off planning, enter chart with full measured steady wind value plus gust increment.
2. See text for explanation of crosswind take-off and use of chart.
3. Crosswind limited to 20 knots when rudder pedal steering or spoilers are inoperative.
4. Take-off should be made in the Normal Zone only.
5. Airplane tested to 30 knot crosswind component only.





## Rotate Speed

Gross Weight 1,000	THRUST FACTOR														
	20.0	19.5	19.0	18.5	18.0	17.5	17.0	16.5	16.0	15.5	15.0	14.5	14.0	13.5	13.0
160	113	110	108	105	103	100	98	98	98	98	98	98	98	98	98
170	110	108	105	103	101	101	101	101	101	101	101	101	101	101	101
180	107	105	103	103	103	103	103	103	103	103	103	103	103	103	103
190	106	106	106	106	106	106	106	106	106	106	106	106	106	106	107
200	109	109	109	109	109	109	109	109	109	109	109	109	109	109	110
210	111	111	111	111	111	111	111	111	111	111	111	111	112	112	113
220	114	114	114	114	114	114	114	114	114	114	114	114	115	115	116
230	116	116	116	116	116	116	116	116	116	117	117	118	118	119	119
240	118	118	118	118	118	118	118	119	119	120	120	121	122	122	123
250	121	121	121	121	121	121	121	122	122	123	123	124	125	125	126
260	123	123	123	123	123	124	124	125	125	126	126	127	127	128	128
270	125	125	125	126	126	127	127	128	128	129	129	130	130	131	131
280	128	128	128	129	129	130	130	131	131	132	132	133	133	134	134
290	130	131	131	132	132	133	133	134	134	135	135	136	136	137	137
300	133	134	134	135	135	136	136	137	137	138	138	139	139	140	140
310	136	137	137	138	138	139	139	140	140	141	141	142	142	143	143
320	139	140	140	140	141	141	142	142	143	143	144	144	145	145	146
330	142	143	143	143	144	144	145	145	146	146	147	147	148	148	148
340	145	145	146	146	147	147	148	148	149	149	149	150	150	151	151
345	147	147	147	148	148	149	149	150	150	150	151	151	152	152	153

## Minimum Climbout Speed

## 75% Flaps

[illegible]

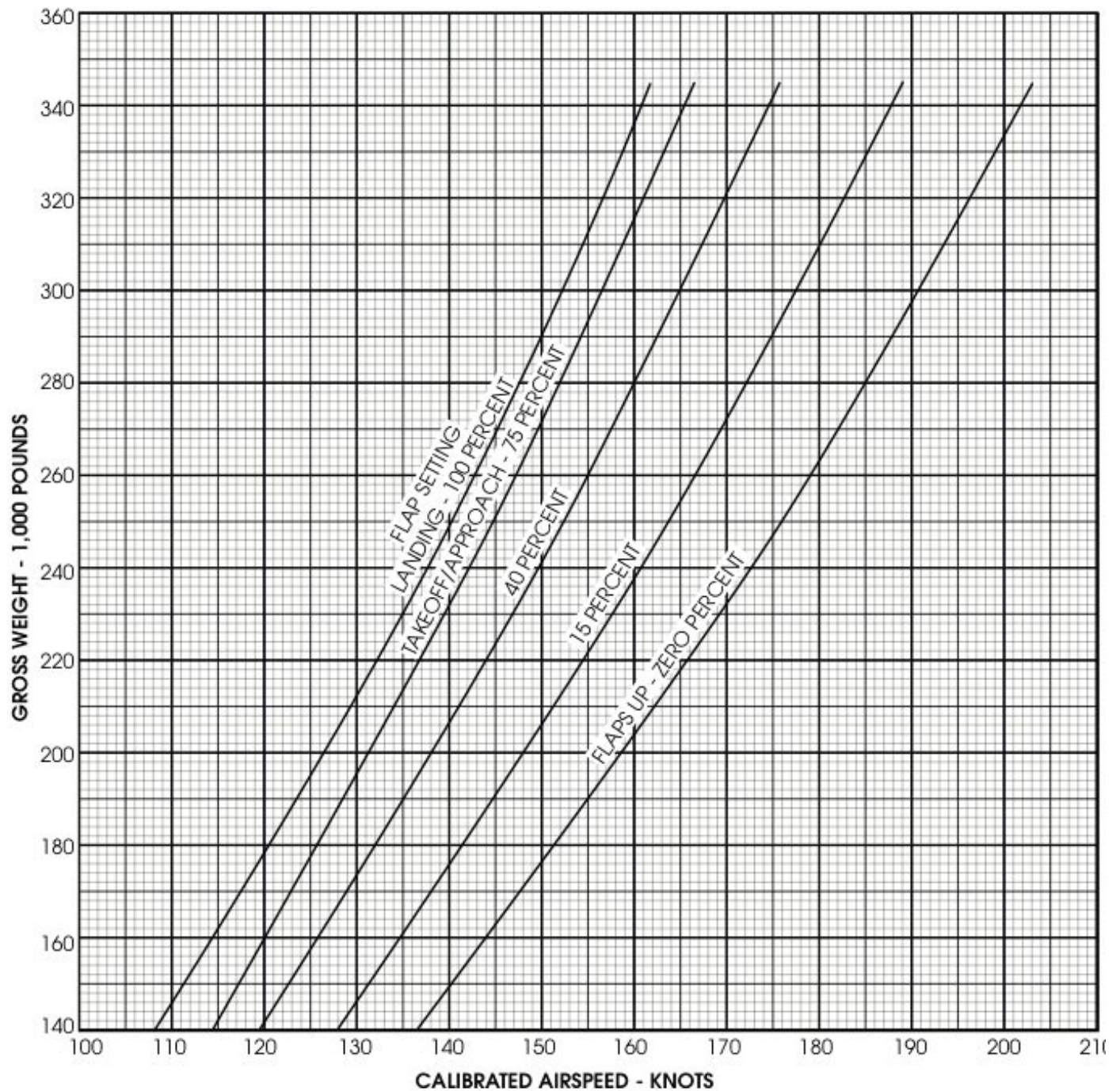
## Approach Speed - Flap Setting

GROSS WEIGHT POUNDS	FLAP SETTING				
	100%	75%	40%	15%	ZERO FLAP
160,000	115	121	126	135	145
170,000	118	123	129	139	148
180,000	121	126	133	142	152
190,000	124	129	136	145	156
200,000	127	132	139	149	159
210,000	130	135	142	152	163
220,000	133	137	145	155	166
230,000	135	140	147	158	170
240,000	138	143	150	161	173
250,000	140	145	153	164	176
260,000	143	148	155	167	179
270,000	146	150	158	170	182
280,000	148	152	160	173	185
290,000	150	155	163	175	188
300,000	153	157	165	178	191
310,000	155	159	168	181	194
320,000	157	161	170	183	197
330,000	159	164	173	186	199
340,000	161	166	175	183	202
345,000	162	167	176	190	204

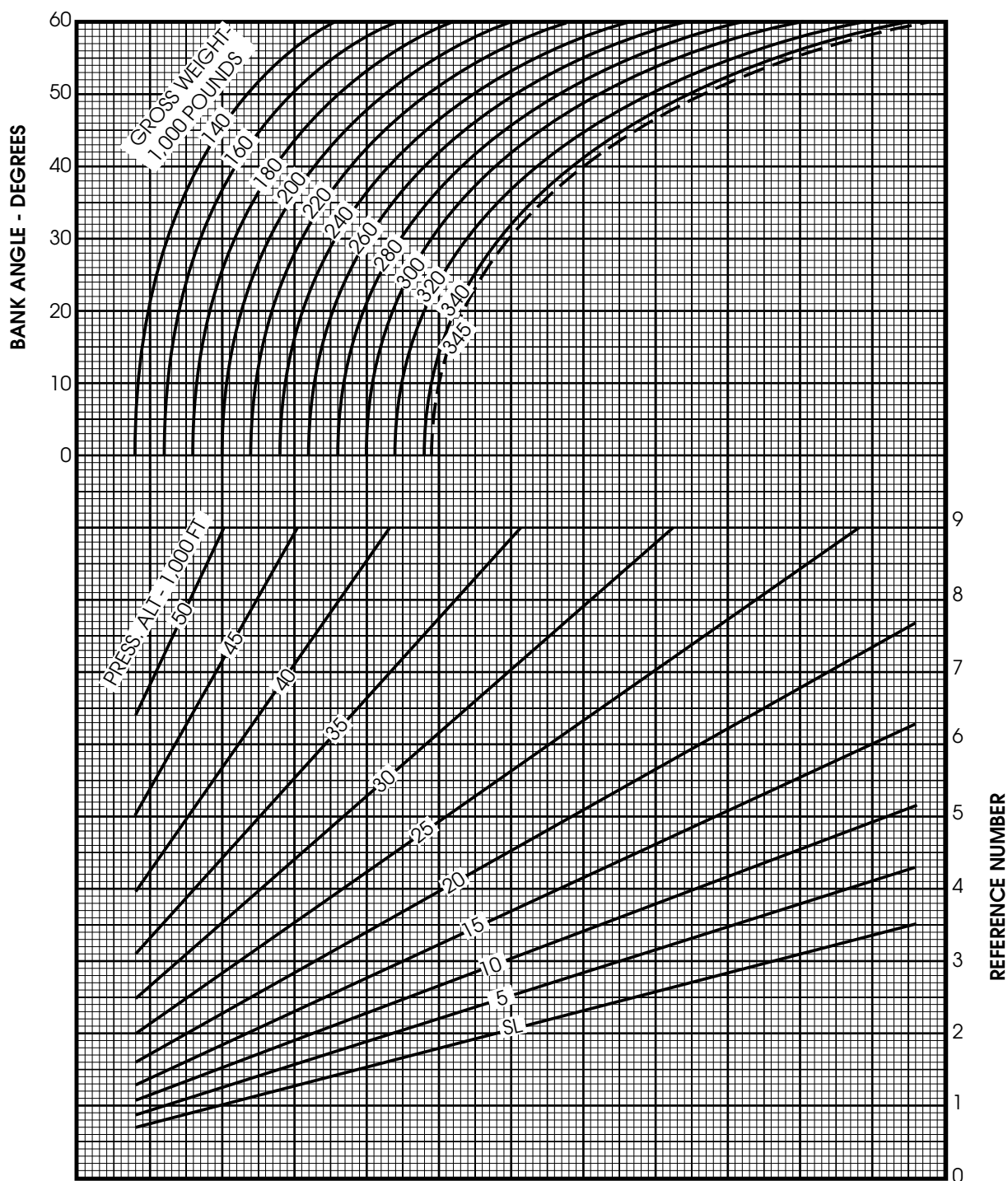


# Approach Speed - Crosswind

1. Threshold airspeed is approach airspeed minus 10 knots.
2. Two engine approach speed is approach speed (75% Flap) or two engine VMCA whichever is greater.

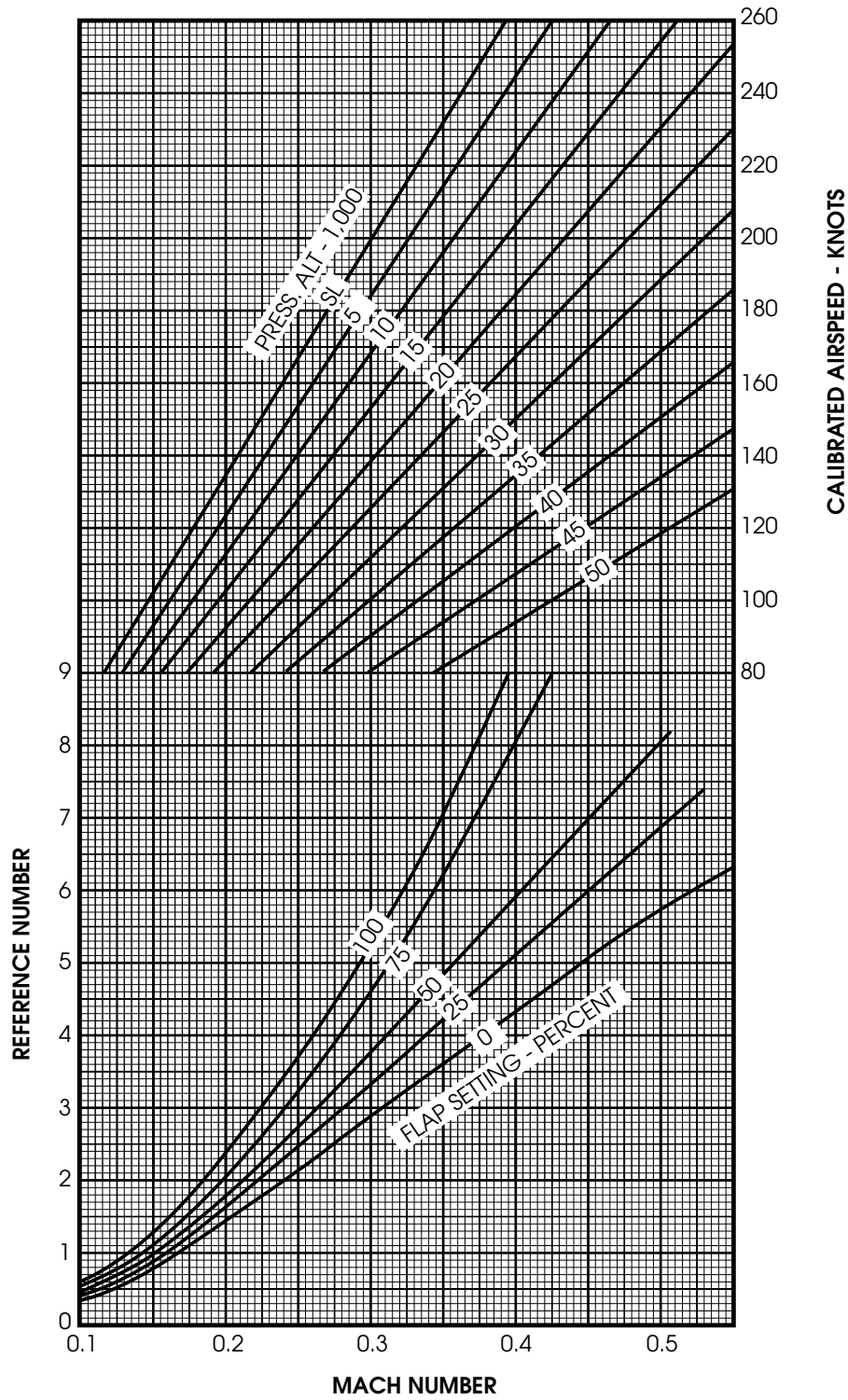


# Stall Speeds - Gear Down

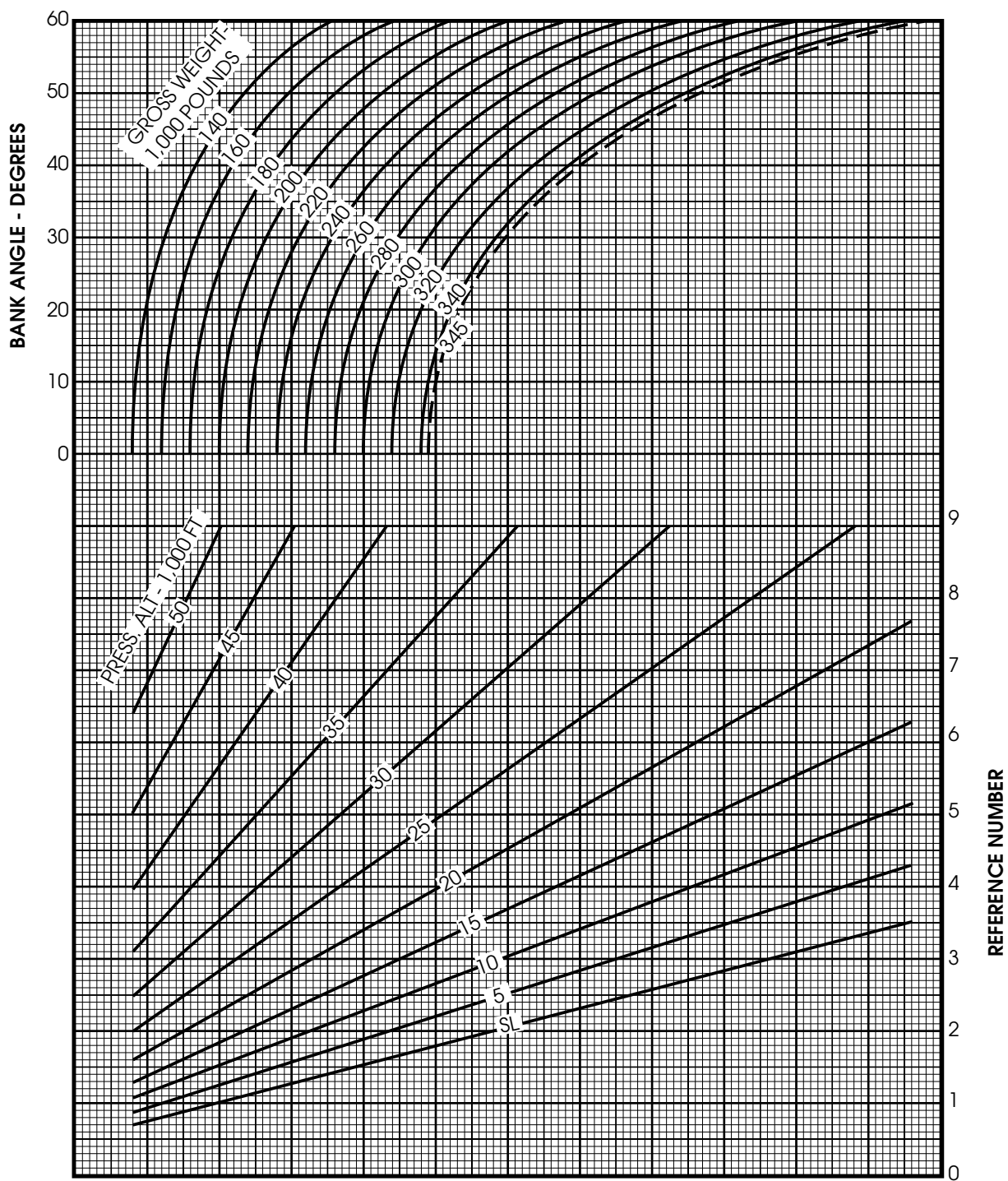




# Stall Speeds - Gear Down

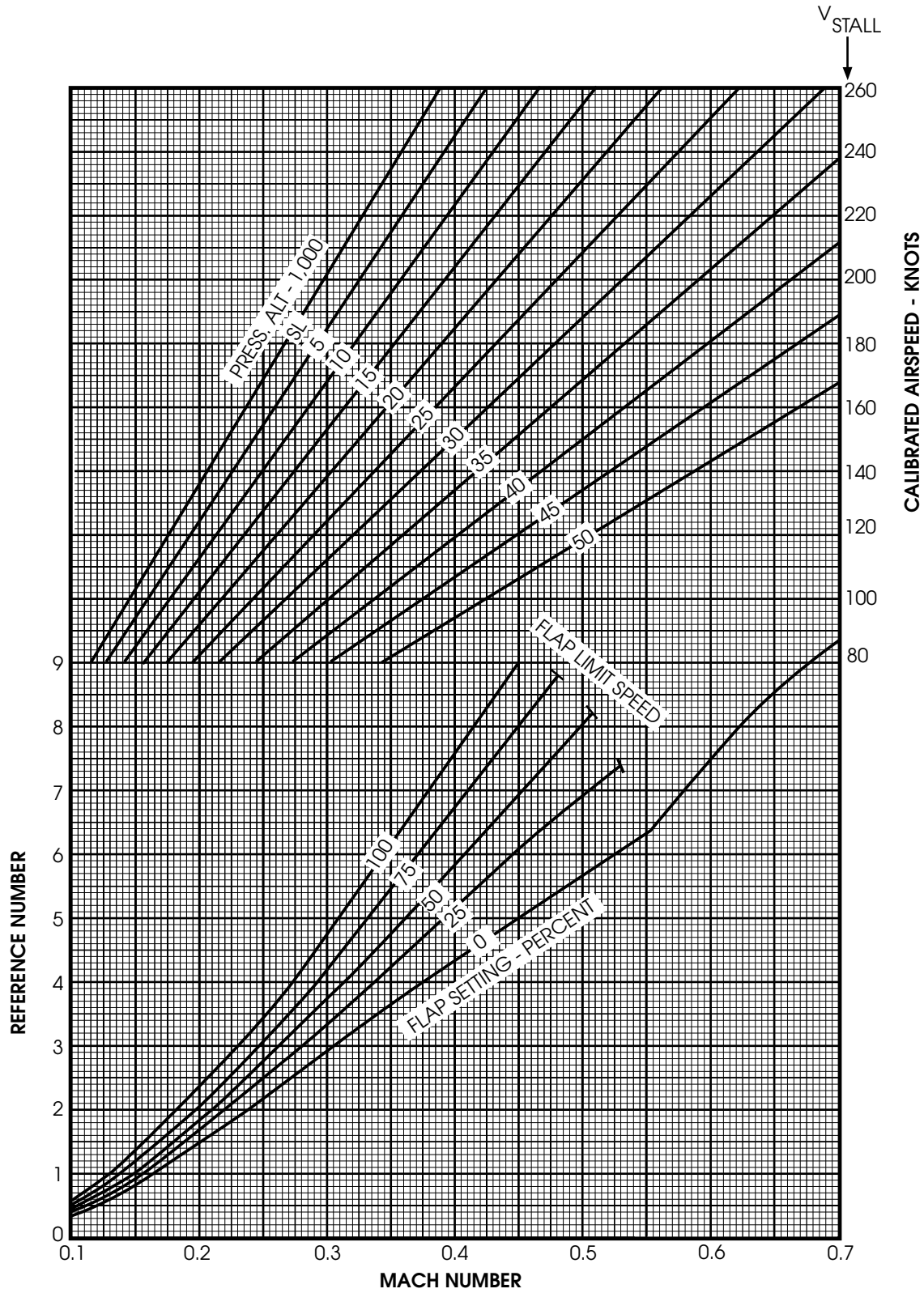


# Stall Speeds - Gear Up



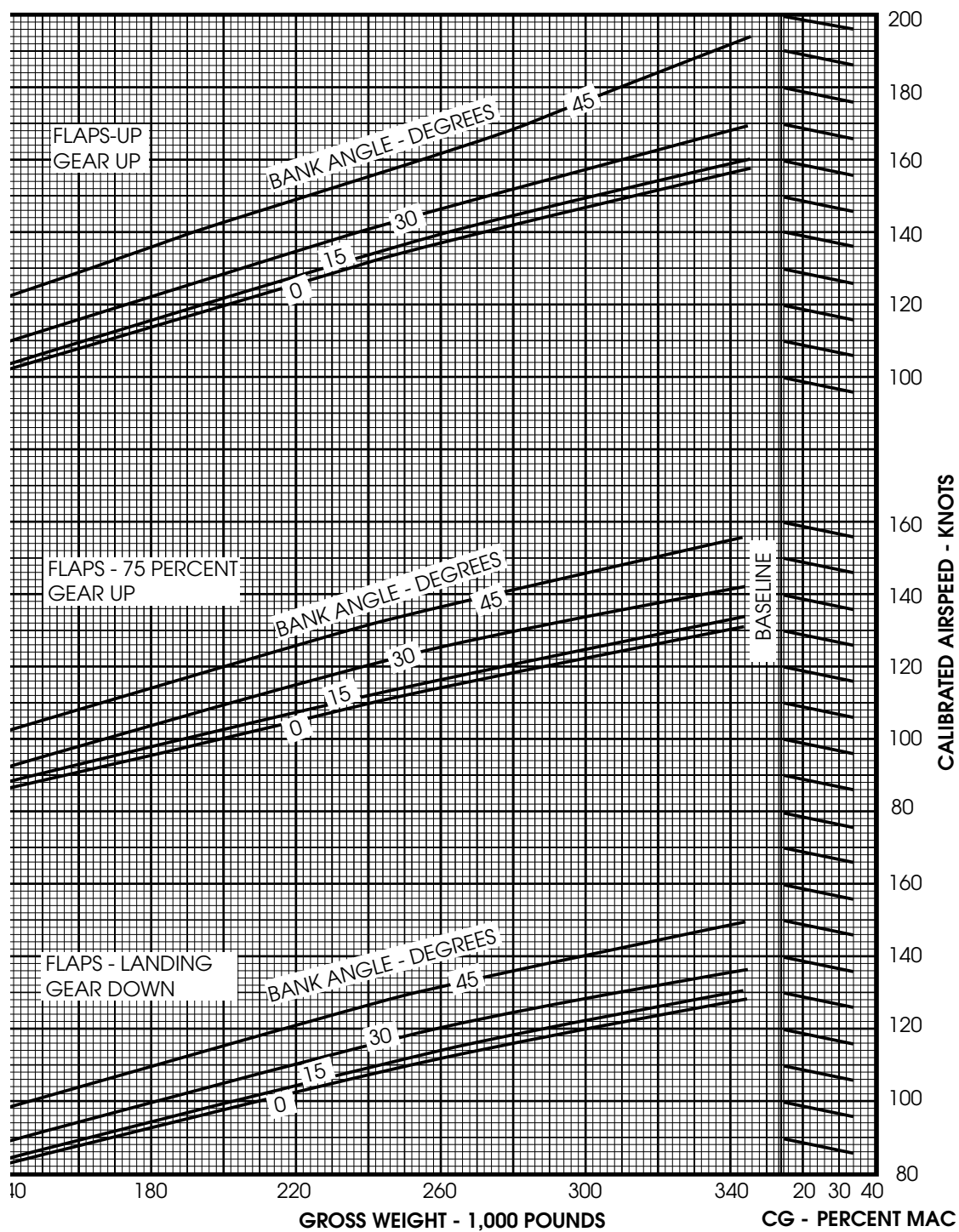


# Stall Speeds - Gear Up



# Shaker Onset Speeds

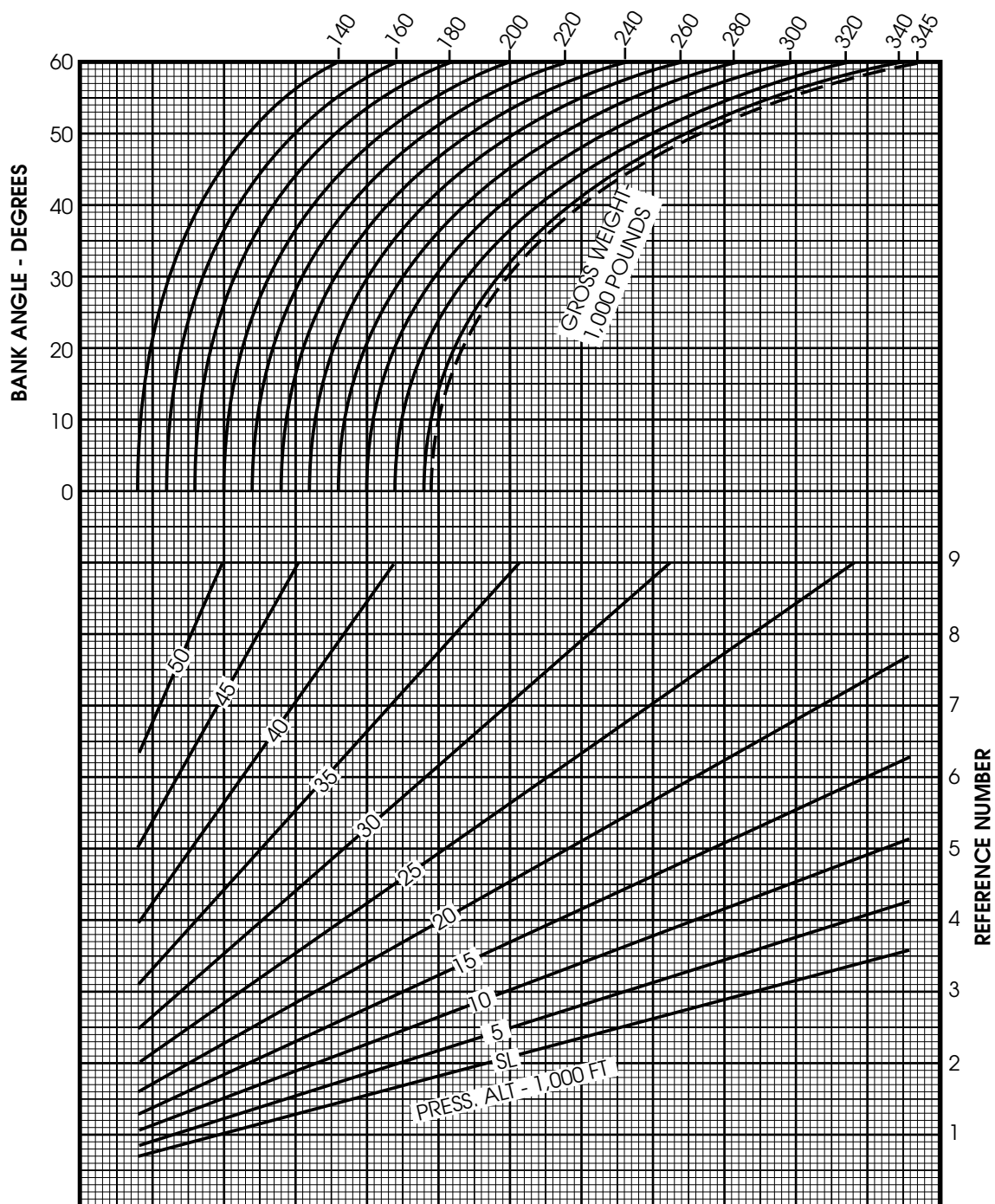
for speeds below Mach 0.25





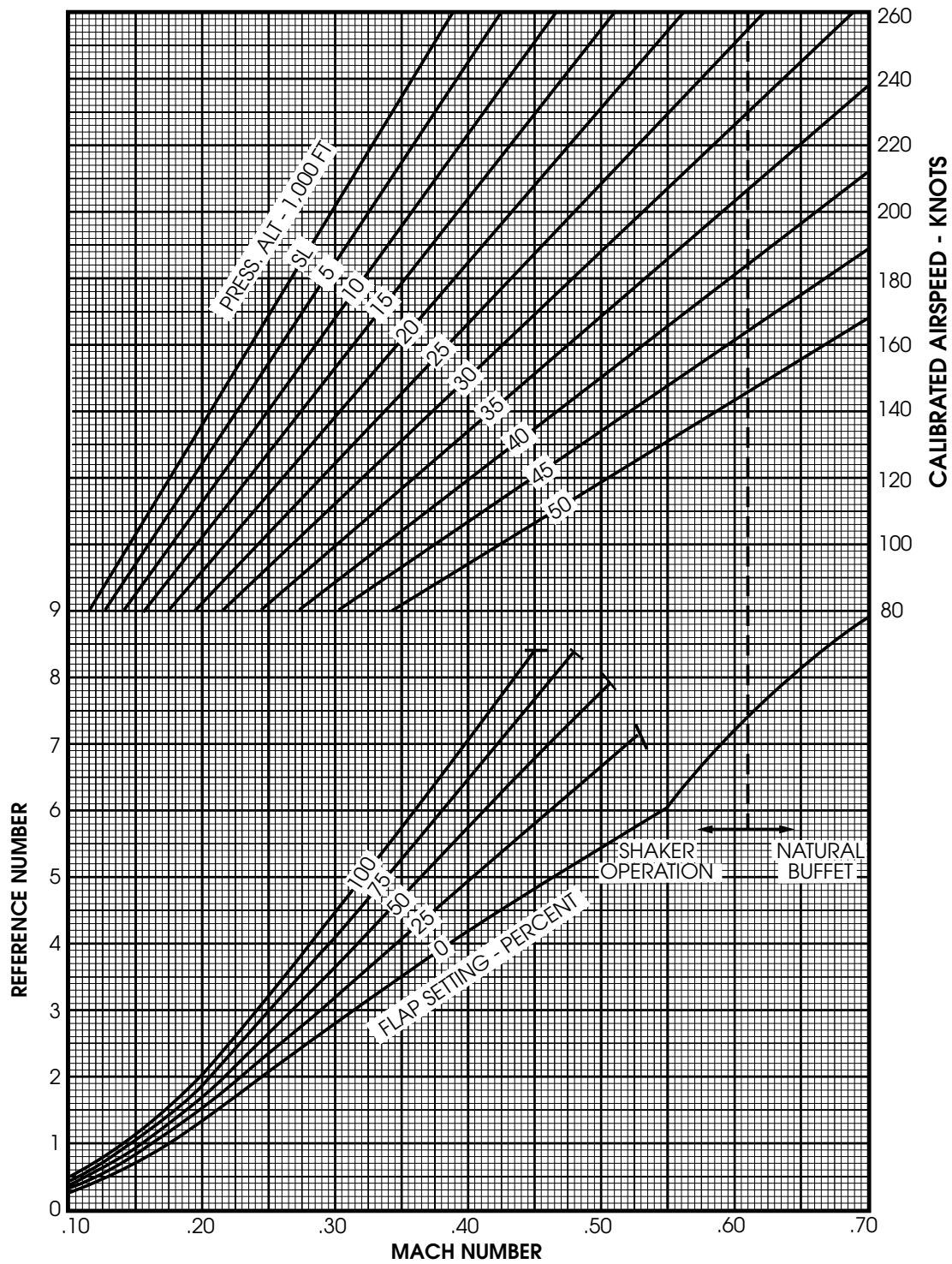
# Shaker Onset Speeds

B-Model



# Shaker Onset Speeds

B-Model





# Buffet Boundary Stick Shaker Speed Envelope

B-Model

ÆA Solid curve indicates region (below 0.70 MACH) where both stick shaker operation and natural buffet occur simultaneously. the dashed curve indicates where natural buffet occurs prior to stick shaker.  
À A Flaps and gear up.

