

Figure 1. Lift Vector

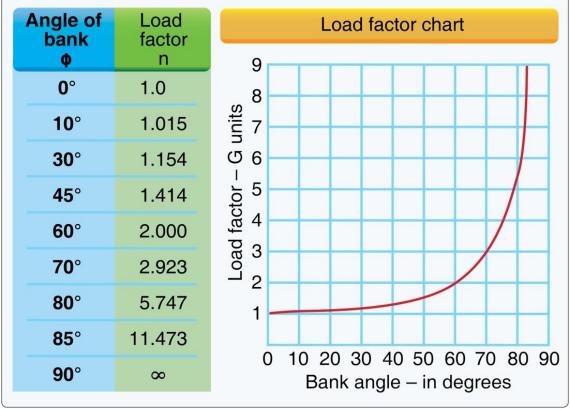


Figure 2. Load Factor Chart



Figure 3. Altimeter ©ASA

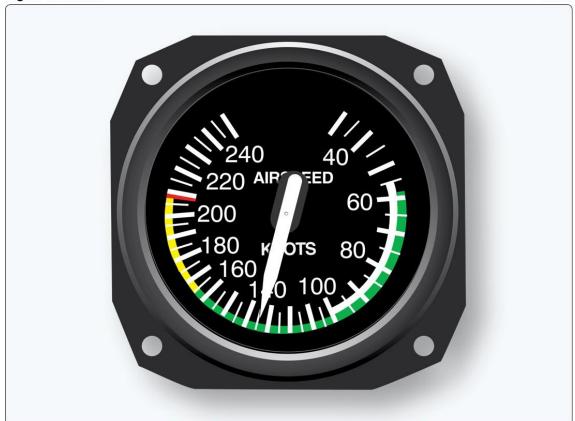


Figure 4. Airspeed Indicator





Figure 6. Heading Indicator

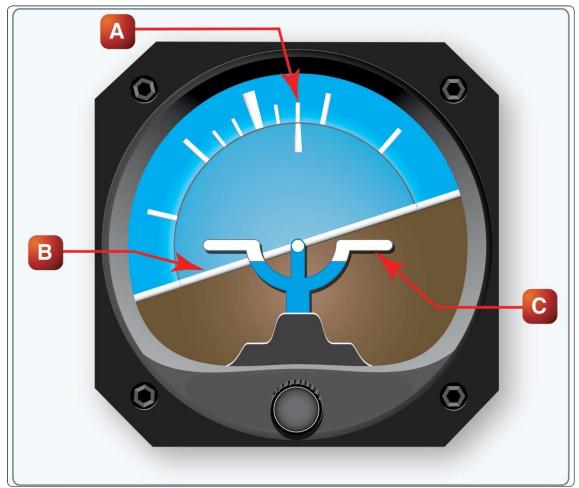


Figure 7. Attitude Indicator

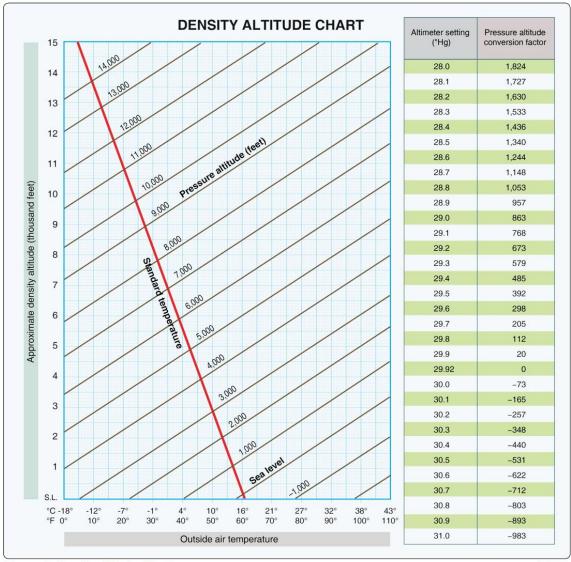


Figure 8. Density Altitude Chart

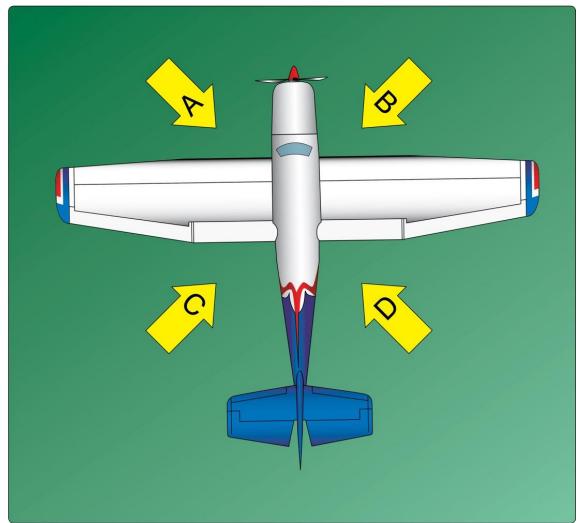


Figure 9. Control Position for Taxi

METAR KINK 121845Z 11012G18KT 15SM SKC 25/17 A3000

METAR KBOI 121854Z 13004KT 30SM SCT150 17/6 A3015

METAR KLAX 121852Z 25004KT 6SM BR SCT007 SCT250 16/15 A2991

SPECI KMDW 121856Z 32005KT 1 1/2SM RA OVC007 17/16 A2980 RMK RAB35

SPECI KJFK 121853Z 18004KT 1/2SM FG R04/2200 OVC005 20/18 A3006

Figure 12. Aviation Routine Weather Reports (METAR)

©ASA

UA/OV KOKC-KTUL/TM 1800/FL120/TP BE90/SK BKN018-TOP055/OVC072-TOP089/CLR ABV/TA M7/WV 08021/TB LGT 055-072/IC LGT-MOD RIME 072-089

Figure 14. Pilot Weather Report

TAF

KMEM 121720Z 1218/1324 20012KT 5SM HZ BKN030 PROB40 1220/1222 1SM TSRA OVC008CB FM122200 33015G20KT P6SM BKN015 OVC025 PROB40 1220/1222 3SM SHRA FM120200 35012KT OVC008 PROB40 1202/1205 2SM-RASN BECMG 1306/1308 02008KT BKN012 BECMG 1310/1312 00000KT 3SM BR SKC TEMPO 1212/1214 1/2SM FG FM131600 VRB06KT P6SM SKC=

KOKC 051130Z 0512/0618 14008KT 5SM BR BKN030 TEMPO 0513/0516 1 1/2SM BR FM051600 18010KT P6SM SKC BECMG 0522/0524 20013G20KT 4SM SHRA OVC020 PROB40 0600/0606 2SM TSRA OVC008CB BECMG 0606/0608 21015KT P6SM SCT040=

Figure 15. Terminal Aerodrome Forecasts (TAF)

©ASA

FB WBC 1517 DATA BASED VALID 1600Z	ON 151200		EMPS NEG A	ABV 24000					
FT	3000	6000	9000	12000	18000	24000	30000	34000	39000
ALS			2420	2635-08	2535-18	2444-30	245945	246755	246862
AMA		2714	2725+00	2625-04	2531-15	2542-27	265842	256352	256762
DEN			2321-04	2532-08	2434-19	2441-31	235347	236056	236262
HLC		1707-01	2113-03	2219-07	2330-17	2435-30	244145	244854	245561
MKC	0507	2006+03	2215-01	2322-06	2338-17	2348-29	236143	237252	238160
STL	2113	2325+07	2332+02	2339-04	2356-16	2373-27	239440	730649	731960

Figure 17. Winds and Temperatures Aloft Forecast

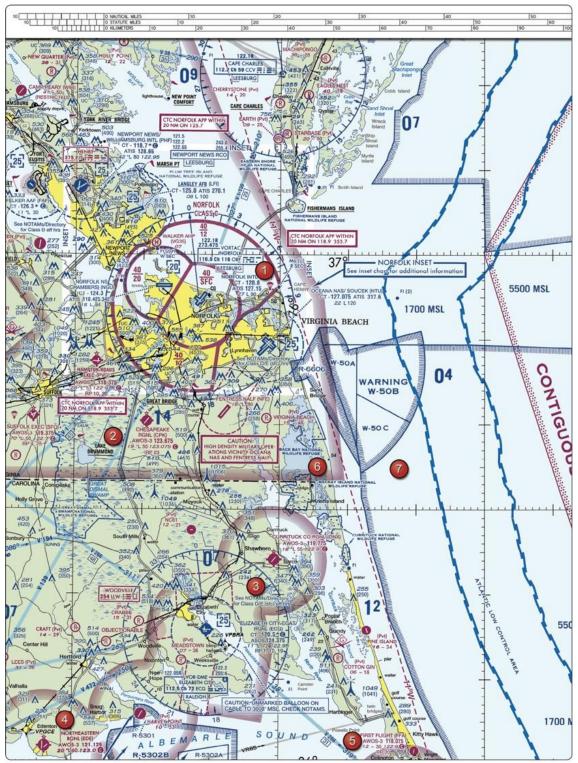


Figure 20. Sectional Chart Excerpt *NOTE: Chart is not to scale and should not be used for navigation. Use associated scale.* **©ASA**

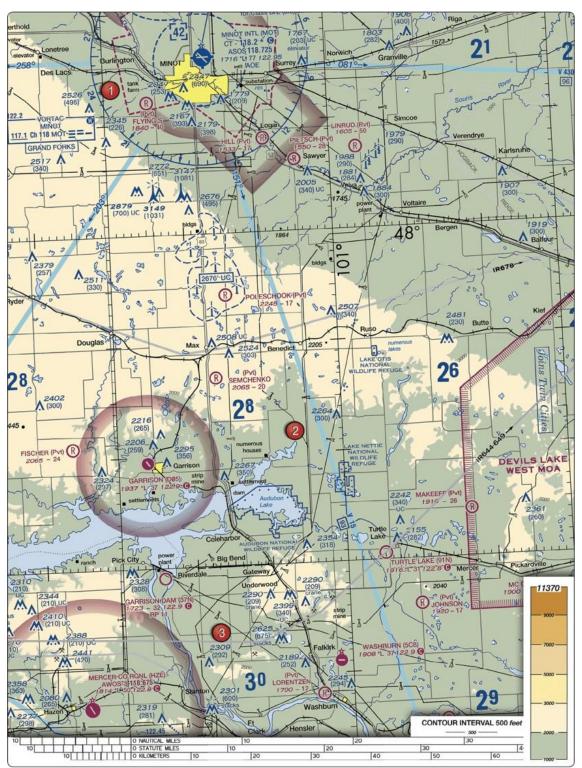


Figure 21. Sectional Chart Excerpt ©ASA

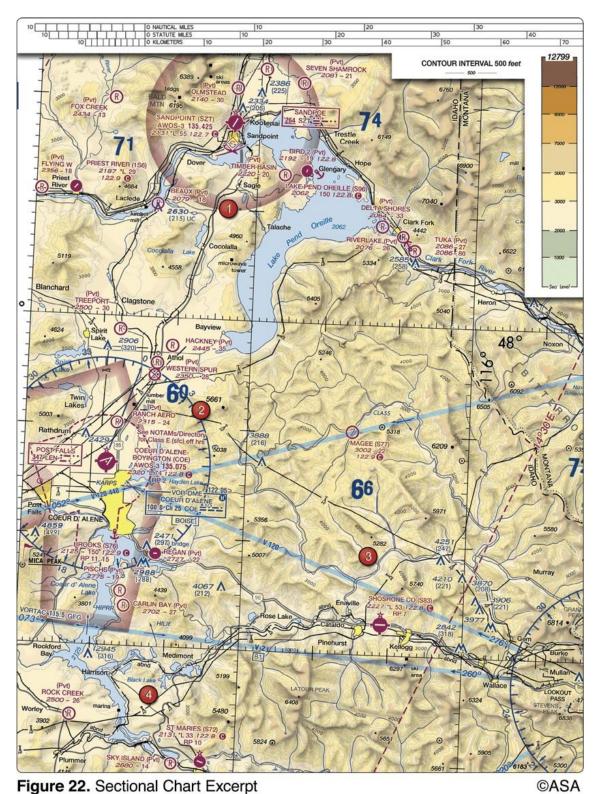


Figure 22. Sectional Chart Excerpt

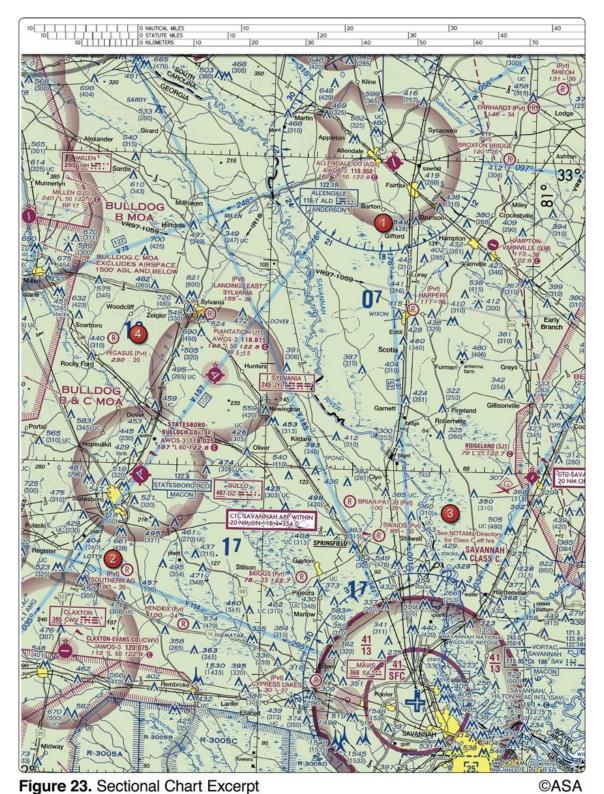


Figure 23. Sectional Chart Excerpt

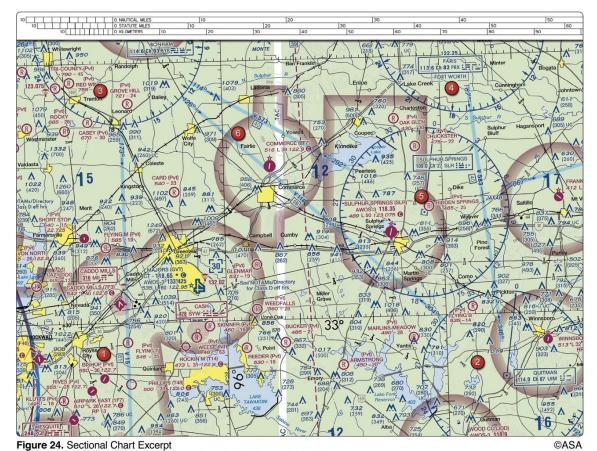


Figure 24. Sectional Chart Excerpt

NOTE: Chart is not to scale and should not be used for navigation. Use associated scale.

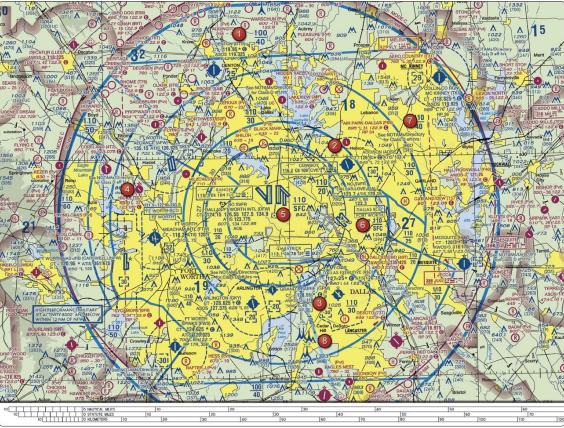


Figure 25. Sectional Chart Excerpt

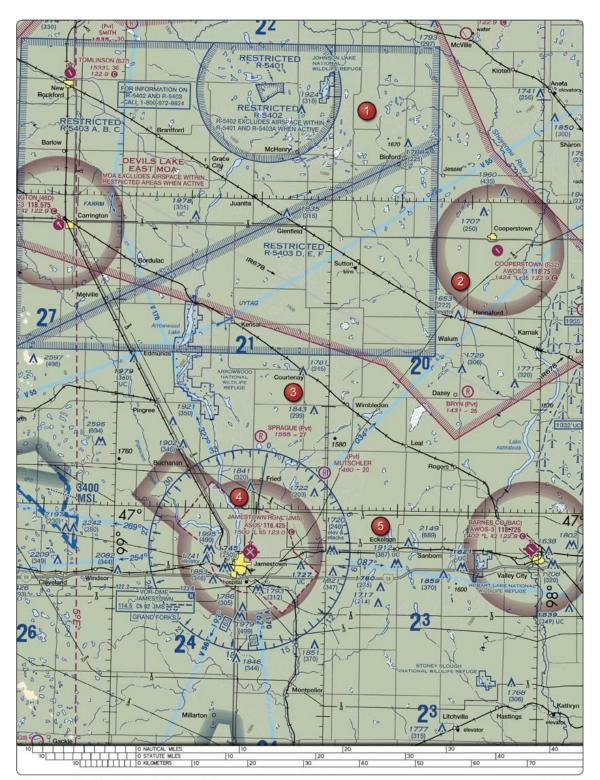


Figure 26. Sectional Chart Excerpt

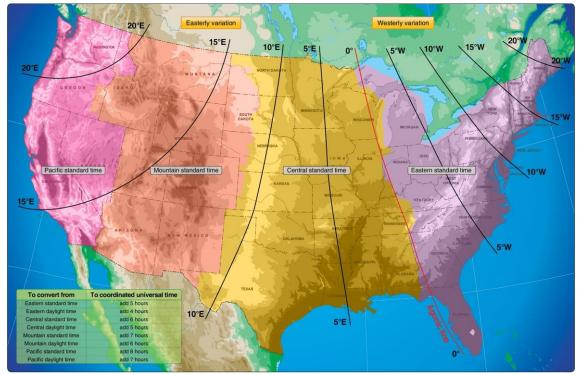




Figure 28. VOR **©ASA**

Useful load weights and moments

Baggage or 5th seat occupant **ARM 140** Moment Weight

Empty weight~2,015
MOM/100~1,554
Moment limits vs weight
Moment limits are based on the
following weight and center of
gravity limit data (landing gear
down).

	Occu	ipants						
Front seat	s ARM 85	Rear seats ARM 121						
Weight	Moment 100	Weight	Moment 100					
120	102	120	145					
130	110	130	157					
140	119	140	169					
150	128	150	182					
160	136	160	194					
170	144	170	206					
180	153	180	218					
190	162	190	230					
200	170	200	242					

U	Jsable fue	l								
Main v	Main wing tanks ARM 75									
Gallons	Weight	Moment 100								
5	30	22								
10	60	45								
15	90	68								
20	120	90								
25	150	112								
30	180	135								
35	210	158								
40	240	180								
44	264	198								

Auxiliary	wing tanks	ARM 94
Gallons	Weight	Moment 100
5	30	28
10	60	56
15	90	85
19	114	107

	*Oil	
Quarts	Weight	Moment 100
10	19	5

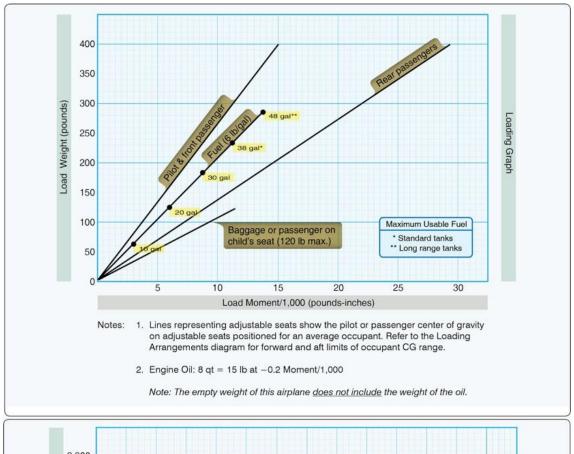
^{*}Included in basic empty weight.

Weight condition	Forward CG limit	AFT CG limit
2,950 lb (takeoff or landing)	82.1	84.7
2,525 lb	77.5	85.7
2,475 lb or less	77.0	85.7

Figure 32. Airplane Weight and Balance Tables

Weight	Minimum Moment 100	Maximum Moment 100	Weight	Minimum Moment 100	Maximum Moment 100
2,100	1,617	1,800	2,500	1,932	2,143
2,110	1,625	1,808	2,510	1,942	2,151
2,120	1,632	1,817	2,520	1,953	2,160
2,130	1,640	1,825	2,530	1,963	2,168
2,140	1,648	1,834	2,540	1,974	2,176
2,150	1,656	1,843	2,550	1,984	2,184
2,160	1,663	1,851	2,560	1,995	2,192
2,170	1,671	1,860	2,570	2,005	2,200
2,180	1,679	1,868	2,580	2,016	2,208
2,190	1,686	1,877	2,590	2,026	2,216
2,200	1,694	1,885	2,600	2,037	2,224
2,210	1,702	1,894	2,610	2,048	2,232
2,220	1,709	1,903	2,620	2,058	2,239
2,230	1,717	1,911	2,630	2,069	2,247
2,240	1,725	1,920	2,640	2,080	2,255
2,250	1,733	1,928	2,650	2,090	2,263
2,260	1,740	1,937	2,660	2,101	2,271
2,270	1,748	1,945	2,670	2,112	2,279
2,280	1,756	1,954	2,680	2,123	2,287
2,290	1,763	1,963	2,690	2,133	2,295
2,300	1,771	1,971	2,700	2,144	2,303
2,310	1,779	1,980	2,710	2,155	2,311
2,320	1,786	1,988	2,720	2,166	2,319
2,330	1,794	1,997	2,730	2,177	2,326
2,340	1,802	2,005	2,740	2,188	2,334
2,350	1,810	2,014	2,750	2,199	2,342
2,360	1,817	2,023	2,760	2,210	2,350
2,370	1,825	2,031	2,770	2,221	2,358
2,380	1,833	2,040	2,780	2,232	2,366
2,390	1,840	2,048	2,790	2,243	2,374
2,400	1,848	2,057	2,800	2,254	2,381
2,410	1,856	2,065	2,810	2,265	2,389
2,420	1,863	2,074	2,820	2,276	2,397
2,430	1,871	2,083	2,830	2,287	2,405
2,440	1,879	2,091	2,840	2,298	2,413
2,450	1,887	2,100	2,850	2,309	2,421
2,460	1,894	2,108	2,860	2,320	2,428
2,470	1,902	2,117	2,870	2,332	2,436
2,480	1,911	2,125	2,880	2,343	2,444
2,490	1,921	2,134	2,890	2,354	2,452
			2,900	2,365	2,460
			2,910	2,377	2,468
			2,920	2,388	2,475
			2,930	2,399	2,483
			2,940	2,411	2,491
			2,950	2,422	2,499

Figure 33. Airplane Weight and Balance Tables



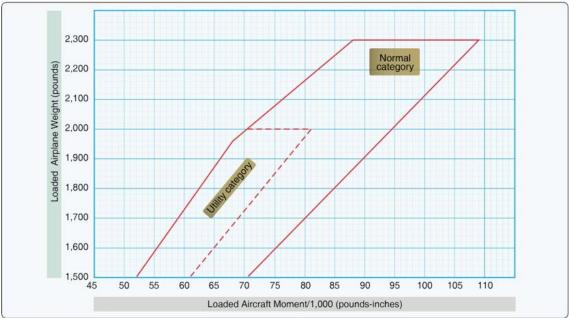


Figure 34. Airplane Weight and Balance Graphs

							(65% Ma	ximum		an energy in	ower s			,800 p	ounds)								
D			ISA	4 −20 °C	(-36	°F)					St	andard o	day (IS	SA)					ISA	4 +20 °C	(+36	°F)		
Press ALT.	Ю	АТ	Engine speed	MAN. press		l flow engine	TA	NS .	10	АТ	Engine speed	MAN. press		l flow engine	TA	AS	10	АТ	Engine speed	MAN. press		I flow engine	TA	AS
Feet	°F	°C	RPM	IN HG	PSI	GPH	KTS	MPH	°F	°C	RPM	IN HG	PSI	GPH	KTS	MPH	°F	°C	RPM	IN HG	PSI	GPH	KTS	MP
SL	27	-3	2,450	20.7	6.6	11.5	147	169	63	17	2,450	21.2	6.6	11.5	150	173	99	37	2,450	21.8	6.6	11.5	153	17
2,000	19	-7	2,450	20.4	6.6	11.5	149	171	55	13	2,450	21.0	6.6	11.5	153	176	91	33	2,450	21.5	6.6	11.5	156	18
4,000	12	-11	2,450	20.1	6.6	11.5	152	175	48	9	2,450	20.7	6.6	11.5	156	180	84	29	2,450	21.3	6.6	11.5	159	18
6,000	5	-15	2,450	19.8	6.6	11.5	155	178	41	5	2,450	20.4	6.6	11.5	158	182	79	26	2,450	21.0	6.6	11.5	161	18
8,000	-2	-19	2,450	19.5	6.6	11.5	157	181	36	2	2,450	20.2	6.6	11.5	161	185	72	22	2,450	20.8	6.6	11.5	164	18
10,000	-8	-22	2,450	19.2	6.6	11.5	160	184	28	-2	2,450	19.9	6.6	11.5	163	188	64	18	2,450	20.3	6.5	11.4	166	19
12,000	-15	-26	2,450	18.8	6.4	11.5	162	186	21	-6	2,450	18.8	6.1	10.9	163	188	57	14	2,450	18.8	5.9	10.6	163	18
14,000	-22	-30	2,450	17.4	5.8	10.5	159	183	14	-10	2,450	17.4	5.6	10.1	160	184	50	10	2,450	17.4	5.4	9.8	160	18
16,000	-29	-34	2,450	16.1	5.3	9.7	156	180	7	-14	2,450	16.1	5.1	9.4	156	180	43	6	2,450	16.1	4.9	9.1	155	17

Figure 35. Airplane Power Setting Table

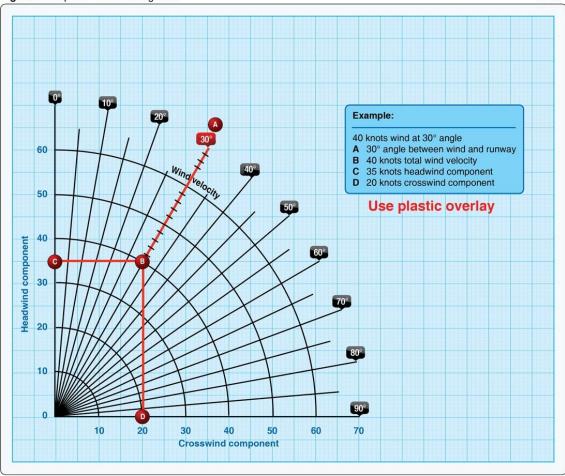


Figure 36. Crosswind Component Graph

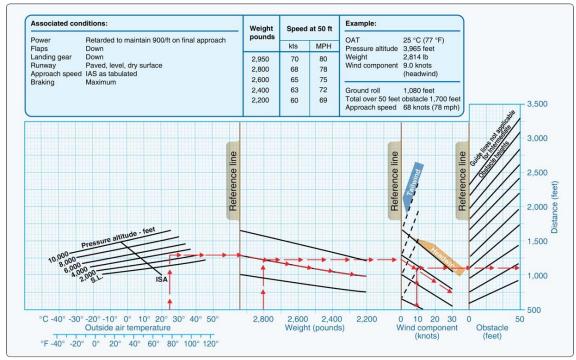


Figure 37. Airplane Landing Distance Graph

Landing distance Flaps lowered to 40° – Power of Hard surface runway – Zero wind										
Approach	Approach	At sea le	vel & 59 °F	At 2,500 f	eet & 50 °F	At 5,000 fe	et & 41 °F	At 7,500 feet & 32 °F		
Gross weight lb	ss weight speed IAS		Total to clear 50 feet OBS	Ground roll	Total to clear 50 feet OBS	Ground roll	Total to clear 50 feet OBS	Ground roll	Total to clear 50 feet OBS	
1,600	60	445	1,075	470	1,135	495	1,195	520	1,255	

- 1. Decrease the distances shown by 10% for each 4 knots of headwind.
 2. Increase the distance by 10% for each 60 °F temperature increase above standard.
 3. For operation on a dry, grass runway, increase distance (both "ground roll" and "total to clear 50 feet obstacle") by 20% of the "total to clear 50 feet obstacle" figure.

Figure 38. Airplane Landing Distance Table **©ASA** Example: Takeoff speed Associated conditions Weight Lift-off 50 ft Power Full throttle 2,600 rpm pounds OAT

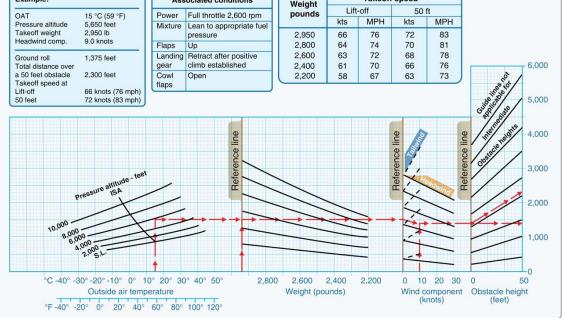


Figure 40. Airplane Takeoff Distance Graph

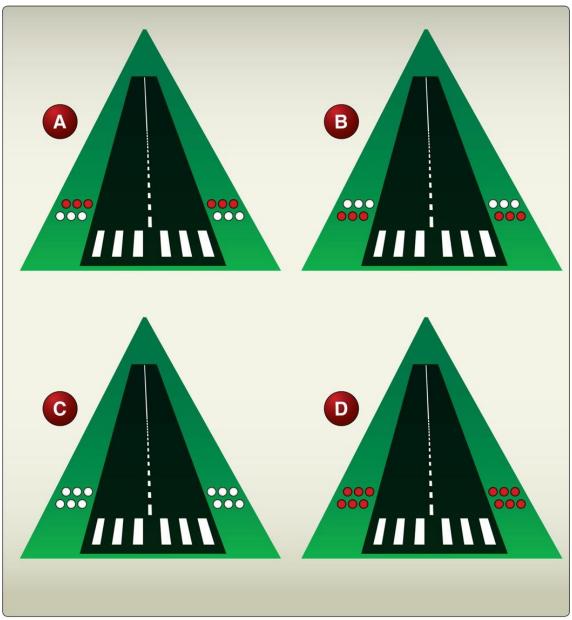


Figure 47. VASI Illustrations

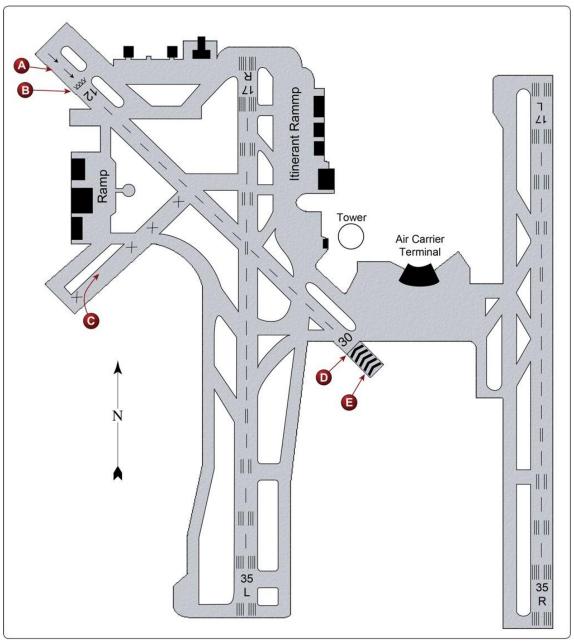


Figure 48. Airport Diagram

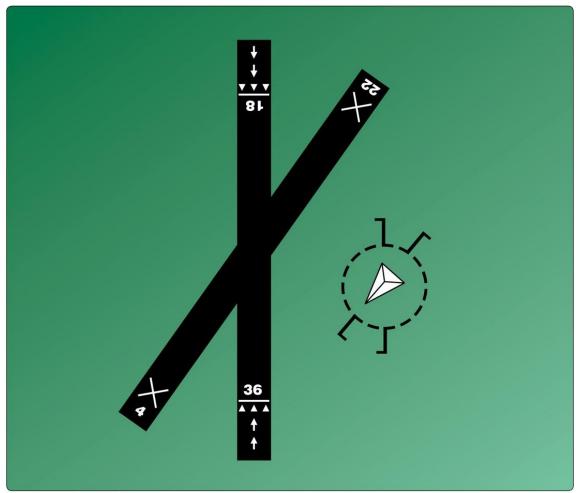


Figure 49. Airport Diagram

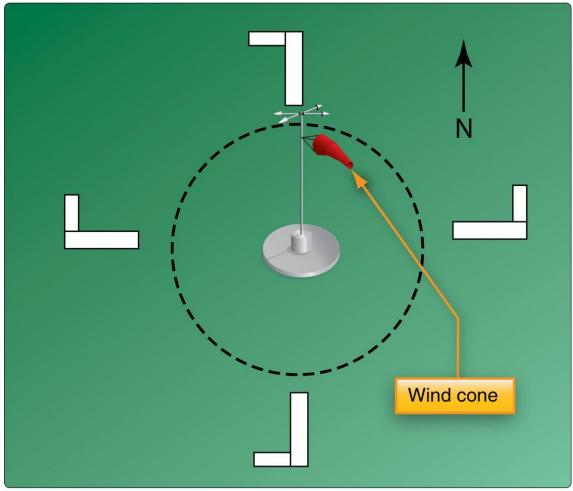


Figure 50. Wind Sock Airport Landing Indicator

	No. 2120-002 Exp. 5/31/201
Department of Transportation and Transportation	
PRIORITY ADDRESSEE(S)	
=FF	
	,
	<=
FILING TIME ORIGINATOR	
SPECIFIC IDENTIFICATION OF ADDRESSEE(S) AND / OR ORIGINATOR	
3 MESSAGE TYPE 7 AIRCRAFT IDENTIFICATION 8 FLIGHT RULES TYPE OF F	LIGHT
<=(FPL	=>
9 NUMBER TYPE OF AIRCRAFT WAKE TURBULENCE CAT. 10 EQUIPMENT	
	<=
13 DEPARTURE AERODROME TIME	
<=	
15 CRUISING SPEED LEVEL ROUTE	
	<=
TOTAL EET	
TOTAL EET 16 DESTINATION AERODROME HR MIN ALTN AERODROME 2ND ALTN AERODR	ROME
	ROME
16 DESTINATION AERODROME HR MIN ALTN AERODROME 2ND ALTN AERODR	
16 DESTINATION AERODROME HR MIN ALTN AERODROME 2ND ALTN AERODR	
16 DESTINATION AERODROME HR MIN ALTN AERODROME 2ND ALTN AERODR	
16 DESTINATION AERODROME HR MIN ALTN AERODROME 2ND ALTN AERODR	<=
16 DESTINATION AERODROME HR MIN ALTN AERODROME 2ND ALTN AERODR 18 OTHER INFORMATION SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES) 19 ENDURANCE EMERGENCY RADIO	<=
16 DESTINATION AERODROME HR MIN ALTN AERODROME 2ND ALTN AERODROME 18 OTHER INFORMATION SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES) 19 ENDURANCE EMERGENCY RADIO HR MIN PERSONS ON BOARD UHF VHF ELT	<=
18 OTHER INFORMATION SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES) 19 ENDURANCE HR MIN PERSONS ON BOARD HR MIN PERSONS ON BOARD HR MIN PLANSMITTED IN FPL MESSAGES) EMERGENCY RADIO UHF VHF ELT P/ L P/ L P/ L P/ L D R/ U V E	<=
SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES) 19 ENDURANCE EMERGENCY RADIO HR MIN PERSONS ON BOARD UHF VHF ELT P/	<=
SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES) 19 ENDURANCE HR MIN PERSONS ON BOARD HR MIN PERSONS ON BOARD SURVIVAL EQUIPMENT POLAR DESERT MARITIME JUNGLE LIGHT FLUORES UHF VHF	<=
SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES) 19 ENDURANCE EMERGENCY RADIO HR MIN PERSONS ON BOARD UHF VHF ELT P/	<=
SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES) 19 ENDURANCE HR MIN PERSONS ON BOARD HR MIN POLAR DESERT MARITIME JUNGLE J P D M J J L F U V DINGHIES NUMBER CAPACITY COVER COLOR	<=
SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES) 19 ENDURANCE HR MIN PERSONS ON BOARD HR MIN PERSONS ON BOARD E/	<=
SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES) 19 ENDURANCE HR MIN PERSONS ON BOARD HR MIN PERSONS ON BOARD SURVIVAL EQUIPMENT POLAR DESERT MARITIME JUNGLE J P D M J J L F U V DINGHIES NUMBER CAPACITY COVER COLOR AIRCRAFT COLOR AND MARKINGS	<=
SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES) 19 ENDURANCE HR MIN PERSONS ON BOARD HR MIN PERSONS ON BOARD UHF VHF ELT P/	<=
SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES) 19 ENDURANCE HR MIN PERSONS ON BOARD HR MIN POLAR DESERT MARITIME JUNGLE JOURNANCE POLAR DESERT MARITIME JUNGLE JOURNANCE HR MIN POLAR DESERT MARITIME JUNGLE JOURNANCE JOURNANCE AIRCRAFT COLOR AND MARKINGS AIRCRAFT COLOR AND MARKINGS	<=
SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES) 19 ENDURANCE EMERGENCY RADIO HR MIN PERSONS ON BOARD UHF VHF ELT P/	<=
SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES) 19 ENDURANCE EMERGENCY RADIO HR MIN PERSONS ON BOARD UHF VHF ELT POLAR DESERT MARITIME JUNGLE LIGHT FLUORES UHF VHF J P D M J L F U V DINGHIES NUMBER CAPACITY COVER COLOR AIRCRAFT COLOR AND MARKINGS A/ REMARKS PILOT-IN-COMMAND	<=
16 DESTINATION AERODROME HR MIN ALTN AERODROME 2ND ALTN AERODROME 18 OTHER INFORMATION SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES) EMERGENCY RADIO HR MIN PERSONS ON BOARD HR MIN PERSONS ON BOARD HR MIN PERSONS ON BOARD FE/	<= <= <=
SUPPLEMENTARY INFORMATION (NOT TO BE TRANSMITTED IN FPL MESSAGES) 19 ENDURANCE EMERGENCY RADIO HR MIN PERSONS ON BOARD UHF VHF ELT POLAR DESERT MARITIME JUNGLE LIGHT FLUORES UHF VHF J P D M J L F U V DINGHIES NUMBER CAPACITY COVER COLOR AIRCRAFT COLOR AND MARKINGS A/ REMARKS PILOT-IN-COMMAND	<= <= <=

Figure 51. Flight Plan Form

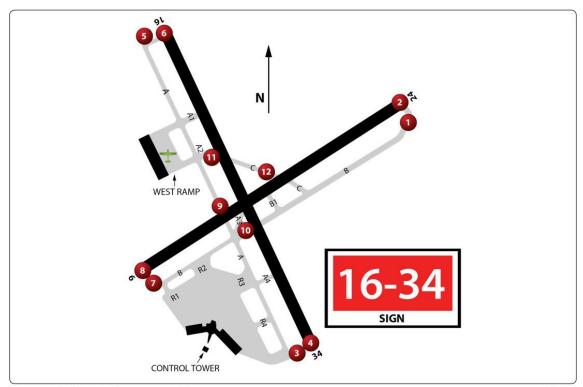


Figure 58. Airport Diagram and Sign

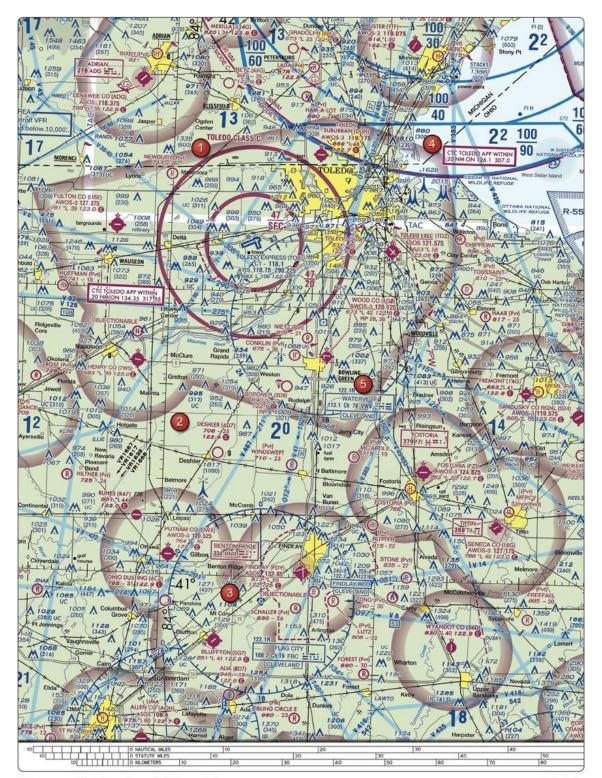


Figure 59. Sectional Chart Excerpt *NOTE: Chart is not to scale and should not be used for navigation. Use associated scale.*

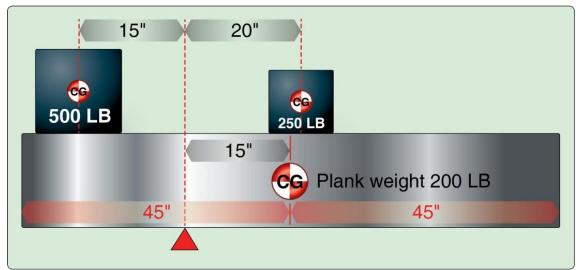


Figure 60. Weight and Balance Diagram ©ASA

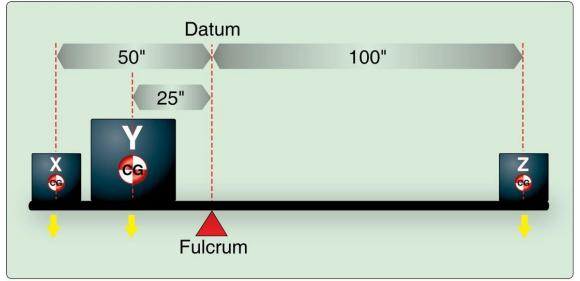


Figure 61. Weight and Balance Diagram

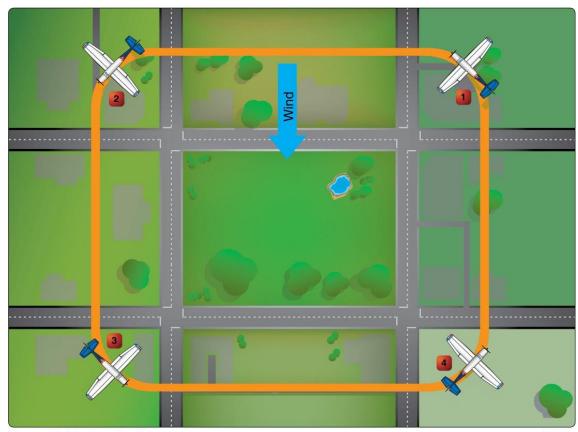


Figure 62. Rectangular Course

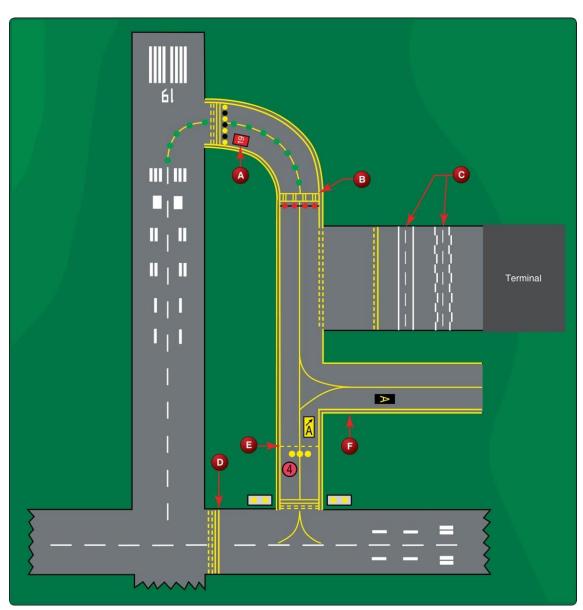


Figure 64. Airport Markings

©ASA

Figure 66. S-Turn Diagram

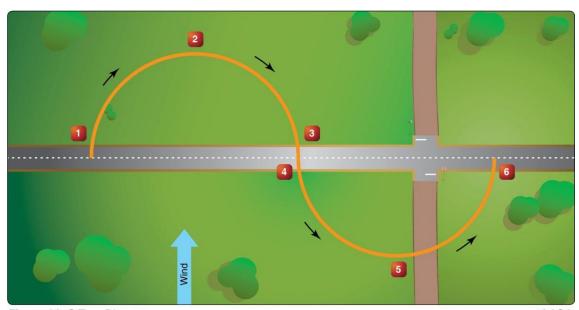


Figure 66. S-Turn Diagram

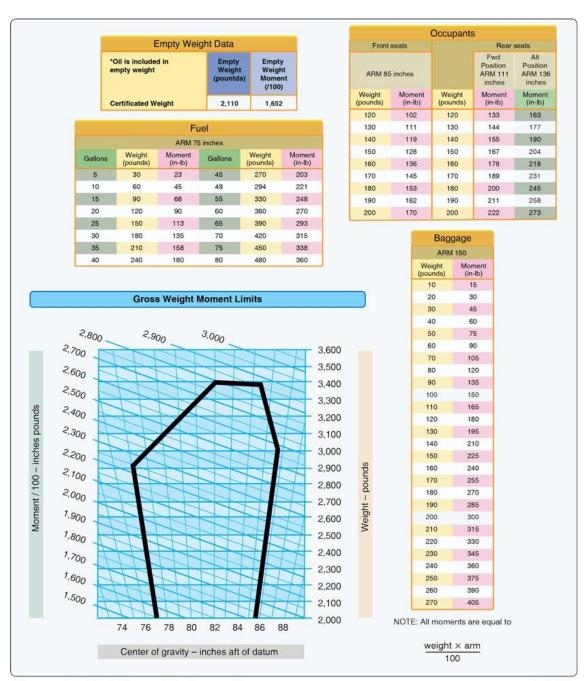


Figure 67. Weight and Balance Chart

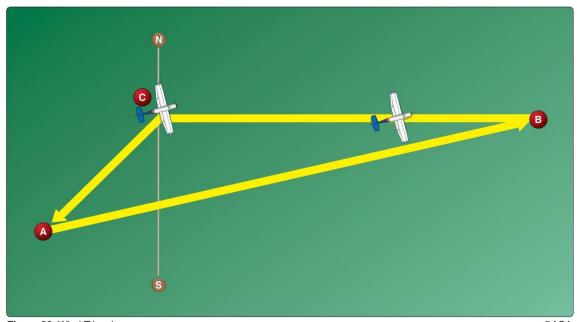


Figure 68. Wind Triangle ©ASA

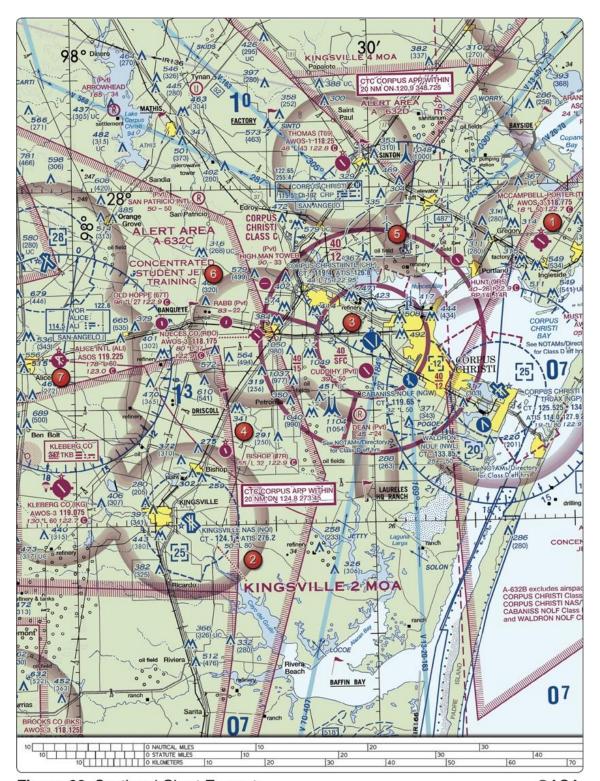


Figure 69. Sectional Chart Excerpt

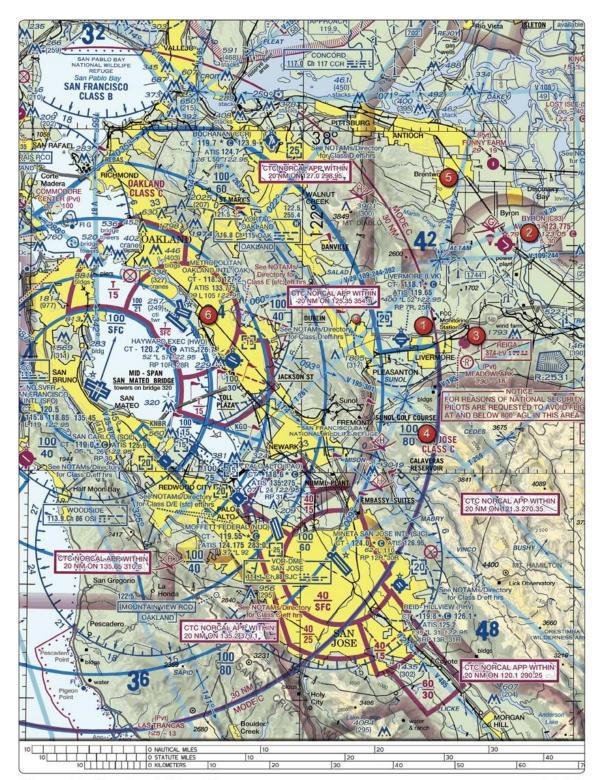


Figure 74. Sectional Chart Excerpt

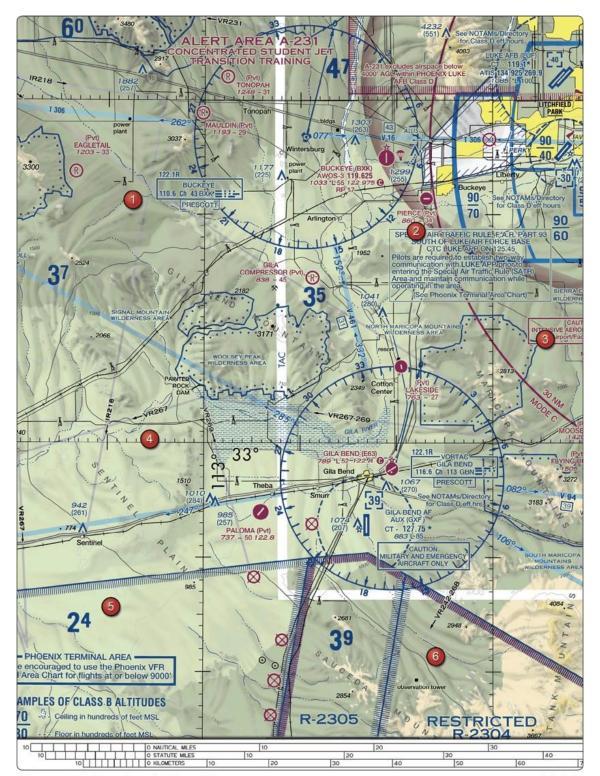


Figure 75. Sectional Chart Excerpt



Figure 82. Altimeter ©ASA

	Peso (LB)	Brazo (IN)	Momento (LB-IN)
Peso vacío	1,495.0	101.4	151,593.0
Piloto y pasajeros	380.0	64.0	222
Combustible (30 gal utilizables, sin reserva)	7 <u>212</u> 0	96.0	222

Figure 3664

	Peso (LB)	Momento/100
Peso vacío	1,350	51.5
Piloto y pasajero delantero	250	222
Pasajeros traseros	400	1222
Equipaje		1
Combustible, 30 gal		
Aceite, 8 gt		-0.2

Figure 3669

	Peso (LB)	Momento/100
Peso vacío	1,350	51.5
Piloto y pasajero delantero	310	10 LESS
Pasajeros traseros	96	200
Equipaje		green green
Combustible, 38 gal		green and a second
Aceite, 8 gt	4443	-0.2

Figure 3670

	Peso (LB)	Momento/100
Peso vacío	1,350	51.5
Piloto y pasajero delantero	340	:
Pasajeros traseros	310	S-000
Equipaje	45	S tate
Aceite, 8 gt		S

Figure 3671

	Peso (LB)	Momento/100
Peso vacío	1,350	51.5
Piloto y pasajero delantero	340	
Combustible (tanque estándar)	Capacidad	557-
Aceite, 8 gt		

Figure 3672

	Peso (LB)	Momento/100
Peso vacío	1,350	51.5
Piloto y pasajero delantero	380	0 0 0
Combustible 48 gal.	288	<u> </u>
Aceite, 8 gt		

Figure 3673