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Private Pilot Airplane

FAA written exam study guide



Sample only Not the full guide, and not for sale.

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Cockpit photograph by Rhys Abel

How to use this guide

The Private Pilot Airplane (PAR) test is required before you can obtain your private pilot certificate. The certificate lets you fly an airplane for personal use and carry passengers, as long as you are not paid to fly.

The full PAR test contains 60 questions from a databank of more than 700 questions. You are allowed 2 hours for the exam and a score of 70% or better is required to pass. With this study guide, a score of 90% or better while completing the exam within 20-30 minutes is easily achievable.

This study guide is divided into four parts.

PART 1

Part 1 has the questions with only the correct answer shown. It is highly recommended you spend the most time on this section. The trick to passing any FAA written exam is rote memorization of the questions and answers. You will learn the fundamentals and principles of all the material later during ground school and self-study lessons. For now, your main focus is to score as high as possible on the PAR exam. The best way to prepare for the written exam is by reading the question and then the correct answer, then moving on to the next question and answer, repeating this process until you've read all of the questions and their correct answers. The idea in doing this is to allow your brain/eyes to associate the correct answer to each question. After you've read through this section several times, you will begin to identify certain key words in both the question and answer which starts making the answers easier to identify.

PART 2

Part 2 has the questions with all three possible answer choices shown. It is recommended you only study this section after you have studied Part 1 enough times to build your memory for identifying the correct answer. You can use this section to give yourself random quizzes to see how well the correct answer "stands out" from the wrong answers.

PART 3

Part 3 has the questions with all three possible answer choices shown and the correct answer is highlighted. You can use this section by having a second person read random questions to you along with the answer choices and they will easily be able to see whether or not you were correct.

PART 4

Part 4 has the images/graphics that accompany the test questions. Some of these graphics may appear to be of low quality, however they are the exact images (resolution and quality) that will be provided to you on the exam.

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Navigation
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Weight and Balance / Performance
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Part 2 Questions with all three answer choices

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Aircraft Systems
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Navigation
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Weight and Balance / Performance
Aeromedical and Emergency

Part 3 All three choices, correct answer highlighted

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Aeromedical and Emergency

Part 4
Figures and diagrams >

This is a sample. It does not include all of the questions and answers in the full version of this study guide.

Order the full guide

Part 1

Read the question, then the correct answer, and move on. Repeat until the answer comes with the question.

Aerodynamics and Aircraft

01

After takeoff, which airspeed would the pilot use to gain the most altitude in a given period of time?

CORRECT ANSWER

A VY

02

(Refer to figure 1.) The acute angle A is the angle of

CORRECT ANSWER

B attack.

Aircraft Systems

03

A precaution for the operation of an engine equipped with a constant-speed propeller is to

CORRECT ANSWER

B avoid high manifold pressure settings with low RPM.

04

(Refer to figure 3.) Altimeter 1 indicates

CORRECT ANSWER

C 10,500 feet.

FARs

05

A 100-hour inspection was due at 3302.5 hours. The 100-hour inspection was actually done at 3309.5 hours. When is the next 100-hour inspection due?

CORRECT ANSWER

C 3402.5 hours.

06

(Refer to FAA-CT-8080-2H, Figure 26, area 2.) The day VFR visibility and cloud clearance requirements to operate over the town of Cooperstown, after departing and climbing out of the Cooperstown Airport at or below 700 feet AGL are

CORRECT ANSWER

A 1 mile and clear of clouds.

Airports and Airspace

07

A below glide slope indication from a pulsating approach slope indicator is a

CORRECT ANSWER

C pulsating red light.

08

(Refer to FAA-CT-8080-2H, Figure 20, area 1.) The NALF Fentress (NFE) Airport is in what type of airspace?

CORRECT ANSWER

B Class E.

Navigation

09

ATC advises, "traffic 12 o'clock." This advisory is relative to your

CORRECT ANSWER

B ground track.

10

(Refer to FAA-CT-8080-2H, Figure 25, area 5.) The navigation facility at Dallas-Ft. Worth International (DFW) is a

CORRECT ANSWER

C VOR/DME.

Weather

11

A nonfrontal, narrow band of active thunderstorms that often develop ahead of a cold front is a known as a

CORRECT ANSWER

B squall line.

12

(Refer to FAA-CT-8080-2H, Figure 17.) What wind is forecast for STL at 12,000 feet?

CORRECT ANSWER

B 230° true at 39 knots.

Weight and Balance / Performance

13

A pilot and two passengers landed on a 2,100 foot east-west gravel strip with an elevation of 1,800 feet. The temperature is warmer than expected and after computing the density altitude it is determined the takeoff distance over a 50 foot obstacle is 1,980 feet. The airplane is 75 pounds under gross weight. What would be the best choice?

CORRECT ANSWER

C Wait until the temperature decreases, and recalculate the takeoff performance.

14

(Refer to FAA-CT-8080-2H, Figure 35.) Determine the approximate manifold pressure setting with 2,450 RPM to achieve 65 percent maximum continuous power at 6,500 feet with a temperature of 36°F higher than standard.

CORRECT ANSWER

C 21.0 inches Hg.

Aeromedical and Emergency

15

A lack of orientation with regard to the position, attitude, or movement of the aircraft in space is defined as

CORRECT ANSWER

A spatial disorientation.

16

A pilot experiencing the effects of hyperventilation should be able to restore the proper carbon dioxide level in the body by

CORRECT ANSWER

A slowing the breathing rate, breathing into a paper bag, or talking aloud.

Part 2

All three choices. The correct one is not marked. Use this after Part 1.

Aerodynamics and Aircraft

01

After takeoff, which airspeed would the pilot use to gain the most altitude in a given period of time?

A VY
B VX
C VA

02

(Refer to figure 1.) The acute angle A is the angle of

A incidence.
B attack.
C dihedral.

Aircraft Systems

03

A precaution for the operation of an engine equipped with a constant-speed propeller is to

A avoid high RPM settings with high manifold pressure.
B avoid high manifold pressure settings with low RPM.
C always use a rich mixture with high RPM settings.

04

(Refer to figure 3.) Altimeter 1 indicates

A 500 feet.
B 1,500 feet.
C 10,500 feet.

FARs

05

A 100-hour inspection was due at 3302.5 hours. The 100-hour inspection was actually done at 3309.5 hours. When is the next 100-hour inspection due?

A 3312.5 hours.

B 3395.5 hours.

C 3402.5 hours.

06

(Refer to FAA-CT-8080-2H, Figure 26, area 2.) The day VFR visibility and cloud clearance requirements to operate over the town of Cooperstown, after departing and climbing out of the Cooperstown Airport at or below 700 feet AGL are

A 1 mile and clear of clouds.

B 1 mile and 1,000 feet above, 500 feet below, and 2,000 feet horizontally from clouds.

C 3 miles and clear of clouds.

Airports and Airspace

07

A below glide slope indication from a pulsating approach slope indicator is a

A pulsating white light.

B steady white light.

C pulsating red light.

08

(Refer to FAA-CT-8080-2H, Figure 20, area 1.) The NALF Fentress (NFE) Airport is in what type of airspace?

A Class C.

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C Class G.

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09

ATC advises, "traffic 12 o'clock." This advisory is relative to your

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B VORTAC.
C VOR/DME.

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11

A nonfrontal, narrow band of active thunderstorms that often develop ahead of a cold front is a known as a

A prefrontal system.
B squall line.
C dry line.

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(Refer to FAA-CT-8080-2H, Figure 17.) What wind is forecast for STL at 12,000 feet?

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A pilot and two passengers landed on a 2,100 foot east-west gravel strip with an elevation of 1,800 feet. The temperature is warmer than expected and after computing the density altitude it is determined the takeoff distance over a 50 foot obstacle is 1,980 feet. The airplane is 75 pounds under gross weight. What would be the best choice?

A Taking off into the headwind will give the extra climb-out time needed.

B Try a takeoff without the passengers to make sure the climb is adequate.

C Wait until the temperature decreases, and recalculate the takeoff performance.

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(Refer to FAA-CT-8080-2H, Figure 35.) Determine the approximate manifold pressure setting with 2,450 RPM to achieve 65 percent maximum continuous power at 6,500 feet with a temperature of 36°F higher than standard.

A 19.8 inches Hg.

B 20.8 inches Hg.

C 21.0 inches Hg.

Aeromedical and Emergency

15

A lack of orientation with regard to the position, attitude, or movement of the aircraft in space is defined as

A spatial disorientation.

B hyperventilation.

C hypoxia.

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A pilot experiencing the effects of hyperventilation should be able to restore the proper carbon dioxide level in the body by

A slowing the breathing rate, breathing into a paper bag, or talking aloud.

B breathing spontaneously and deeply or gaining mental control of the situation.

C increasing the breathing rate in order to increase lung ventilation.

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All three choices, with the correct answer highlighted. Useful when someone else is reading the questions to you.

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(Refer to figure 1.) The acute angle A is the angle of

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- **B avoid high manifold pressure settings with low RPM.**
- C always use a rich mixture with high RPM settings.

04

(Refer to figure 3.) Altimeter 1 indicates

- A 500 feet.
- B 1,500 feet.
- **C 10,500 feet.**

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Figure 1. Lift Vector

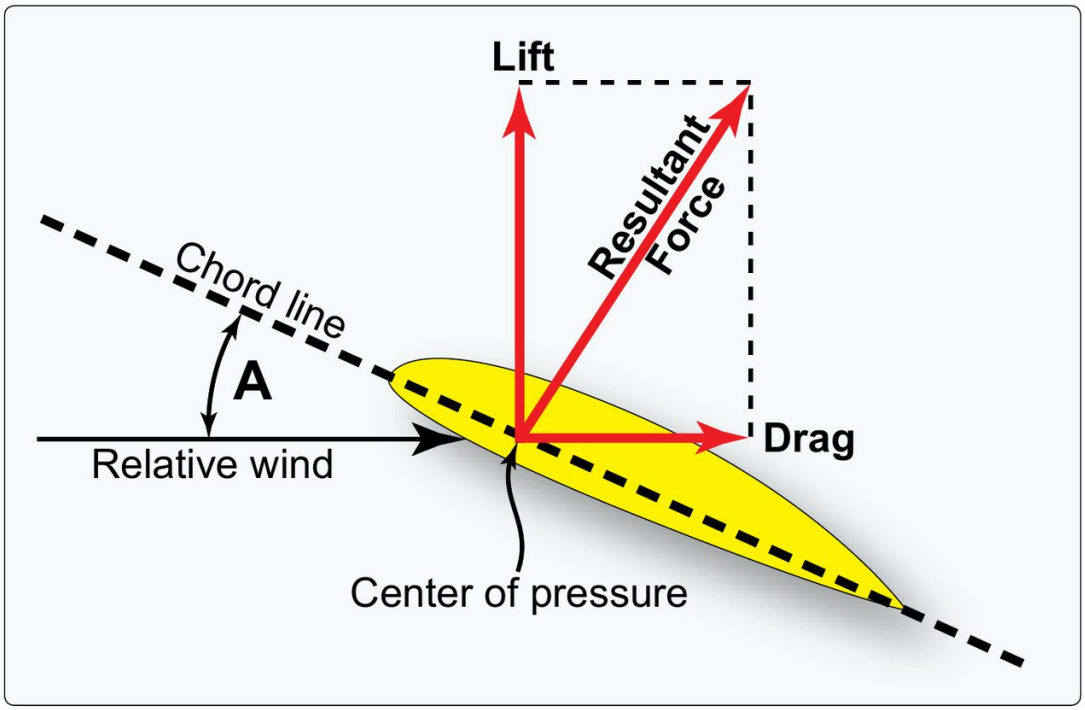


Figure 1. Lift Vector.

Figure 3. Altimeter



Figure 3. Altimeter.

Figure 17. Winds and Temperatures Aloft Forecast

Appendix 2

FB WBC 151745
DATA BASED ON 151200Z
VALID 1600Z FOR USE 1800-0300Z. TEMPS NEG 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



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

Figure 25. Sectional Chart Excerpt

Appendix 2

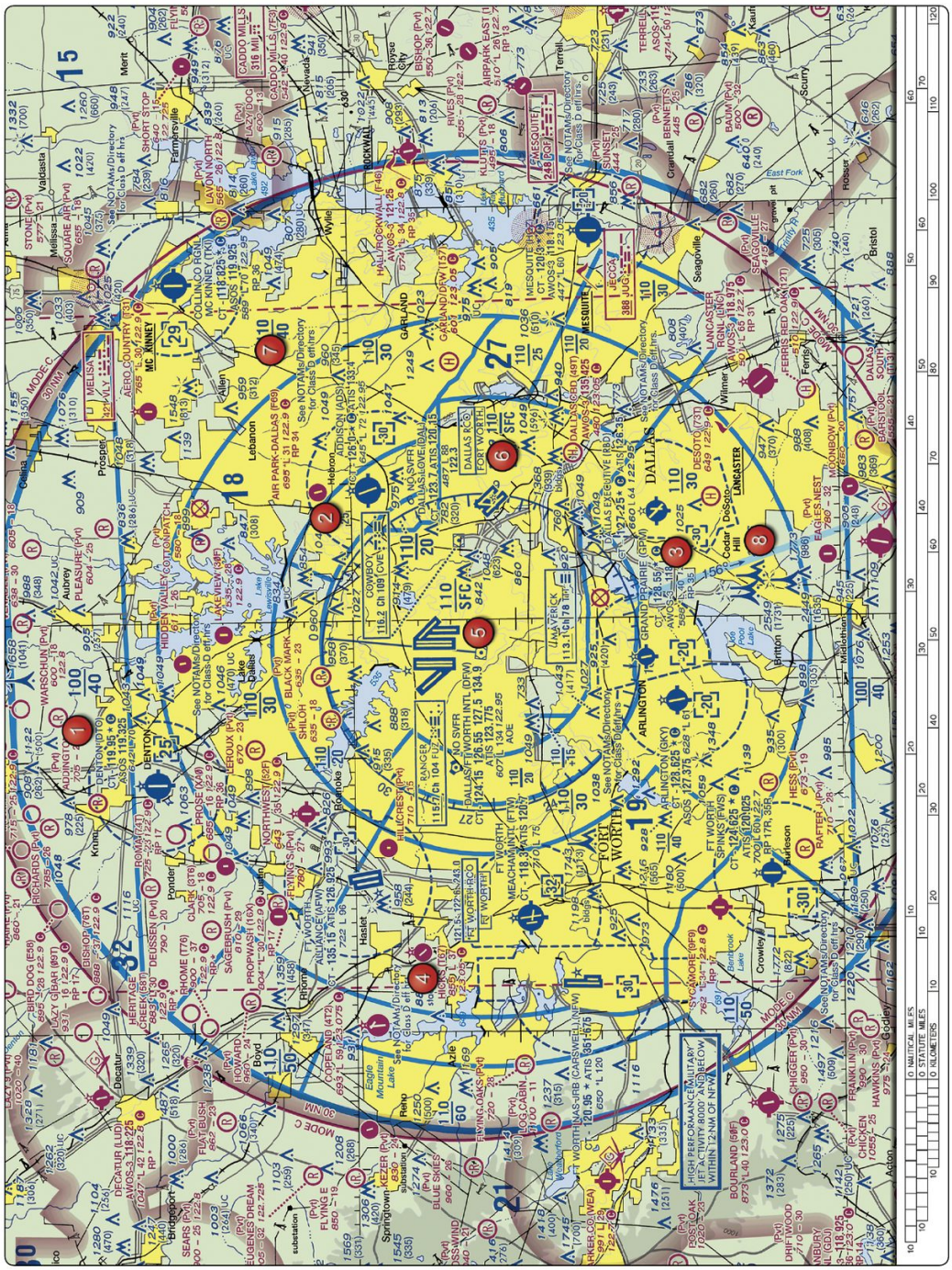


Figure 25. Sectional Chart Excerpt.
NOTE: Chart is not to scale and should not be used for navigation. Use associated scale.

2-24

Figure 26. Sectional Chart Excerpt

Appendix 2

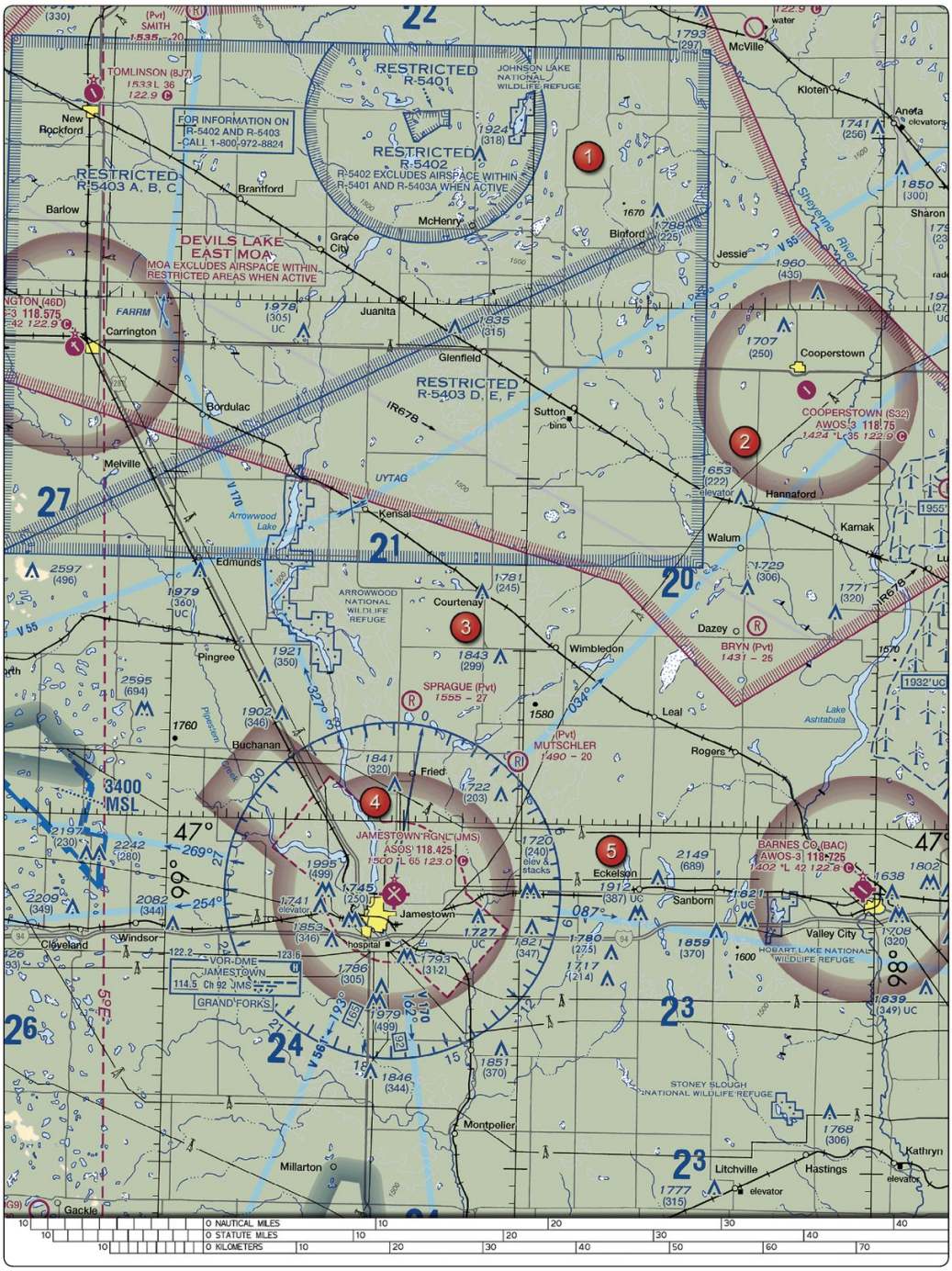


Figure 26. Sectional Chart Excerpt.
NOTE: Chart is not to scale and should not be used for navigation. Use associated scale.

Figure 35. Airplane Power Setting Table

Appendix 2

Cruise power settings

65% Maximum continuous power (or full throttle 2,800 pounds)

Press ALT.	ISA –20 °C (–36 °F)								ISA Standard day (ISA)								ISA +20 °C (+36 °F)							
	IOAT		Engine speed	MAN. press	Fuel flow per engine		TAS		IOAT		Engine speed	MAN. press	Fuel flow per engine		TAS		IOAT		Engine speed	MAN. press	Fuel flow per engine		TAS	
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	MPH
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	176
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	180
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	183
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	185
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	189
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	191
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	188
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	184
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	178

Note: 1. Full throttle manifold pressure settings are approximate.
2. Shaded area represents operation with full throttle.

Figure 35. Airplane Power Setting Table.