
TEMA: 0161 COMMERCIAL PILOT - (CH. 9) NAVIGATION

COD_PREG: PREGUNTA:

RPTA:

5062 What is the maximum bearing error (+ or -) allowed for an operational VOR equipment check when using an approved ground test signal?

A

OPCION A: 4°.

OPCION B: 8°.

OPCION C: 12°.

51221 When must an operational check on the aircraft VOR equipment be accomplished to operate under IFR? Within the preceding

C

OPCION A: 30 days or 30 hours of flight time.

OPCION B: 10 days or 10 hours of flight time.

OPCION C: 30 days.

51222 Which data must be recorded in the aircraft logbook or other record by a pilot making a VOR operational check for IFR operations?

B

OPCION A: VOR name or identification, place of operational check, amount of bearing error, and date of check.

OPCION B: Date of check, place of operational check, bearing error, and signature.

OPCION C: VOR name or identification, amount of bearing error, date of check, and signature.

5306 GIVEN:

B

Pressure altitude 12,000 ft

True air temperature +50°F

From the conditions given, the approximate density altitude is

OPCION A: 11,900 feet.

OPCION B: 14,130 feet.

OPCION C: 18,150 feet.

5307 GIVEN:

B

Pressure altitude 5,000 ft

True air temperature +30°C

From the conditions given, the approximate density altitude is

OPCION A: 7,200 feet.

OPCION B: 7,800 feet.

OPCION C: 9,000 feet.

5308 GIVEN:

B

Pressure altitude 6,000 ft

True air temperature +30°F

From the conditions given, the approximate density altitude is

OPCION A: 9,000 feet.

OPCION B: 5,500 feet.

OPCION C: 5,000 feet.

5309 GIVEN:

B

Pressure altitude 7,000 ft

True air temperature +15°C

From the conditions given, the approximate density altitude is

OPCION A: 5,000 feet.

OPCION B: 8,500 feet.

OPCION C: 9,500 feet.

5466 An airplane descends to an airport under the following conditions: A

- Cruising altitude 6,500 ft
- Airport elevation 700 ft
- Descends to 800 ft AGL
- Rate of descent 500 ft/min
- Average true airspeed 110 kts
- True course 335°
- Average wind velocity 060° at 15 kts
- Variation 3°W
- Deviation +2°
- Average fuel consumption 8.5 gal/hr

Determine the approximate time, compass heading, distance, and fuel consumed during the descent.

OPCION A: 10 minutes, 348°, 18 NM, 1.4 gallons.

OPCION B: 10 minutes, 355°, 17 NM, 2.4 gallons.

OPCION C: 12 minutes, 346°, 18 NM, 1.6 gallons.

5467 An airplane descends to an airport under the following conditions: C

- Cruising altitude 7,500 ft
- Airport elevation 1,300 ft
- Descends to 800 ft AGL
- Rate of descent 300 ft/min
- Average true airspeed 120 kts
- True course 165°
- Average wind velocity 240° at 20 kts
- Variation 4°E
- Deviation -2°
- Average fuel consumption 9.6 gal/hr

Determine the approximate time, compass heading, distance, and fuel consumed during the descent.

OPCION A: 16 minutes, 168°, 30 NM, 2.9 gallons.

OPCION B: 18 minutes, 164°, 34 NM, 3.2 gallons.

OPCION C: 18 minutes, 168°, 34 NM, 2.9 gallons.

5468 An airplane descends to an airport under the following conditions: C

- Cruising altitude 10,500 ft
- Airport elevation 1,700 ft
- Descends to 1,000 ft AGL
- Rate of descent 600 ft/min
- Average true airspeed 135 kts
- True course 263°
- Average wind velocity 330° at 30 kts
- Variation 7°E
- Deviation +3°
- Average fuel consumption 11.5 gal/hr

Determine the approximate time, compass heading, distance, and fuel consumed during the descent.

OPCION A: 9 minutes, 274°, 26 NM, 2.8 gallons.

OPCION B: 13 minutes, 274°, 26 NM, 2.5 gallons.

OPCION C: 13 minutes, 271°, 26 NM, 2.5 gallons.

5469 If fuel consumption is 80 pounds per hour and groundspeed is 180 knots, how much fuel is required for an airplane to travel 460 NM? A

OPCION A: 205 pounds.

OPCION B: 212 pounds.

OPCION C: 460 pounds.

5470 If an airplane is consuming 95 pounds of fuel per hour at a cruising altitude of 6,500 feet and the groundspeed is 173 knots, how much fuel is required to travel 450 NM? A

- OPCION A:** 248 pounds.
OPCION B: 265 pounds.
OPCION C: 284 pounds.
-

5471 If an airplane is consuming 12.5 gallons of fuel per hour at a cruising altitude of 8,500 feet and the groundspeed is 145 knots, how much fuel is required to travel 435 NM? C

- OPCION A:** 27 gallons.
OPCION B: 34 gallons.
OPCION C: 38 gallons.
-

5472 If an airplane is consuming 9.5 gallons of fuel per hour at a cruising altitude of 6,000 feet and the groundspeed is 135 knots, how much fuel is required to travel 490 NM? C

- OPCION A:** 27 gallons.
OPCION B: 30 gallons.
OPCION C: 35 gallons.
-

5473 If an airplane is consuming 14.8 pounds of fuel per hour at a cruising altitude of 7,500 feet and the groundspeed is 167 knots, how much fuel is required to travel 560 NM? A

- OPCION A:** 50 gallons.
OPCION B: 53 gallons.
OPCION C: 57 gallons.
-

5474 If fuel consumption is 14.7 gallons per hour and groundspeed is 157 knots, how much fuel is required for an airplane to travel 612 NM? A

- OPCION A:** 58 gallons.
OPCION B: 60 gallons.
OPCION C: 64 gallons.
-

5475 GIVEN: A

True course 105°
True heading 085°
True airspeed 95 kts
Groundspeed 87 kts

Determine the wind direction and speed.

- OPCION A:** 020° and 32 knots.
OPCION B: 030° and 38 knots.
OPCION C: 200° and 32 knots.
-

5476 GIVEN: B

True course 345°
True heading 355°
True airspeed 85 kts
Groundspeed 95 kts

Determine the wind direction and speed.

- OPCION A:** 095° and 19 knots.
OPCION B: 113° and 19 knots.
OPCION C: 238° and 18 knots.
-

5477 You have flown 52 miles, are 6 miles off course, and have 118 miles yet to fly. To converge on your destination, the total correction angle would be C

- OPCION A:** 3°.
OPCION B: 6°.
OPCION C: 10°.
-

5478 GIVEN: C

Distance off course 9 mi
Distance flown 95 mi
Distance to fly 125 mi

To converge at the destination, the total correction angle would be

- OPCION A:** 4°.
- OPCION B:** 6°.
- OPCION C:** 10°.

5479 True course measurements on a Sectional Aeronautical Chart should be made at a meridian near the midpoint of the course because the C

- OPCION A:** values of isogonic lines change from point to point.
- OPCION B:** angles formed by isogonic lines and lines of latitude vary from point to point.
- OPCION C:** angles formed by lines of longitude and the course line vary from point to point.

5481 GIVEN: C

Wind 175° at 20 kts
Distance 135 NM
True course 075°
True airspeed 80 kts
Fuel consumption 105 lb/hr

Determine the time en route and fuel consumption.

- OPCION A:** 1 hour 28 minutes and 73.2 pounds.
- OPCION B:** 1 hour 38 minutes and 158 pounds.
- OPCION C:** 1 hour 40 minutes and 175 pounds.

5488 An airplane departs an airport under the following conditions: B

Airport elevation 1,000 ft
Cruise altitude 9,500 ft
Rate of climb 500 ft/min
Average true airspeed 135 kts
True course 215°
Average wind velocity 290° at 20 kts
Variation 3°W
Deviation -2°
Average fuel consumption 13 gal/hr

Determine the approximate time, compass heading, distance, and fuel consumed during the climb.

- OPCION A:** 14 minutes, 234°, 26 NM, 3.9 gallons.
- OPCION B:** 17 minutes, 224°, 36 NM, 3.7 gallons.
- OPCION C:** 17 minutes, 242°, 31 NM, 3.5 gallons.

5489 An airplane departs an airport under the following conditions: B

Airport elevation 1,500 ft
Cruising altitude 9,500 ft
Rate of climb 500 ft/min
Average true airspeed 160 kts
True course 145°
Average wind velocity 080° at 15 kts
Variation 5°E
Deviation -3°
Average fuel consumption 14 gal/hr

Determine the approximate time, compass heading, distance, and fuel consumed during the climb.

OPCION A: 14 minutes, 128°, 35 NM, 3.2 gallons.

OPCION B: 16 minutes, 132°, 41 NM, 3.7 gallons.

OPCION C: 16 minutes, 128°, 32 NM, 3.8 gallons.

5490 For night flying operations, the best night vision is achieved when the: B

OPCION A: pupils of the eyes have become dilated in approximately 10 minutes

OPCION B: rods in the eyes have become adjusted to the darkness in approximately 30 minutes

OPCION C: cones in the eyes have become adjusted to the darkness in approximately 5 minutes

5492 When operating VFR at night, what is the first indication of flying into restricted visibility conditions B

OPCION A: Agradual disappearance of lights on the ground

OPCION B: Ground lights begin to take on an appearance of being surrounded by a halo or glow

OPCION C: Cockpit lights begin to take on an appearance of a halo or glow around them

5493 After experiencing a powerplant failure at night, one of the primary considerations should include: C

OPCION A: turning off all electrical switches to save battery power for landing

OPCION B: Maneuvering to and landing on a lighted highway or road

OPCION C: planning the emergency approach and landing to an unlighted portion of an area

5494 When planning for an emergency landing at night on of the primary considerations should include C

OPCION A: landing without flaps to ensure a nose - high landing attitude at touchdown

OPCION B: turning off all the electrical switches to save battery power for the landing

OPCION C: selecting a landing area close to public access, if possible

5495 The ADF is tuned to a radiobeacon. If the magnetic heading is 040° and the relative bearing is 290°, the magnetic bearing TO that radiobeacon would be C

OPCION A: 150°.

OPCION B: 285°.

OPCION C: 330°.

5496 If the relative bearing to a nondirectional radiobeacon is 045° and the magnetic heading is 355°, the magnetic bearing TO that radiobeacon would be A

OPCION A: 040°.

OPCION B: 065°.

OPCION C: 220°.

5497 Ref. Fig. 16 C

If the aircraft continues its present heading as shown in instrument group 3, what will be the relative bearing when the aircraft reaches the magnetic bearing of 030° FROM the NDB?

OPCION A: 030°.

OPCION B: 060°.

OPCION C: 240°.

5498	Ref. Fig. 16 At the position indicated by instrument group 1, what would be the relative bearing if the aircraft were turned to a magnetic heading of 090°?	C
OPCION A: 150°. OPCION B: 190°. OPCION C: 250°.		
<hr/>		
5499	Ref. Fig. 16 At the position indicated by instrument group 1, to intercept the 330° magnetic bearing to the NDB at a 30° angle, the aircraft should be turned	C
OPCION A: left to a heading of 270°. OPCION B: right to a heading of 330°. OPCION C: right to a heading of 360°.		
<hr/>		
5500	Which situation would result in reverse sensing of a VOR receiver?	A
OPCION A: Flying a heading that is reciprocal to the bearing selected on the OBS. OPCION B: Setting the OBS to a bearing that is 90° from the bearing on which the aircraft is located. OPCION C: Failing to change the OBS from the selected inbound course to the outbound course after passing the station.		
<hr/>		
5501	To track outbound on the 180 radial of a VOR station, the recommended procedure is to set the OBS to	C
OPCION A: 360° and make heading corrections toward the CDI needle. OPCION B: 180° and make heading corrections away from the CDI needle. OPCION C: 180° and make heading corrections toward the CDI needle.		
<hr/>		
5502	To track inbound on the 215 radial of a VOR station, the recommended procedure is to set the OBS to	C
OPCION A: 215° and make heading corrections toward the CDI needle. OPCION B: 215° and make heading corrections away from the CDI needle. OPCION C: 035° and make heading corrections toward the CDI needle.		
<hr/>		
5506	Ref Fig. 17 Which illustration indicates that the airplane will intercept the 060 radial at a 60° angle inbound, if the present heading is maintained?	A
OPCION A: 6. OPCION B: 4. OPCION C: 5.		
<hr/>		
5507	Ref. Fig. 17 Which statement is true regarding illustration 2, if the present heading is maintained? The airplane will	A
OPCION A: cross the 180 radial at a 45° angle outbound. OPCION B: intercept the 225 radial at a 45° angle. OPCION C: intercept the 360 radial at a 45° angle inbound.		
<hr/>		
5508	Ref. Fig. 17 Which illustration indicates that the airplane will intercept the 060 radial at a 75° angle inbound, if the present heading is maintained?	B
OPCION A: 4. OPCION B: 5. OPCION C: 6.		
<hr/>		
5509	Ref Fig. 17 Which illustration indicates that the airplane should be turned 150° left to intercept the 360 radial at a 60° angle inbound?	A
OPCION A: 1. OPCION B: 2. OPCION C: 3.		

5510	Ref. Fig. 17 Which is true regarding illustration 4, if the present heading is maintained? The airplane will	C
OPCION A:	cross the 060 radial at a 15° angle.	
OPCION B:	intercept the 240 radial at a 30° angle.	
OPCION C:	cross the 180 radial at a 75° angle.	

5511	Ref. Fig. 18 To intercept a magnetic bearing of 240° FROM at a 30° angle (while outbound), the airplane should be turned	B
OPCION A:	left 065°.	
OPCION B:	left 125°.	
OPCION C:	right 270°.	

5512	Ref. Fig. 18 If the airplane continues to fly on the heading as shown, what magnetic bearing FROM the station would be intercepted at a 35° angle outbound?	B
OPCION A:	035°.	
OPCION B:	070°.	
OPCION C:	215°.	

5513	Ref. Fig. 19 If the airplane continues to fly on the magnetic heading as illustrated, what magnetic bearing FROM the station would be intercepted at a 35° angle?	C
OPCION A:	090°.	
OPCION B:	270°.	
OPCION C:	305°.	

5514	Ref. Fig. 19 If the airplane continues to fly on the magnetic heading as illustrated, what magnetic bearing FROM the station would be intercepted at a 30° angle?	C
OPCION A:	090°.	
OPCION B:	270°.	
OPCION C:	310°.	

5515	The relative bearing on an ADF changes from 265° to 260° in two (2) minutes of elapsed time. If the groundspeed is 145 knots, the distance to that station would be:	C
OPCION A:	26 NM.	
OPCION B:	37 NM.	
OPCION C:	58 NM.	

5516	The ADF indicates a wingtip bearing change of 10° in 2 minutes of elapsed time, and the TAS is 160 knots. What is the distance to the station?	B
OPCION A:	15 NM.	
OPCION B:	32 NM.	
OPCION C:	36 NM.	

5517	With a TAS of 115 knots, the relative bearing on an ADF changes from 090° to 095° in 1.5 minutes of elapsed time. The distance to the station would be	C
OPCION A:	12.5 NM.	
OPCION B:	24.5 NM.	
OPCION C:	34.5 NM.	

5518 GIVEN: C

Wingtip bearing change 5°
Time elapsed between bearing change 5 min
True airspeed 115 kts

The distance to the station is

- OPCION A:** 36 NM.
OPCION B: 57.5 NM.
OPCION C: 115 NM.

5519 The ADF is tuned to a nondirectional radiobeacon and the relative bearing changes from 095° to 100° in 1.5 minutes of elapsed time. The time en route to that station would be A

- OPCION A:** 18 minutes.
OPCION B: 24 minutes.
OPCION C: 30 minutes.

5520 The ADF is tuned to a nondirectional radiobeacon and the relative bearing changes from 270° to 265° in 2.5 minutes of elapsed time. The time en route to that beacon would be C

- OPCION A:** 9 minutes.
OPCION B: 18 minutes.
OPCION C: 30 minutes.

5521 The ADF is tuned to a nondirectional radiobeacon and the relative bearing changes from 085° to 090° in 2 minutes of elapsed time. The time en route to that station would be C

- OPCION A:** 15 minutes.
OPCION B: 18 minutes.
OPCION C: 24 minutes.

5522 If the relative bearing changes from 090° to 100° in 2.5 minutes of elapsed time, the time en route to that station would be B

- OPCION A:** 12 minutes.
OPCION B: 15 minutes.
OPCION C: 18 minutes.

5523 The ADF is tuned to a nondirectional radiobeacon and the relative bearing changes from 090° to 100° in 2.5 minutes of elapsed time. If the true airspeed is 90 knots, th distance and time en route to that radiobeacon would be B

- OPCION A:** 15 miles and 22.5 minutes.
OPCION B: 22.5 miles and 15 minutes.
OPCION C: 32 miles and 18 minutes.

5524 GIVEN: A

Wingtip bearing change 10°
Elapsed time between bearing change 4 min
Rate of fuel consumption 11 gal/hr

Calculate the fuel required to fly to the station.

- OPCION A:** 4.4 gallons.
OPCION B: 8.4 gallons.
OPCION C: 12 gallons.
-

5525 GIVEN: B

Wingtip bearing change 5°
Elapsed time between bearing change 6 min
Rate of fuel consumption 12 gal/hr

The fuel required to fly to the station is

- OPCION A:** 8.2 gallons.
OPCION B: 14.4 gallons.
OPCION C: 18.7 gallons.
-

5526 GIVEN: A

Wingtip bearing change 15°
Elapsed time between bearing change 6 min
Rate of fuel consumption 8.6 gal/hr

Calculate the approximate fuel required to fly to the station.

- OPCION A:** 3.44 gallons.
OPCION B: 6.88 gallons.
OPCION C: 17.84 gallons.
-

5527 GIVEN: A

Wingtip bearing change 15°
Elapsed time between bearing change 7.5 min
True airspeed 85 kts
Rate of fuel consumption 9.6 gal/hr

The time, distance, and fuel required to fly to the station is

- OPCION A:** 30 minutes; 42.5 miles; 4.80 gallons.
OPCION B: 32 minutes; 48 miles; 5.58 gallons.
OPCION C: 48 minutes; 48 miles; 4.58 gallons.
-

5528 While maintaining a constant heading, a relative bearing of 15° doubles in 6 minutes. The time to the station being used is B

- OPCION A:** 3 minutes.
OPCION B: 6 minutes.
OPCION C: 12 minutes.
-

5529 While maintaining a constant heading, the ADF needle increases from a relative bearing of 45° to 090° in 5 minutes. The time to the station being used is A

- OPCION A:** 5 minutes.
OPCION B: 10 minutes.
OPCION C: 15 minutes.
-

5530 While cruising at 135 knots and on a constant heading, the ADF needle decreases from a relative bearing of 315° to 270° in 7 minutes. The approximate time and distance to the station being used is A

- OPCION A:** 7 minutes and 16 miles.
OPCION B: 14 minutes. and 28 miles.
OPCION C: 19 minutes and 38 miles.
-

5531 While maintaining a constant heading, a relative bearing of 10° doubles in 5 minutes. If the true airspeed is 105 knots, the time and distance to the station being used is approximately A

- OPCION A:** 5 minutes and 8.7 miles.
OPCION B: 10 minutes and 17 miles.
OPCION C: 15 minutes and 31.2 miles.
-

5532	When checking the course sensitivity of a VOR receiver, how many degrees should the OBS be rotated to move the CDI from the center to the last dot on either side?	B
OPCION A:	5° to 10°.	
OPCION B:	10° to 12°.	
OPCION C:	18° to 20°.	

5533	An aircraft 60 miles from a VOR station has a CDI indication of one-fifth deflection, this represents a course centerline deviation of approximately	B
OPCION A:	6 miles.	
OPCION B:	2 miles.	
OPCION C:	1 mile.	

5534	Ref. Fig. 20 Using instrument group 3, if the aircraft makes a 180° turn to the left and continues straight ahead, it will intercept which radial?	A
OPCION A:	135 radial.	
OPCION B:	270 radial.	
OPCION C:	360 radial.	

5535	Ref. Fig. 20 Which instrument shows the aircraft in a position where a 180° turn would result in the aircraft intercepting the 150 radial at a 30° angle?	C
OPCION A:	2.	
OPCION B:	3.	
OPCION C:	4.	

5536	Ref. Fig. 20 Which instrument shows the aircraft in a position where a straight course after a 90° left turn would result in the aircraft intercepting the 180 radial?	B
OPCION A:	2.	
OPCION B:	3.	
OPCION C:	4.	

5537	Ref. Fig. 20 Which instrument shows the aircraft to be northwest of the VORTAC?	B
OPCION A:	1.	
OPCION B:	2.	
OPCION C:	3.	

5538	Ref, Fig. 20 Which instrument(s) show(s) that the aircraft is getting further from the selected VORTAC?	A
OPCION A:	4.	
OPCION B:	1 and 4.	
OPCION C:	2 and 3.	

5539	While maintaining a magnetic heading of 270° and a true airspeed of 120 knots, the 360 radial of a VOR is crossed at 1237 and the 350 radial is crossed at 1244. The approximate time and distance to this station are	A
OPCION A:	42 minutes and 84 NM.	
OPCION B:	42 minutes and 91 NM.	
OPCION C:	44 minutes and 96 NM.	

5540	Ref. Fig. 21 If the time flown between aircraft positions 2 and 3 is 13 minutes, what is the estimated time to the station?	A
OPCION A:	13 minutes.	
OPCION B:	17 minutes.	
OPCION C:	26 minutes.	

5541	Ref. Fig. 22 If the time flown between aircraft positions 2 and 3 is 8 minutes, what is the estimated time to the station?	A
OPCION A: 8 minutes. OPCION B: 16 minutes. OPCION C: 48 minutes.		
<hr/>		
5542	Ref. Fig. 23 If the time flown between aircraft positions 2 and 3 is 13 minutes, what is the estimated time to the station?	B
OPCION A: 7.8 minutes. OPCION B: 13 minutes. OPCION C: 26 minutes.		
<hr/>		
5543	Ref. Fig. 24 If the time flown between aircraft positions 2 and 3 is 15 minutes, what is the estimated time to the station?	A
OPCION A: 15 minutes. OPCION B: 30 minutes. OPCION C: 60 minutes.		
<hr/>		
5544	Inbound on the 040 radial, a pilot selects the 055 radial, turns 15° to the left, and notes the time. While maintaining a constant heading, the pilot notes the time for the CDI to center is 15 minutes. Based on this information, the ETE to the station is	B
OPCION A: 8 minutes. OPCION B: 15 minutes. OPCION C: 30 minutes.		
<hr/>		
5545	Inbound on the 090 radial, a pilot rotates the OBS 010° to the left, turns 010° to the right, and notes the time. While maintaining a constant heading, the pilot determines that the elapsed time for the CDI to center is 8 minutes. Based on this information, the ETE to the station is	A
OPCION A: 8 minutes. OPCION B: 16 minutes. OPCION C: 24 minutes.		
<hr/>		
5546	Inbound on the 315 radial, a pilot selects the 320 radial, turns 5° to the left, and notes the time. While maintaining a constant heading, the pilot notes the time for the CDI to center is 12 minutes. Based on this information, the ETE to the station is	B
OPCION A: 10 minutes. OPCION B: 12 minutes. OPCION C: 24 minutes.		
<hr/>		
5547	Inbound on the 190 radial, a pilot selects the 195 radial, turns 5° to the left, and notes the time. While maintaining a constant heading, the pilot notes the time for the CDI to center is 10 minutes. Based on this information, the ETE to the station is	A
OPCION A: 10 minutes. OPCION B: 15 minutes. OPCION C: 20 minutes.		
<hr/>		
5551	How should the pilot make a VOR receiver check when the aircraft is located on the designated checkpoint on the airport surface?	B
OPCION A: Set the OBS on 180° plus or minus 4°; the CDI should center with a FROM indication. OPCION B: Set the OBS on the designated radial. The CDI must center within plus or minus 4° of that radial with a FROM indication. OPCION C: With the aircraft headed directly toward the VOR and the OBS set to 000°, the CDI should center within plus or minus 4° of that radial with a TO indication.		
<hr/>		
5552	When using VOT to make a VOR receiver check, the CDI should be centered and the OBS should indicate that the aircraft is on the	C
OPCION A: 090 radial. OPCION B: 180 radial. OPCION C: 360 radial.		
<hr/>		

5553 When the CDI needle is centered during an airborne VOR check, the omnibearing selector and the TO/FROM indicator should read **B**

OPCION A: within 4° of the selected radial.

OPCION B: within 6° of the selected radial.

OPCION C: 0° TO, only if you are due south of the VOR.
