



Holding a pilots licence at any level is a privilege, not a right. As the holder of a pilots licence therefore, it is your responsibility to honour this privilege by taking it seriously, and keeping your knowledge up to date, and updating it as opportunities present themselves. The Biennial Flight Review is one such opportunity. The questions below are designed to refresh knowledge you would have originally gained during flight training but perhaps haven't used since, and update your knowledge on new rules, or flying techniques, introduced since your last BFR. The BFR is by definition a dual exercise, so there is no pass/fail as such, but you must demonstrate competence in all the exercises. The BFR does not need to be completed in one flight, but as many flights as is necessary to complete the details.

This year Terrain Awareness Training has been introduced into the PPL syllabus, compulsory from mid 2011, and Threat and Error Management (TEM) training is being formalised, and has become an assessed competency.

Information on Mountain Flying/Terrain Awareness is available from the 3 CAA CD/DVDs and our mountain flying ground course.

CAAs policy on TEM is at www.caa.govt.nz/pilots/Policy_TEM.pdf which gives guidance to students on what is required. (This link is not clickable, go to the website for a clickable link)

The CAA form for the BFR is on www.caa.govt.nz/Forms/24061-11.pdf

As an open book exam, any questions not able to be answered will be discussed during the BFR, as well as any other questions you may have. Please download the NOTAMS and weather for the day of your flight to present, along with your licence and up to date logbook.

I hope you find the BFR process beneficial and enjoyable, and gives you confidence in your future flying.

Cheers Bill.

Meteorology

METAR NZHN 202300Z 210/12KT 40KM HZ SCT030 BKN 050 12/11 Q1030
TEMPO 2305 500M FG

Using the above weather statement, answer the following questions.

1. What is the pressure altitude?
2. What is the crosswind and wind components on runway 18?
3. What type of weather is it? How often are they issued?
4. What date and time was the report issued?
5. What is the wind direction and speed? Is the direction °M or °T?

6. What is the visibility? What is causing the reduced visibility?
7. What is the cloud amount and base?
8. What is the temperature? What is the dewpoint?
9. What does Q1013 mean?
10. Translate into plain language the "TEMPO" statement.
11. Using the conditions in the METAR, what are the takeoff and landing distances required at NZHN?

Aircraft Technical Knowledge

12. Fill the gaps in the table below. (PA-18, If using your own a/c change as needed.)

Item	Weight	Arm	Moment
A/C empty weight	lbs		
Pax	170 lbs		
Pilot	170 lbs		
Bags	30 lbs		
Fuel	lbs		
MAUW (Max)	lbs		
Fuel	litres		
Fuel	hours		

13. With the load above, where does the CofG fall?

14. Fill in the gaps in the table below

Track °T	Wind °T	VAR	Hdg °M	Dev °M	Hdg °C	G/S	Dist	EET
010	330/12	22E	?	3W	?	85	77	?

15. What does the white arc on the ASI signify? What is the range for your aircraft?
16. What does the green arc on the ASI signify? What is the range for your aircraft?
17. What does the red line on the ASI mean? What is its value for your aircraft?

18. What do the following stand for and what are their values? (specify the relevant figures for your aircraft at MAUW).

VFE _____ mph _____

VA _____ mph _____

VNO _____ mph _____

VY _____ mph _____

VX _____ mph _____

VSO _____ mph _____

VS1 _____ mph _____

19. What is the crosswind component of the aircraft? Is this figure considered a maximum? _____

20. Which instruments work using the Pitot Static System?

21. What would happen to these instruments if the static system were blocked before takeoff?

22. The propeller spinner serves what purpose. Can the aircraft be flown without a spinner fitted?

23. List (in order) the actions you would take in the event of an engine fire while starting the engine:

24. An aircraft leaves an aerodrome at 10:10 hours to fly to another airfield 120nm away. The calculated groundspeed is 105 kt. What will be the ETA at the destination?

25. Detail your actions if you were to observe a low oil pressure and high oil temperature:

26. What are the symptoms of carburettor icing?

27. Is smoking permitted in the aircraft?

28. As pilot in command of the aircraft it is your responsibility to ensure that your passengers are completely familiar with the aircraft and its equipment. What details would you include in a pre-flight passenger briefing?

29. Detail in the order in which you would execute them, the actions you would take in the event of a cabin fire during flight.

30. For an aircraft that has a fuel consumption of 40 litres/hr. Total useable fuel of 182 litres. Ground speed of 115 kt. What is its range? (including legal reserves)

31. On a cross country flight, you work out that you have travelled 18 miles in 7 minutes. What has been your groundspeed? You calculate that your distance to your destination is a further 45 miles. What will be your elapsed time to your destination.

32. If an aircraft has a "utility category" it would permit what sort of manoeuvres?

33. List (for your aircraft) the actions you would take if you encountered a flap failure while approaching the aerodrome for landing. If you had a choice of runways which one would you choose? Why?

34. Describe in detail the immediate actions following an engine failure at altitude.

35. What means exists (if any) to reset the alternator if it drops off line?

36. Describe the actions to take should an electrical burning smell be found in the cockpit:

37. Where is the fire extinguisher located? Describe the method of its operation:

38. The steeper the turn, the (higher/lower) the stall speed.

39. The compass installed in an aircraft is affected by other magnetic fields as well as the magnetic field of the earth. It may therefore be deflected from pointing directly at magnetic north, the amount of this deflection being called
Headsets and other metal equipment that have their own magnetic fields should be
..... from the compass.

40. A popped circuit breaker should not be reset more than time(s).

Threat and Error Management

41. What is the checklist commonly used to determine if you are fit to fly?

42. What is a checklist you could use when solving inflight problems?

43. Name three threats you might consider prior to flight. How would you mitigate those threats?

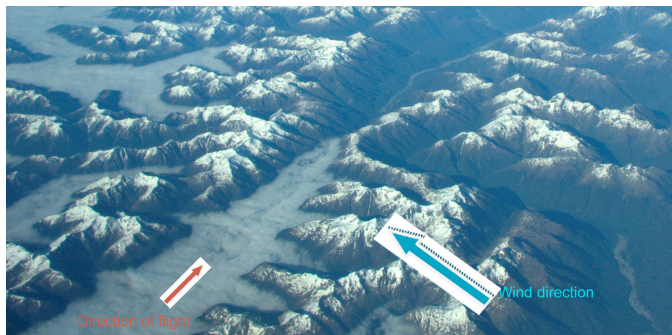
44. Name three threats you might encounter in flight. How would you mitigate those threats?

45. Name three errors that may occur in flight

46. Name three undesired states that may occur in flight

Mountain Flying/Terrain Awareness

Using the attached photos, answer the following questions.



47. Which side of the valley would be the smoothest air (wind less than 15 kts)?

48. Which side of the valley would be the correct side for opposite direction traffic?

49. Assuming you fly on the smooth side, if you decide to reverse direction, would the radius of turn be smaller or larger than in no wind?

50. What other techniques could you use to ensure the smallest radius of turn?



- 51. Which direction would you cross this saddle?
- 52. If terrain on the other side of the saddle is disappearing as you approach the saddle, is it safe to cross?
- 53. What things in this photo could indicate to you what the wind direction is?



Law & Rules

- 54. You are heading 180°M, which of the following heights can you fly at under VFR?
 - a. 2900 ft AMSL, 2000 ft AGL, 4500 ft (1/7/10)
 - b. 3200 ft AMSL, 3100 ft AGL, 4500 ft
 - c. 800 ft AMSL, 900 ft AGL, 5500 ft
- 55. If you see an aircraft approaching head on at the same altitude, which way to do you turn?

- 56. Name 3 documents that must be carried on VFR flights within NZ?

- 57. What are the currency requirements for a PPL/RPL to carry passengers?

- 58. What are the privileges of a PPL/RPL? (as appropriate)

59. What are the limitations of a PPL/RPL? (as appropriate)
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60. Name 3 elements of the CofA that you must check prior to flight.
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61. Name 3 elements of the Technical Log that you must check prior to flight.
-
62. Name 2 elements of the Flight Manual that you must check prior to flight.
-
63. What is the Performance Group Rating for your aircraft? _____ What Performance Group Rating must aerodromes you use meet? _____ What are your actions if you wish to land on a shorter runway?
-
64. What time will ECT be at Hamilton on 21st of July, local time?
-
65. On the readability scale, what do 1, 3 and 5 mean?
-
-
-
66. What frequency would you use to talk to Information when operating in the Gisborne area?
-
67. While joining overhead an aerodrome you notice a signal on the ground in the form of a red and white cone with the point of the cone pointing into the wind. What does it denote?
-
-
68. What is a MBZ? What are the requirements for entry into an MBZ? Give an example of an MBZ in the North Island: What are the upper and lower limits of the airspace you chose?
-
-
69. For approval to enter M200 who would you contact?
-

70. What is the upper limit of the Gisborne Control Zone?

71. How is Transponder Mandatory Airspace depicted on charts?

72. If you have filed a VFR Flight Plan, when will search and rescue action be initiated?

73. What means are available to the pilot to file, amend and cancel a VFR Plan?

74. What are the Special VFR Minima in a Control Zone? Can you request SVFR?

75. Can a NORDO aircraft operate in a Control Zone where SVFR conditions exist? Why?

76. In Class D airspace what are VFR aircraft separated from?

77. When operating at an uncontrolled airfield what cloud base and visibility should exist.

78. When would 7600 be useful to the pilot?

79. What is the upper limit of D225? What are the requirements to enter a Danger Area?

80. Where would you look to find the hours of operation of Rotorua ATC?

81. What is the minimum height you may fly over Auckland City?

82. What frequency would you use at New Plymouth if ATC is not in attendance?

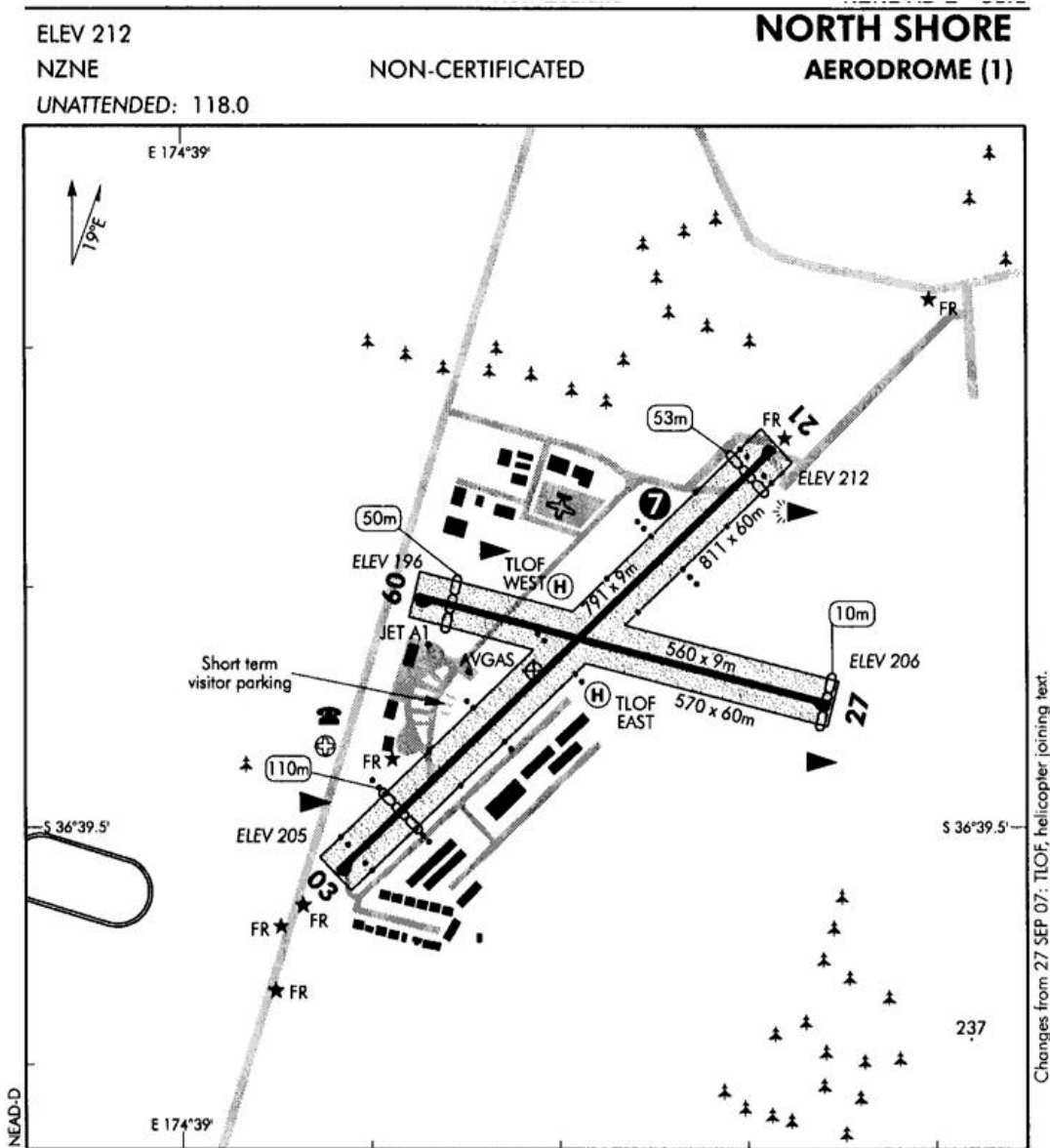
83. The holder of a private pilots licence who has not demonstrated continued competency to a flight examiner in an aircraft of the same type may not act as pilot in command of an aircraft by day unless the P in C has completed?

- a. 5 hours pilot in command within the last 12 months.
- b. Not less than four takeoffs and four landings as P in C in an aircraft of the same type within the last six months.
- c. No less than three takeoffs and three landings as P in C in an aircraft of different types within the last 6 months.
- d. Not less than three takeoffs and three landings as P in C in an aircraft of the same type within the last 90 days.

84. When planning a VFR flight in an aeroplane, you must plan to have (45 / 30 / 25) minutes of fuel on board upon reaching the first point of intended landing by day and (45 / 30 / 25) by night.

85. Following a radio failure in your aircraft you are given a red flashing light from the tower when you are downwind at a controlled aerodrome, this signal means?

86. You are approaching North Shore airfield from the west. Draw on the chart below the standard overhead rejoin procedure if the wind is coming from the 070°T 15kt.



North Shore aerodrome is one of the busiest airfields in the country with a high level of fixed wing and helicopter training traffic, commercial fixed wing and helicopter operations. To facilitate the safe operation of all aircraft at North Shore aerodrome the following procedures should be complied with.

1. Joining: Due to traffic density, fixed wing aircraft are requested to use Standard Overhead Joining procedures.
Straight in approaches for any runway by fixed wing aircraft should not be conducted unless engaged on a GNSS approach.