

2010

INSTRUMENT RATING TEST

OPEN BOOK EXAM

Prepared for:

1 Canadian Air Division Instrument Check Pilot

As this is an OPEN BOOK examination, the candidate will require the following publications:

- B-GA-100, Books 1 and 2, National Defence (Canadian Forces) Flying Orders
- 1 Canadian Air Division Orders, Vol 2, Flying Orders
- A-OA-148-001/AG-000, Manual of Instrument Flying
- GPH 204A, Flight Planning and Procedures
- GPH 200, Terminal Instrument Approach Procedures
- GPH 205, Canada Flight Supplement
- GPH 206/207, Enroute Charts
- US Aeronautical Information Manual
- GPH 270

INSTRUCTIONS

1. Write your SN, Rank, Name, Unit and Date in the space provided.
2. Check this examination to ensure it is complete and legible. There are 59 questions.
3. The examination consists of short answer and multiple-choice questions.
4. Answer questions as per the current issue of the above publications.
5. There are no marks allotted or passing standards set. Each incorrect response will be corrected to 100% in your presence.
6. Following this examination, you will be required to complete a closed book examination based on information contained in the B-GA-100, 1 Cdn Air Div Orders Vol 2, and GPH 204A.

SN _____ RANK _____ NAME _____

UNIT _____ DATE _____

EXAMINER _____

B-GA-100, National Defence Flying Orders

1. To act as a crew member of a Canadian Forces (CF) aircraft, personnel shall:

2. Define the term Aircraft Commander:

3. What landing arrangements must be made regarding customs and immigration for international flights?

4. For flights to or from locations where communications facilities are inadequate for filing a flight plan and/or an arrival report within one hour after landing, what should a pilot do in lieu of filing a flight plan?

5. State the minimum fuel requirements for IFR flights requiring a designated alternate aerodrome your aircraft type in accordance with B-GA-100 and 1 Cdn Air Div Orders.

6. ATC is a service provided to maintain a safe and expeditious flow of air traffic. This service is mainly accomplished by means of clearances and instructions issued to aircraft pilots by ATC agencies. Should an emergency or safety consideration make compliance impracticable, the pilot shall do one of the following:

7. Prior to entering a control zone under VFR, the pilot shall call the appropriate air traffic control unit with what information?

8. For VFR OTT operations, what weather minima, based on a valid International Aerodrome Forecast (TAF), must be forecast at destination?

9. Aerodrome weather forecasts, based on a valid TAF, must factor in the terms BECMG, TEMPO, or PROB when considering weather forecasts for a destination and determining the requirement for an alternate, or the suitability of an aerodrome as an alternate. What forecast minima conditions must be met for the terms TEMPO and PROB when considering destination and alternate?

10. The lowest ceiling and visibility for an alternate aerodrome with a single published non-precision approach procedure serving the landing runway is:

15. Flying duties are forbidden for at least _____ following the administration of a local or regional anaesthetic, e.g. an anaesthetic used for minor lacerations or dental procedures.

16. What amount of contamination adhering on CF aircraft critical surfaces is permissible for take off?

17. The CFIR written examinations on Air Regulations and Procedures and Meteorology must be completed successfully before the instrument flight test is attempted. The written examinations may be completed within the _____ period prior to the expiry date of an instrument rating.

1 Canadian Air Division Orders, Vol 2, Flying Orders

18. The 1 Canadian Air Division (1 Cdn Air Div) Flying Orders supplement those in B-GA-100-001/AA-000, Flying Orders. To whom do these flying orders apply?

19. It is the responsibility of military personnel to report aviation infractions. What infractions are involved?

20. Unless otherwise restricted by Aircraft Operating Instructions (AOIs), aircraft other than rotary-wing aircraft and aircraft equipped with skis or intermediate flotation tires shall not take-off from runways covered by more than _____ of slush, wet snow or water.

21. Explain the terms crew duty day and crew rest.

22. You intend to fly an NDB (GNSS) overlay approach using GNSS, and see that the GNSS will give you advisory vertical guidance. Can you use this vertical guidance, and if so, are there any restrictions to its use?

23. Take-off requirements, as per B-GA-100-001/AA-000, Flying Orders stipulate that take-offs are not permitted unless the reported ceiling and visibility/RVR are equal to or above the lowest usable HAA/HAT and visibility for a usable published approach to a usable landing runway at the departure aerodrome. Category I/Restricted (CAT I/R) take-off minima, the minimum take-off actual wx shall not be less than:

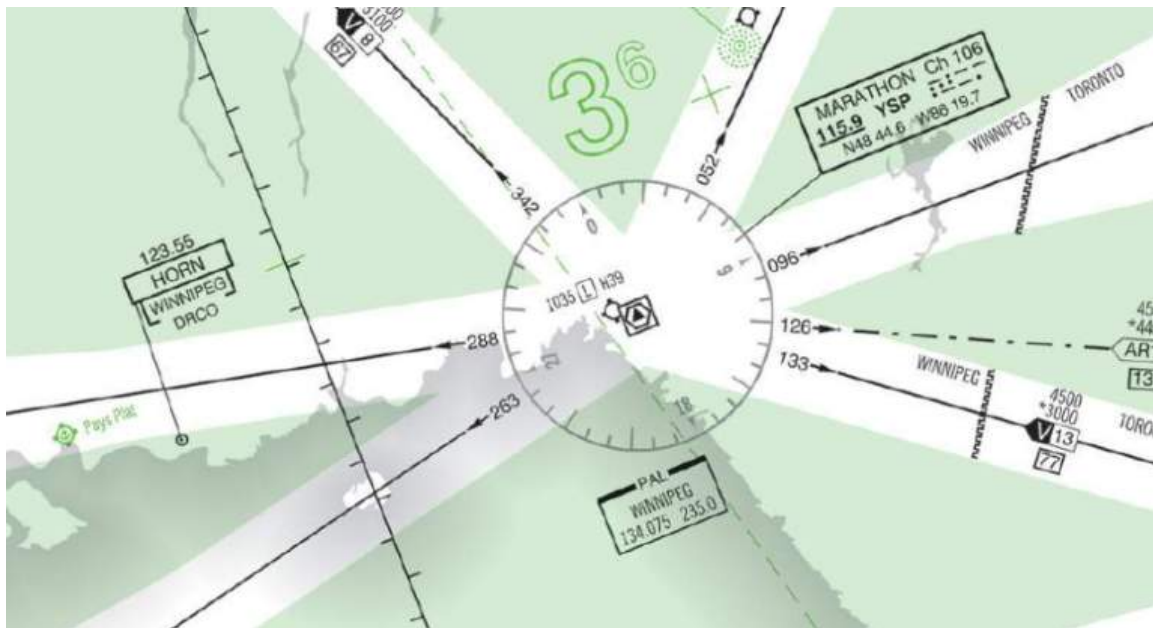
24. Who and when can actual instrument flying time be logged?

25. All pilots will hold a restricted instrument rating for their aircraft type until they have met what criteria? May you use a flight simulator for partial actual credit?

A-OA-148-001/AG-000, Manual of Instrument Flying

26. Under what weather conditions will a Nav Canada operated VASIS be turned off? Why?

27. Some VORs can be used to relay voice transmissions. You are low level on the Victor airway west of Marathon. Can you get voice info from the YSP facility?



28. What is the meaning of the symbol *No PT* on charts?

29. Define "Required Visual Reference" and give 3 examples.

GPH 204A – Flight Planning and Procedures

30. Information on all Canadian CYA/CYD/CYR airspace may be found where? Where is it contained and how often does it get published?

31. What, if any, services are available when you "Cancel IFR"?

32. For noise abatement procedures, are pilots obligated to accept the landing or takeoff runway indicated by the tower controller? Explain.

33. If you were conducting an IFR flight to a point and then proceeding VFR to your destination, what letter would you insert on your flight plan under "Flight Rules"?

34. Where holding position markings are not visible or have not been established, aircraft shall hold a minimum of _____ ft from the edge of the runway in use.

35. Standard circuit pattern at controlled/uncontrolled airports is _____ hand unless published otherwise.

36. If a helicopter is cleared to "Air Taxi", at what airspeed would you expect to see the helicopter moving?

37. For aircraft operating within an area to which an MF is applicable, what are the two main operating requirements?

38. Must a pilot read back the complete IFR clearance if departing from a controlled airport; a SID is part of the clearance and cleared as filed?

39. What must a pilot departing IFR do if the aircraft performance is less than the required climb gradient?

DEPARTURE CLIMB RATE V/V (FPM)								
GROUND SPEED	90	120	140	160	180	200	250	300
210 FT/NM	320	420	490	560	630	700	880	1050

OR

Rwy 30 - ½ - Minimum CLB gradient
210 ft/NM to **1500**. No RIGHT
turns below **1800**.

SPEC VIS - CLB visual to **1500**.
No RIGHT turns below **1800**.

40. When conducting an IFR training flight into the United States from Canada what are the consequences of conducting a touch-n-go at a small airport in lieu of a low approach?

41. a. Can you file 3 consecutive IFR flight plans within Canadian airspace if they take place within a 24 hour period?

YES/NO

b. Are there any restrictions if your last two legs of the flight will be from FAA controlled airports?

42. You are about to start the last leg of your long journey home and your clearance from this Northern Ontario airport reads "Cleared to destination, SID 2 departure, squawk 5146". You are about to depart when tower advises that there is an amendment to your clearance and requests that for traffic, you climb on a heading of 280 instead of the SID heading of 312.

a. Does this cancel the rest of the SID?

YES/NO

b. Does ATC take responsibility for obstacle and terrain clearance on this revised heading?

YES/NO

43. Departure procedures for Dryden Regional Rwy 12 states "Rwy 12-1/2-CLB 710 ft/NM to 1600 BPOC or SPEC VIS - CLB visual to 1600 BPOC." Runway heading is 115 degrees, and aerodrome elevation is 1,354 ft MSL. What heading do you fly on departure? _____? When can you resume a climb gradient of 200 ft/NM?

_____. When can you turn on course?

44. How are pilots operating an aircraft in RNAV mode on VOR or NDB airways expected to complete airway turns? Why might this be difficult to achieve?

45. What communication procedures upon arrival at uncontrolled aerodromes within an MF area shall be followed by pilots of radio-equipped aircraft and should also be followed by pilots at aerodromes with ATFs?

GPH 205 Canada Flight Supplement

46. You are conducting a medevac into Prince Rupert, BC with an ETA of 1230Z.

a. Who should you contact for airport advisory and on what frequency?

b. Who should you contact for weather information and on what frequency for the next leg of your flight to Comox?

47. What is the preferred low level IFR routing from London, ON to Toronto/City Centre and what is the significance of the bracketed number?

48. What are the co-ordinates for the VIXUN reporting point?

GPH 200 Instrument Procedures

49. In the minima box, what does the following represent?

1000 (547) 1¼

- a. The MDA is 1000 ft AGL, 547 ft ASL and the advisory visibility is 1¼ SM.
- b. The MDA is 1000 ft ASL and the advisory visibility is 1¼ NM.
- c. These numbers represent the required ceiling and visibility to attempt the approach.
- d. The MDA is 1000 ft ASL, 547 ft AGL and the advisory visibility is 1¼ SM.

50. If you were flying an approach at an indicated airspeed of 125 KTS, your category of aircraft would be?

- a. CAT "A"
- b. CAT "B"
- c. CAT "C"
- d. CAT "D"
- e. CAT "E"

51. Using Annex A, you are 20 NM Southeast of the XS NDB. Your clearance is: "XXXX 17 is cleared to the Prince George airport for the NDB A approach. How would you transition to the approach?

- a. Descend to 6100 ft direct the XS beacon. Upon crossing the beacon, enter the proc-turn race-track pattern and descend to 5400 ft.
- b. Descend to 8000 ft direct the XS beacon. Upon crossing the beacon, enter the race-track pattern and shuttle to 5400 ft and complete the proc-turn.
- c. Maintain 8000 ft proceed direct the YXS VOR descend to 5400 ft via the transition to the XS beacon. Then continue descent to 5400 ft on the proc-turn.
- d. Descend to 8000 ft proceed direct the "XS" beacon. Enter the proc-turn and descend to 3500 ft.

GPH 206/207 En route Charts

52. You are flying from Dryden to Thunder Bay on the LF/MF G1 airway. What is your track out of Dryden and what is your track into Thunder Bay?

- a. 127 degrees magnetic, 123 degrees magnetic;
- b. 127 degrees True, 123 degrees True;
- c. 123 degrees magnetic, 127 degrees magnetic; or
- d. 123 degrees True, 127 degrees True

53. What is the significance of the pointed end of the box around G1 in the previous question?

GPH 270 and US FAR/AIM

54. Where are graphical illustrations of the US approach lighting symbols located?
- a. US IFR Supplement
 - b. US Approach plates after the index (Both High and Low approach books)
 - c. Flight Information Handbook, Section B
 - d. GPH 270, Chap. 5

55. **ILS OR LOC RWY 31 or ILS or LOC/DME RWY 13, St. Cloud Regional (STC), US Low Vol. 12**

What does this symbol mean after the UNICOM frequency on the ILS or LOC RWY 31 and what types does it control?



56. What does the following symbol mean on the ILS or LOC RWY 31 approach plate at St Cloud Regional?



57. What is the meaning of this symbol and what is the associated procedure for St. Cloud Regional?



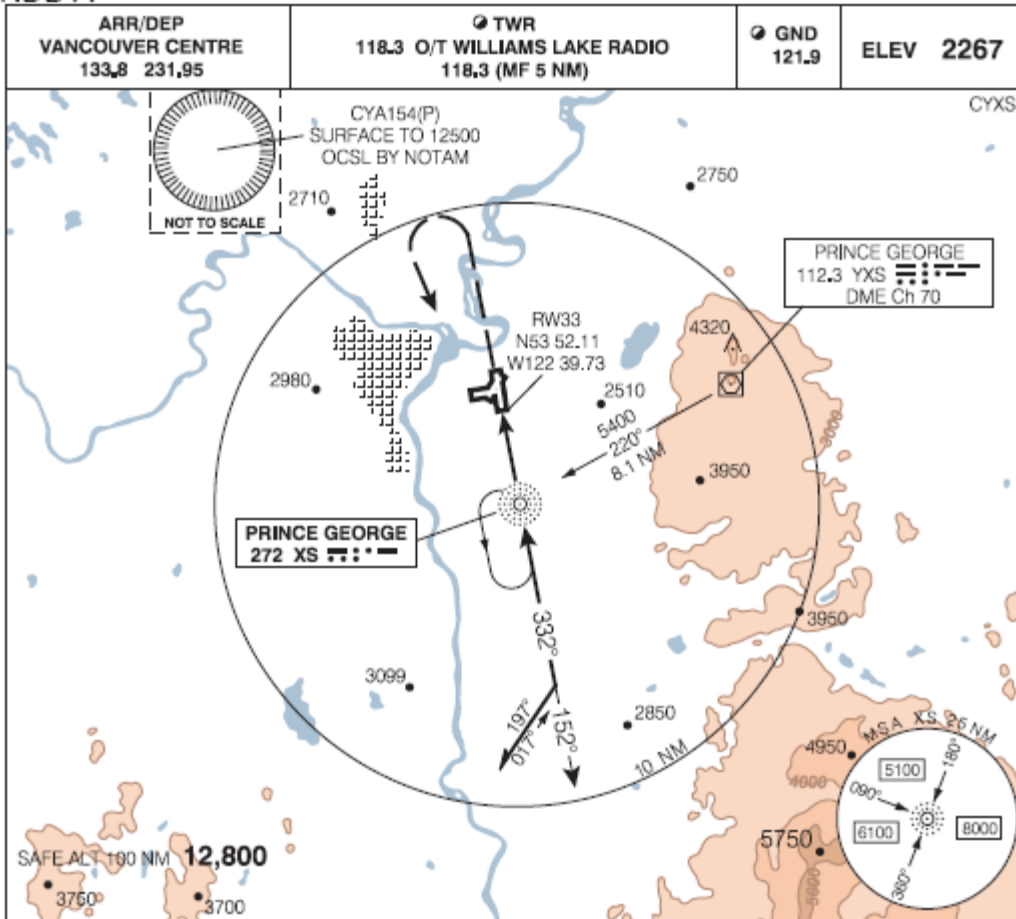
58. If you were to file from Travis AFB, CA to McGuire AFB, NJ which flight plan form would you file with ATC and where would you find information on filling out this form?

59. When you are cleared for an approach in the US, you can descend to the Minimum Sector Altitude or Emergency (100nm) Safe Altitude without specific clearance from ATC.

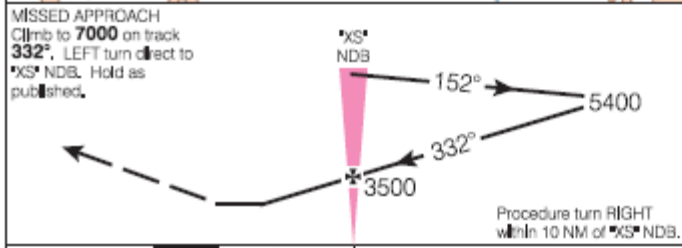
- a. True
- b. False

ANNEX A

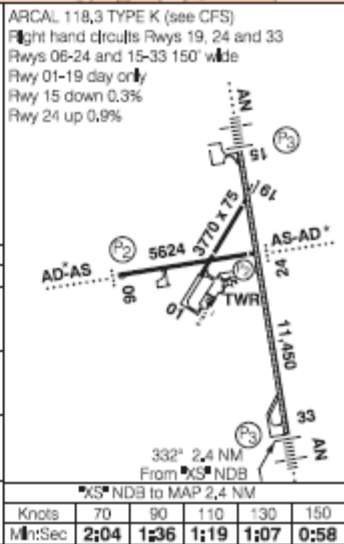
NDB A



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CATEGORY	A	B	C	D
CIRCLING	2880	(613)	2	



NDB A

EFF 27 AUG 09

CHANGE: Landing chart

535303N 1224039W

VAR 21°E

PRINCE GEORGE BC
PRINCE GEORGE
NAD83