

Navigation III Plotting Exercise – Muskoka > Killaloe VOR > Pembroke Airport

(a) Using VNC Chart 5000 draw a track connecting the Muskoka Airport (**CYQA**) to the Killaloe VOR / DME for the **first leg**. Determine the true track and measure the distance in nautical miles (nm). Enter this data into the flight log. For the **second leg** draw a track from the Killaloe VOR / DME direct to the Pembroke Airport (**CYTA**).

(b) The aircraft used for this flight will be a **Cessna C152T** registered as **C-GGHI** with an indicated airspeed (IAS) of 100 Kts and a True Airspeed (TAS) of 109 Kts @ 6000 feet @ 2400 RPM, fully fueled with standard useable fuel of 24.5 U.S. gallons (147 lbs.), fuel consumption of 5.4 U.S. GPH (allow 1.6 gallons extra for warm-up, take-off and climb to 5500 feet ASL). Cruising altitude will be 5500 feet ASL for cruising levels compliance. You will be the only occupant for the flight.

(c) The aircraft has an empty weight of 1150 lbs. and a maximum take-off weight of 1670 lbs. Please add your own weight, the weight of the useable fuel, and 15 lbs. of baggage to that of the aircraft to determine the actual gross weight. The aircraft is painted red-on-white and is equipped with a 720 Nav/Com, DME, Mode C Transponder, ADF, fixed ELT and a digital clock. The compass deviation for this a/c is 2 degrees east. Determine the magnetic variation from the chart.

(d) You will depart **Muskoka Airport** on the initial leg of the trip to **Killaloe VOR** on a late May morning at 1300Z. The **METAR "AUTO"** issued for Muskoka (CYQA) at 1200Z indicates winds from 270 degrees @ 5 knots, prevailing visibility of "sensor equivalent visibility" of 9 statute miles, an overcast sky (OVC) @ 9,000 feet above station elevation, surface temperature of 25 degrees C and a dewpoint of 15 C. **NavCanada** has issued the following forecast weather conditions for the area during the period of the flight- **Clouds And Weather:** Heights ASL unless noted 10,000 overcast. Altostratus with tops at 12,000. Visibility is + 6 Statute Miles. **Icing:** Light rime icing in cloud. **Freezing Level** 13,000 feet. **Winds and Temperature:** 3,000 feet 280 degrees @10 kts.+21C 6,000 feet 295 degrees @15 kts.+15C 9,000 feet 310 degrees @20 kts +9C.
Are Weather Conditions Legal for VFR flight? Yes [] No []

(e) Calculate the estimated enroute times, headings, groundspeeds, ETA's and fuel consumption using **True Airspeed** for each leg and enter in the flight log. Calculate the total fuel used. Would the fuel remaining at the end of the flight meet **Legal Day VFR Rules**? Yes [] No [] An actual flight would also require a flight plan or flight itinerary to be filed.

(f) At what estimated time would you cross Highway 62 west of the Village of Madawaska on the Muskoka > Killaloe VOR leg? Enter in the Flight Observations portion of the log. [.....]

(g) On which radial will you be flying inbound to the Killaloe VOR? [.....]

(h) On which radial of the Killaloe VOR does the Pembroke Airport lie? [.....]

(i) If you decided to fly onward to CFB Petawawa, would you need prior permission and a flight plan? Yes [] No []