



**/// CIVIL AVIATION AUTHORITY  
OF NEW ZEALAND**

## **PPL Cross-Country Demonstration of Competency**

**Aeroplane/Helicopter**

**Day/Night**

Revision 1: May 2013

## **Introduction**

This guide sets out the procedures, techniques and criteria for the successful completion of the PPL cross-country demonstration of competence.

The guide describes an acceptable means of compliance for use in conjunction with the syllabus prescribed in CAA Advisory Circular 61-3. Category A, B or C flight instructors (out of direct supervision) (as applicable) are expected to use this guide when conducting the PPL cross-country demonstration of competency.

Flight instructors conducting PPL cross-country training and the student should be familiar with this guide and refer to the competency standards during training.

## **Change Notice**

This is an initial issue for aeroplane and revision 1 for helicopter.

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## General

### Eligibility

In order to be eligible for the PPL cross-country competency demonstration the student shall:

- Provide proof of identification in an acceptable form as outlined in AC61-1;
- Supply logbook records showing completion of the pre-requisite cross-country training in accordance with the syllabus in AC 61-3 Appendix VI.

### Conduct

An appropriately type rated Category A, B or C flight instructor (out of direct supervision) shall only conduct the PPL cross-country competency demonstration (day) when the pre-requisite training is complete, the aircraft is airworthy, the training records have been reviewed and the student's documents, as required by the New Zealand Civil Aviation Rules, are valid.

An appropriately type rated and night qualified Category A or B flight instructor shall only conduct the PPL cross-country competency demonstration (night) when the pre-requisite training is complete, the aircraft is airworthy, the training records have been reviewed and the student's documents, as required by the New Zealand Civil Aviation Rules, are valid.

### Briefing

The flight instructor conducting the assessment shall brief the student on the following details:

1. The route to be flown (other than the unplanned diversion).
2. Who is pilot-in-command? This demonstration is a dual exercise.
3. Respective roles in the event of an actual emergency. Who will fly the aircraft? What assistance is expected from the non-flying pilot?

### Advice to instructors

*In relation to point 1 above:*

Ensure the nominated route is a minimum 2 hours flight time (by day).

Ensure the nominated route is a minimum of 25 nautical miles from the point of departure (by night).

Unavoidable deviations from the flight plan due to weather, traffic or other situations beyond the reasonable control of the student should be fully explored to assess threat and error management, situational awareness and decision making.

*In relation to point 2 above:*

In applying CRM principles, it is acceptable for the student to utilise the flight instructor as a passenger to advise sighting other aircraft, hold maps and documents or pass items on request.

## Assessment of Performance

The student shall demonstrate competence in relation to the "Performance Criteria" section of each element of the cross-country flight.

### Marking Scale

<b>Ideal</b>	Performance is without errors under existing conditions. Handling is smooth and accurate. Decision making meets a higher than expected level of competency. Behaviour indicates continuous and highly accurate situational awareness. Flight management skills and threat and error management are excellent. Safety of the flight is assured.
<b>Competent</b>	Performance includes minor errors that are corrected promptly. Handling is smooth and within specified tolerances. Decision making meets the expected level of competency. Behaviour indicates that situational awareness has been maintained. Flight management skills and threat and error management are effective. Safety of the flight is maintained.
<b>Not yet competent</b> (requires further training)	Performance includes significant errors that are <u>not</u> recognised or are <u>not</u> corrected promptly. Handling is rough or includes uncorrected or excessive deviations from specified tolerances. Decision making <u>does not</u> meet an acceptable level of competency. Behaviour indicates lapses in situational awareness that are <u>not</u> identified or corrected. Flight management skills and/or threat and error management are ineffective. Safety of the flight is jeopardised.

### Incomplete flight test

If the demonstration cannot be completed owing to circumstances beyond the student's control, the subsequent demonstration shall require all manoeuvres to be demonstrated.

### Records

On the completion of cross-country training in accordance with Appendix VI of CAA Advisory Circular 61-3 and the successful completion of a PPL cross-country competency demonstration, the student's logbook shall be endorsed appropriately.

## **Flight Preparation**

### **Pre-flight planning**

#### **Aim**

To determine that the student has a practical knowledge of VFR flight planning.

#### **Description**

The student will be required to prepare a navigation log and flight plan for the nominated route.

#### ***Performance Criteria***

The student will:

- Make full use of relevant weather;
- Apply NOTAM's and AIP supplements to the proposed route;
- Choose appropriate tracks and altitudes for the route;
- Prepare the map for navigation in line with CRM principles;
- Prepare a navigation log to include tracks, headings, distance, ground speed, ETA's and fuel calculations (in accordance with Part 91 operational requirements);
- Prepare performance calculations relevant to (aeroplane) planned take-offs and landings;
- Complete and file an Airways or appropriate flight following flight plan or utilise a SARWATCH.

## **Weight and balance**

### **Aim**

To determine that the student can competently complete weight and balance calculations for the flight.

### **Description**

The student will be required to complete computations for the flight using actual weights for take-off and landing.

### ***Performance Criteria***

The student will:

- Determine if the centre of gravity is within permissible limits for take-off and landing.

## **Documents and airworthiness**

### **Aim**

To determine that the student can competently assess the validity of the required documents to be carried on board and, from these documents, determine that the aircraft is airworthy.

### **Description**

The student shall determine the validity of all documents required to be carried on board and determine that required maintenance certification has been completed.

### ***Performance Criteria***

The student will:

- Determine that the documents required on board are valid;
- Determine the number of flying hours before the next service or maintenance task is due;
- Ensure that any conditions or limitations on the technical log can be complied with.

## **Pre-flight inspection**

### **Aim**

To determine that the student can complete internal and external checks in accordance with the approved checklist to verify that the aircraft is ready for the intended flight.

### **Description**

The student shall determine that the aircraft is ready for the intended flight. All equipment appropriate to the flight e.g. lifejackets, survival equipment and documents shall be located and, so far as can be determined by pre-flight inspection, the aircraft shall be confirmed to be airworthy. Checks for fuel quantity, proper grade of fuel, fuel contamination and oil level shall be carried out in accordance with the POH/AFM.

### ***Performance Criteria***

The student will:

- Conduct the pre-flight inspection in accordance with the POH/AFM;
- Confirm that there is sufficient fuel and oil for the intended flight;
- Verify that the aircraft is in a condition for safe flight;
- Secure loose articles and arrange documents and equipment in a manner that makes the items readily available in accordance with CRM principles;
- Supervise the 'passenger' on the apron area (including embarking and disembarking);
- Perform an effective passenger safety briefing which shall include (as appropriate):
  - the location and use of emergency exits and equipment (emergency locator transmitter, fire extinguisher);
  - smoking limitations;
  - use of seat belts;
  - action to take in the event of an emergency landing;
  - passenger considerations for evacuation;
  - items specific to the aircraft type being used;
  - other items for use in an emergency;
  - a tone and manner of delivery that is appropriate to the flight.



## **General knowledge**

### **Aim**

In relation to the intended flight, to determine by questioning that the student understands AIP supplements, NOTAM's, weather reports and forecasts, aircraft performance, the MEL and lost procedures.

### **Description**

The instructor will refer to the NOTAM's, AIP supplements, weather reports and forecasts as provided by the student for the intended flight and ensure an adequate level of understanding of the information contained therein.

The instructor will question the student on the procedure to be adopted in the event of becoming lost and the associated decision making processes.

### ***Performance Criteria***

The student will:

- Demonstrate an understanding of information contained in NOTAM's, AIP supplements, weather reports and forecasts;
- Explain the procedure to be adopted in the event of becoming lost and the associated decision making process;
- Explain the application of the MEL.

## **In Flight Procedures**

### **Departure and arrival**

#### **Aim**

To determine that the student can comply with standard procedures for leaving and joining the traffic pattern (including the use of entry and exit lanes as applicable) and comply with the requirements of flight in controlled and other airspace.

#### **Description**

The student shall use entry and exit lanes (day only) and obtain clearances to enter controlled airspace (as appropriate, without instructor intervention).

#### ***Performance Criteria***

The student will:

- Conform with aerodrome signs and markings;
- Use entry and/or exit lanes where appropriate;
- Obtain and comply with clearances to enter controlled airspace as and when applicable;
- Maintain situational awareness, apply TEM and verbalise decision making (for the benefit of assessment by the instructor).

#### **Note:**

Flight into controlled airspace without a clearance is assessed Not Yet Competent regardless of overall performance.

## **En-route navigation**

### **Aim**

To ensure the student uses recommended cross-country navigation techniques.

### **Description**

The student shall maintain an in-flight log to revise ETA and maintain awareness of fuel burnt and in reserve.

Apply visual flight rules (VFR) to maintain visual meteorological conditions (VMC) and maintain situational awareness through map reading and calculate corrections to regain track as applicable.

### ***Performance Criteria***

The student will:

- Maintain an in-flight log;
- Maintain an awareness of fuel consumption and fuel remaining;
- Revise ETA as required;
- Use standard radiotelephony phraseology, make position reports as required and follow standard transponder procedures;
- Conduct the flight under Visual Flight Rules (VFR);
- Apply map reading principles and calculate corrections to regain track as applicable.

### **Note:**

1. Flight that infringes VMC is assessed Not Yet Competent regardless of overall performance.
2. The student should not be permitted access to GNSS information or moving map displays as it is vital that the basic principles of VFR navigation are understood before employing technology to decrease work load.

## **Precautionary (away) landing**

### **Aim**

To determine that the student can select a suitable field, carry out an inspection and position for a precautionary landing.

### **Description**

The student will be given a scenario that requires a precautionary landing to be carried out as the best available option. The student will be required to demonstrate the procedure within a reasonable time limit.

### ***Performance Criteria***

The student will:

- Verbalise the decision making processes (so that situational awareness, TEM and decision making can be fairly assessed by the instructor);
- Consider the wind conditions, landing surface and obstructions etc;
- Carry out a field inspection(s) as required;
- Make smooth, timely, and correct control applications throughout the inspection and approach;
- Complete appropriate checks.

## **Diversion**

### **Aim**

To determine the student's decision making processes and their ability to calculate/estimate heading, distance and ETA to a suitable diversion destination.

### **Description**

The student shall carry out a diversion when confronted by conditions/operational requirements or a simulation (at instructor discretion) that makes a diversion desirable.

### ***Performance Criteria***

The student will:

- Analyse the situation and take prompt action;
- Nominate a suitable diversion aerodrome;
- Calculate (from a positive fix) track and distance to go;
- Within 10 minutes, provide an ETA to the diversion aerodrome;
- Update weather and NOTAM's (if available/applicable) and calculate landing fuel;
- Amend flight following/SARTIME details (as appropriate).

### **Note:**

1. The student should be asked to verbalise their decision making processes so that situational awareness, TEM and decision making can be fairly assessed by the instructor.
2. An aerodrome is specifically nominated as the diversion destination for the purpose of assessing the student's navigation skills e.g. heading, ETA etc. (this requirement may be utilised to meet the requirement of an en-route landing).

## **Post flight procedures**

### **Aim**

To determine that the student carries out the appropriate post flight actions.

### **Description**

The student will complete the post flight actions without prompting.

### ***Performance Criteria***

The student will:

- Supervise the passenger on the apron area;
- Terminate the flight plan and/or any SARWATCH;
- Record and notify any defects;
- Record flight times appropriately;
- Secure the aircraft as appropriate.