

SECTION 1.10 FLIGHT PLANNING (FP)**Unit 1.10.1 AFPC: ATPL flight planning – all aircraft categories – *Reserved*****Unit 1.10.2 AFPA: ATPL flight planning – aeroplane****1. Reserved****2. Flight planning and flight monitoring****2.1 Practical considerations**

- 2.1.1 Complete a practical flight planning exercise using specified initial conditions and operations manual data. Other conditions may be inserted or varied en route for test purposes. The exercise is intended as a consolidated test of a candidate's ability to apply flight planning, performance and navigational principles, and will include:
- (a) determine take-off limits with consideration of the following as applicable:
 - (i) selection of runway;
 - (ii) payload/fuel uplift capability;
 - (iii) MTOW, including limits imposed by cruise or landing factors;
 - (iv) calculation of V-speeds and take-off distances;
 - (b) preparation of a weight and balance proforma:
 - (i) adjustment of load/fuel if required;
 - (c) selection of route and altitude:
 - (i) allowing for wind and temperature;
 - (ii) based on (given) forecast or actual conditions:
 - (A) synoptic;
 - (B) SIGMET;
 - (C) upper winds;
 - (D) TAF/METARs;
 - (iii) including departure, destination and alternate requirements;
 - (d) preparation of a fuel plan:
 - (i) sector fuel burns;
 - (ii) total fuel burn;
 - (iii) alternate and reserve fuel;
 - (iv) total fuel required;
 - (e) preparation of a navigation plan:
 - (i) sector times, distances, tracks;
 - (ii) headings and ground speeds;
 - (iii) minimum en route altitudes;
 - (iv) allowance for climb and descent;
 - (f) inflight computations, revisions or replanning:
 - (i) fuel state, fuel requirements, fuel reserves;
 - (ii) navigational progress:
 - (A) tracks, ETAs, en route wind;
 - (iii) diversion from track;
 - (iv) change of cruising level;
 - (v) engine-out flight;
 - (vi) holding;
 - (vii) assisting in search;
 - (g) interpretation of AIP maps and symbols;

- (h) interpretation of (given) ATC requirements:
 - (i) SID and/or STAR routings;
 - (ii) DME descent steps;
- (i) calculation of the following types of CP (ETP) and PNR:
 - (i) normal;
 - (ii) engine-out;
 - (iii) depressurised.

Unit 1.10.3 AFPH: ATPL flight planning – helicopter**1. Reserved****2. Flight planning****2.1 Practical considerations**

- 2.1.1 Complete a practical flight planning exercise using specified initial conditions and operations manual data:
- (a) determine take-off limits with consideration of the following as applicable:
 - (i) payload/fuel uplift capability;
 - (ii) MTOW, including limits imposed by cruise factors;
 - (b) prepare a weight and balance proforma:
 - (i) adjustment of load/fuel if required;
 - (c) selection of route and altitude:
 - (i) allowing for wind and temperature;
 - (ii) based on (given) forecast or actual conditions from the following meteorological reports/forecasts with consideration of departure, destination and alternate requirements;
 - (iii) synoptic;
 - (iv) SIGMET;
 - (v) winds;
 - (vi) TAF, TTF, METARs;
 - (d) preparation of a fuel plan:
 - (i) sector fuel burns;
 - (ii) mid-zone weight (MZW);
 - (iii) total fuel burn;
 - (iv) alternate and reserve fuel;
 - (v) total fuel required;
 - (e) preparation of a navigation plan:
 - (i) sector times, distances, tracks;
 - (ii) headings and ground speeds;
 - (iii) minimum en route altitudes;
 - (iv) allowance for climb and descent;
 - (v) lowest safe altitudes;
 - (f) inflight computations, revisions or replanning:
 - (i) fuel state, fuel requirements, fuel reserves;
 - (ii) navigational progress, including tracks, ETAs, en route wind;
 - (iii) diversion from track;
 - (iv) change of cruising level;
 - (v) engine-out flight;
 - (g) interpretation of AIP maps and symbols;
 - (h) interpretation of (given) ATC requirements;
 - (i) SID and/or STAR routings;
 - (ii) DME and GNSS descent steps;
 - (i) calculation of the following types of CP (ETP) and PNR:
 - (i) normal;
 - (ii) engine-out.

2.2 Pre-flight considerations

2.2.1 Aircraft equipment fits.

2.2.2 General helicopter exemptions:

- (a) performance of straight in approaches;
- (b) turns before 500 ft after take-off;
- (c) non-requirement to conduct flight control checks before take-off;
- (d) refuelling requirements;
- (e) crew seating requirements;
- (f) hoisting, rappelling and sling loads.