

# Séminaire ATO

## Nouveaux objectifs de formation ATPL, CPL, IR

6/06/2019



DSAC

Direction Générale de l'Aviation Civile

Ministère de la Transition écologique et solidaire

## In Summary

- ED Decision 2018/01/R (6/02/2018)  
ED Decision 2018/11/R (6/11/2018)
  - Based on RMT.0595 and NPA 2016/03
  - Amendment to AMCs and GMs to Part FCL (amdt 4 and 6), Part ORA (amdt 5) and Part ARA (amdt 6)
  - **Applicable 31 January 2022 at the latest**
  - New Area : Knowledge, Skills and Attitudes (100 KSA)
  - New Learning Objectives for ATPL, CPL, IR, CB-IR(A) and EIR
- Regulation 2018/1974
  - Communication VFR + Communication IFR = Communications

# Why new Learning Objectives?

- No update since a decade
- Emergence of new technologies and advancement of training philosophy
- Precondition for ensuring that ECQB is current and relevant to evolving training needs

## Main issues addressed 1/3

- Categorization of subject areas assessed to ensure that it remains meaningful
- Some topics moved between or deleted from subject areas to minimize and, where possible, eliminate duplication.
- Each subject reviewed for compliance with newly developed taxonomy guidelines for the drafting of Los
- LOs of each subject area reviewed to ensure they are current, up to date, and relevant

## Main issues addressed 2/3

- Subject areas common to both aeroplanes and helicopters reviewed and new aeroplane- or helicopter-specific LOs introduced
- Each subject area reviewed to consider whether the LOs are relevant and proportionate for the specific examinations
- Appropriate rule references specified in the syllabi and LOs reviewed.

## Main issues addressed 3/3

- Guidelines on structuring and drafting syllabi items and LOs prepared in a separate EASA internal document to be used by groups of experts.
- Jeppesen Student Pilot Route Manual updated and revised. The revised version is called the General Student Pilot Route Manual (GSPRM) and fits both the current syllabus and the new one.

## Amendments - General

- Several LOs categorized as comprising “Basic Knowledge (BK)”. No subject to examination questions but prerequisite that ATOs must ensure are covered by training delivered
- Outdated or irrelevant Los deleted
- Some LOs moved from one topic or subject to another
- LOs reviewed to ensure greater clarity in the level of understanding that is required, based on the taxonomy of verbs described in the new GM1 FCL.310; FCL.515(b); FCL.615(b).

## ***SUBJECT 010 — AIR LAW***

- *References to the applicable legislation added*
- *Deletion of*
  - *LOs about general ICAO agreements*
  - *LOs requiring descriptions of organizations*
  - *LOs on CS and ICAO Annex 8 considered beyond the necessary knowledge*
  - *LOs on radio altimeter operating areas*



## **SUBJECT 020 — AIRCRAFT GENERAL KNOWLEDGE**

- *More emphasis on what is relevant to a pilot rather than going into great depth on the technical aspects*
- ***Emphasis on automation***
- *New LOs covering electric no-bleed air conditioning, lithium-ion batteries, electrically actuated brakes, composite materials, head-up displays, synthetic visual systems and enhanced vision systems*
- *Significant revision of the LOs relating to fly-by-wire control systems*
- *Import of LOs from General Navigation and Radio Navigation*

## SUBJECT 031 — MASS AND BALANCE

- Terminology brought up to date
- LOs relating to the application of last-minute changes (LMCs) on loading documentation deleted
- New LO on digital systems, as Basic Knowledge
- LO on the dry operating index (DOI) extended to include the calculation of the DOI

## ***SUBJECT 032 — PERFORMANCE (AEROPLANE)***

- *Outdated terms deleted or updated*
- *New LOs added to cover the basic concepts on which aeroplane performance is established*

## ***SUBJECT 033 — FLIGHT PLANNING AND MONITORING***

- *Several new LOs introduced concerning terrain separation criteria*
- *New LOs covering the PBN terminology*

# *SUBJECT 034 — PERFORMANCE (HELICOPTER)*

- *No more reference to V1*

# ***SUBJECT 040 — HUMAN PERFORMANCE AND LIMITATIONS***

- *Syllabus restructured*
- *LOs adjusted to be relevant for pilots*
- *Paragraph about personal hygiene deleted*
- ***Fatigue risk management added as a new LO***
- ***LOs on automation are completely revised***

## ***SUBJECT 050 — METEOROLOGY***

- *Number of LOs marked as BK reduced*
- *New topic area “World area forecast system and meteorological offices” as BK*
- **New paragraph “Ice crystal icing”**

## ***SUBJECT 061 — GENERAL NAVIGATION***

- *Totally rearranged and rewritten*
- *Clarification of requirements concerning mental calculation*
- ***Addition of specific VFR navigation techniques***
- *LOs on the magnetic compass moved to Instrumentation*



## ***SUBJECT 062 — RADIO NAVIGATION***

- *LOs on global navigation satellite system (GNSS) modified with many LOs deleted as they were considered to go into too much technical detail*
- *LOs on CDU, EFIS, PFD, ND moved to Instrumentation*

## ***SUBJECT 070 — OPERATIONAL PROCEDURES***

- *LOs on polar navigation deleted*
- *Many LO levels changed from “state” to “explain” in order to focus more on understanding rather than on learning facts by heart.*

## ***SUBJECT 081 — PRINCIPLES OF FLIGHT (AEROPLANE)***

- *New section titled “Stall, shock stall, and upset prevention and recovery”*
- *LOs on the aerodynamic moment and moment coefficients deleted*
- *LOs on the phenomenon of flutter simplified to essential facts*

## ***SUBJECT 082 — PRINCIPLES OF FLIGHT (HELICOPTER)***

- *LOs about velocities of the blade, azimuth angle of the blades, and forces and stresses on the blade deleted*
- *Knowledge about stability and control power decreased to the knowledge necessary for a helicopter pilot*

## Further details

- [ECQB Chapter of EASA website](#), including
  - [TK Syllabus Comparison Document](#)

# Examination procedures

- Within each subjects, new distribution of questions with regards to the topics of the syllabus
- Changes in the total duration and number of questions of some subjects

<i>Subject</i>	<i>ATPL(A)</i>	<i>CPL(A)</i>	<i>ATPL(H)/IR</i>	<i>ATPL(H)/VFR</i>	<i>CPL(H)</i>	<i>IR(A&amp;H)</i>	<i>CB-IR(A) &amp; EIR</i>
<b>010 Air Law &amp; ATC</b>	01:00 hrs 44 quest.	00:45 hrs 33 quest.	01:00 hrs 44 quest.	00:45 hrs 33 quest.	00:45 hrs 33 quest.	00:45 hrs 30 quest.	00:30 hrs 18 quest.
<b>021 AGK</b>	02:00 hrs 80 quest.	01:30 hrs 60 quest.	02:00 hrs 80 quest.	02:00 hrs 80 quest.	01:30 hrs 60 quest.	XX	XX
<b>022 Instrumentation</b>	01:30 hrs 60 quest.	01:00 hrs 40 quest.	01:30 hrs 60 quest.	01:30 hrs 60 quest.	01:00 hrs 40 quest.	00:30 hrs 20 quest.	00:20 hrs 12 quest.
<b>031 Mass &amp; Balance</b>	01:15 hrs 25 quest.	01:00 hrs 21 quest.	01:15 hrs 25 quest.	01:15 hrs 25 quest.	01:00 hrs 21 quest.	XX	XX
<b>032 Performance (A)</b>	02:00 hrs 45 quest.	01:15 hrs 28 quest.	XX	XX	XX	XX	XX
<b>033 Flight Planning &amp; Monitoring</b>	02:00 hrs 42 quest.	01:30 hrs 33 quest.	02:00 hrs 42 quest.	01:30 hrs 33 quest.	01:30 hrs 33 quest.	01:15 hrs 27 quest.	01:00 hrs 22 quest.
<b>034 Performance (H)</b>	XX	XX	01:15 hrs 35 quest.	01:15 hrs 35 quest.	00:45 hrs 20 quest.	XX	XX
<b>040 Human Performance</b>	01:30 48 quest.	01:00 35 quest.	01:30 48 quest.	01:30 48 quest.	01:00 35 quest.	01:00 35 quest.	00:30 16 quest.
<b>050 Meteorology</b>	02:00 hrs 84 quest.	01:30 hrs 63 quest.	02:00 hrs 84 quest.	02:00 hrs 84 quest.	01:30 hrs 63 quest.	01:30 hrs 63 quest.	0:50 hrs 35 quest.
<b>061 Gen. Navigation</b>	02:15 hrs 55 quest.	02:00 hrs 45 quest.	02:15 hrs 55 quest.	02:15 hrs 55 quest.	02:00 hrs 45 quest.	XX	XX
<b>062 Radio Navigation</b>	01:30 hrs 66 quest.	00:30 hrs 22 quest.	01:30 hrs 66 quest.	01:00 hrs 44 quest.	00:30 hrs 22 quest.	01:00 hrs 44 quest.	00:40 hrs 24 quest.
<b>070 Operational Procedures</b>	01:15 hrs 42 quest.	01:00 hrs 30 quest.	01:15 hrs 40 quest.	01:00 hrs 32 quest.	00:45 hrs 32 quest.	XX	XX
<b>081 Principles of Flight (A)</b>	01:30 hrs 46 quest.	01:15 hrs 37 quest.	XX	XX	XX	XX	XX
<b>082 Principles of Flight (H)</b>	XX	XX	01:15 hrs 42 quest.	01:15 hrs 42 quest.	01:15 hrs 42 quest.	XX	XX
<b>Total (excl. 090)</b>	<b>19:45 hrs 637 quest.</b>	<b>14:15 hrs 447 quest.</b>	<b>18:45 hrs 621 quest.</b>	<b>17:15 hrs 571 quest.</b>	<b>13:30 hrs 446 quest.</b>	<b>6 hrs 219 quest.</b>	<b>03:50 hrs 127 quest.</b>
<b>Change from 'old' exam blueprints (excl. 090)</b>	<b>+02:30 hrs +3 quest.</b>	<b>+02:00 hrs +3 quest.</b>	<b>+01:45 hrs -6 quest.</b>	<b>+01:30 hrs -3 quest.</b>	<b>+01:00 hr -4 quest.</b>	<b>No change -6 quest.</b>	<b>+00:30 hrs No change to no. of questions</b>



# Examination procedures

- 022 – Aircraft general knowledge – Instrumentation
  - CPL : +1 question for CPL
- 031 – Flight performance and planning – Mass and balance
  - CPL : - 4 questions
- 032 – Flight performance and planning – Performance (Aeroplanes)
  - **ATPL : + 10 questions and + 1hr**
  - **CPL : + 3 questions and + 15'**



# Examination procedures

- 033 – Flight performance and planning – Flight planning and monitoring
  - ATPL : -1 question
  - IR : - 6 questions
- 040 – Human performance
  - ATPL : + 30'
  - CPL and IR : -1 question and + 15'
- 061 – General navigation
  - ATPL : - 5 questions and + 15'
  - CPL : + 30'

# Examination procedures

- 062 – Radio Navigation
  - ATPL(H) : +10 questions
- 070 – Operational procedures
  - ATPL(H) and CPL(A): + 15'
- 081 – Principles of flight (Aeroplanes)
  - ATPL : + 2 questions and +30'
  - CPL : + 4 questions and +30'
- 082 – Principles of flight (Helicopters)
  - ATPL and CPL : + 2 questions and + 15'

## Examination procedures - Transition

- Need to translate new and revised questions (1250 new questions released by EASA in April)
- Need to develop a new version of Examination tool OCEANE
  - Due to work in progress to improve security and ergonomics, can not start before end 2019
  - Initial objective to start examination according new LOs summer 2020 might be difficult to achieve

# Merci de votre attention

## Questions ?



DSAC

Direction Générale de l'Aviation Civile

Ministère de la Transition écologique et solidaire