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Area 100 KSA

New theoretical knowledge element for training toward commercial licenses:

«Knowledge, skills and attitude»

12.09.2018

Goal of this presentation

We learn about the following points:

- What is Area 100 KSA and why do we need it?

- Who is affected in the ATO?

- What are the changes in the training?

- What are the amendments to the documentation?
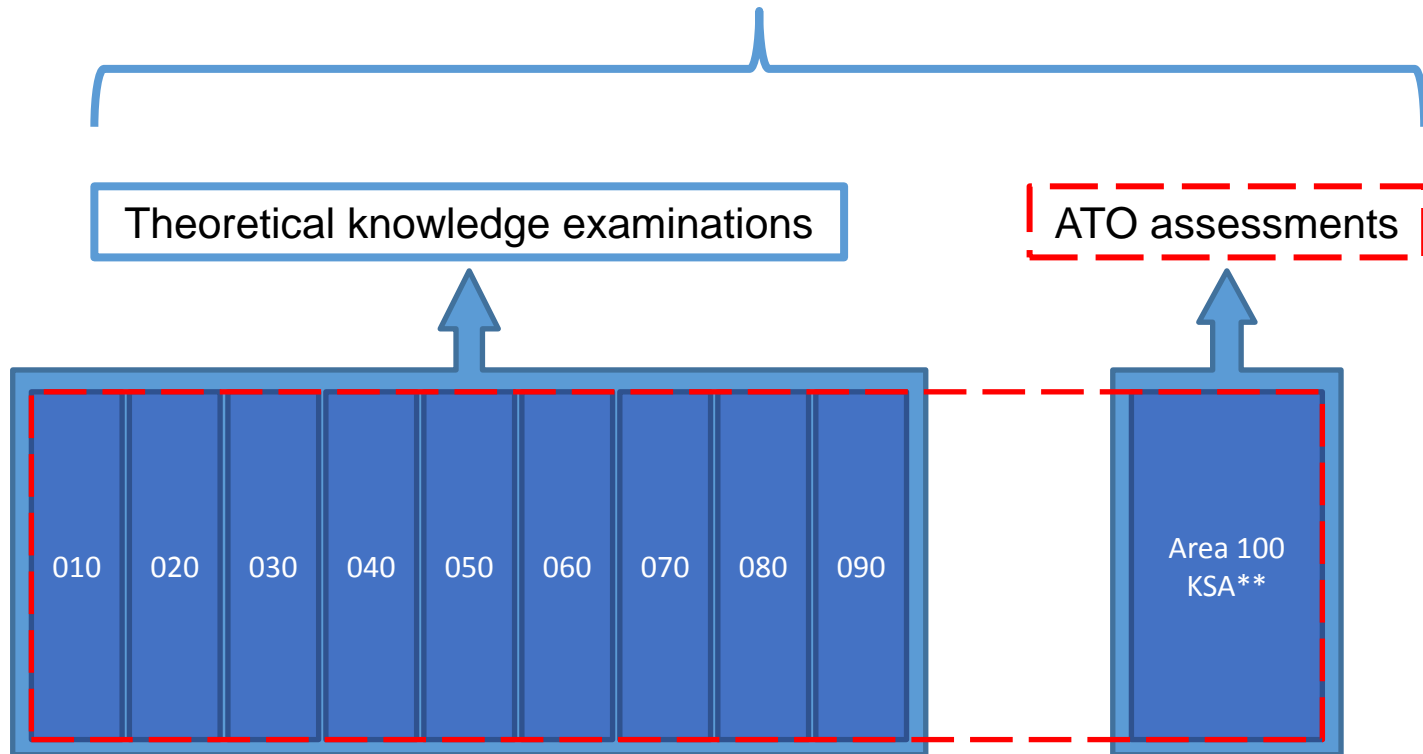
- Who can instruct KSA instructors?

What is Area 100 KSA?

«Knowldge, skills and attitude» for commercial pilots

In both helicopter and aeroplane categories: ATPL, MPL, CPL

| Theoretical knowledge examinations | ATO assessments |

| 010 | 020 | 030 | 040 | 050 | 060 | 070 | 080 | 090 | | Area 100 KSA** |

*May be implemented at any time before this date.

**not part of theoretical knowledge examinations

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Why do we need it?

EASA data shows: 50% of licensed pilots
                     fail AOC assessments

Single choice examinations do not verify if the answers come
from rote learning or from understanding.

Exam   ...Forget

Study

Analyze

Apply

Understand

Remember

Bloom's taxonomy
Higher order thinking skills

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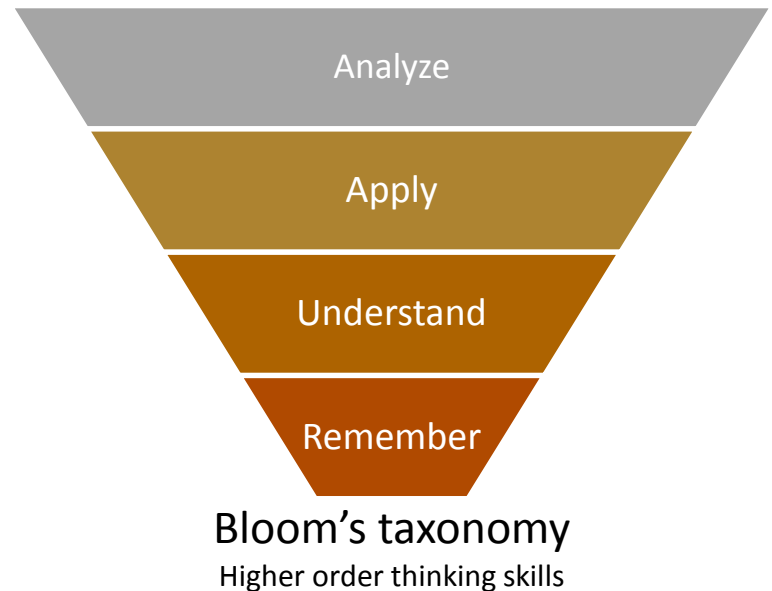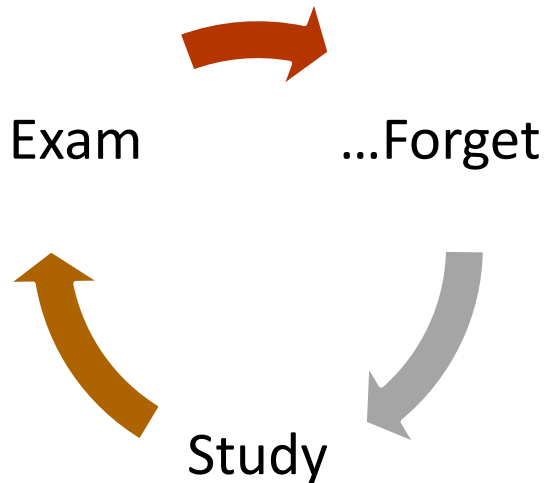
How do we approach this problem?

Area 100 KSA differs from other learning objectives (LOs) in the verbs used: *Show* and *demonstrate*
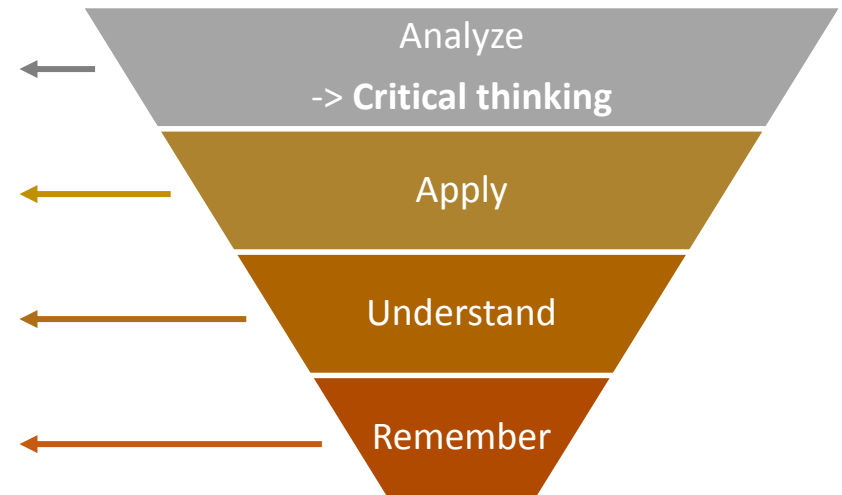
The aim is to elevate the students to a higher level of thinking.

Plan, discuss, evaluate, create

Calculate, interpret, relate, solve

Describe, explain

State, list, define, recall

Analyze
-> **Critical thinking**

Apply

Understand

Remember

Bloom's taxonomy
Higher order thinking skills

Refer to GM1 FCL.310; FCL.515(b); FCL.615(b)

Learning Objectives (LOs)

Area 100 KSA introduces new LOs for ATPL, MPL and CPL:

- LO 100 01   ICAO Core Competencies*
- LO 100 02   Communication
  Leadership and teamwork
  Problem-solving and decision-making
  Situation awareness
  Workload management
- LO 100 03   Threat and error management (TEM)
  Application of knowledge
  Upset and recovery training (UPRT) and resilience
- LO 100 04   Mental maths (approximations)

Note: Area 100 KSA is based on the ICAO Core Competencies (ICAO Doc 9995 «Manual of Evidence-based Training»).

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Who is affected?

Compliance Monitoring Manager (CMM):
- Become familiar with Area 100 KSA
  (ED Decision 2018/001/R);
- Amend the ATO's documentation.

Chief Theoretical Knowledge Instructor (CTKI)*:
- Responsible for the course design and KSA implementation;
- Instruct KSA instructors (initial and annual training).

When designing the course, remember **the core of Area 100 KSA**:

«Tell me and I forget, teach me and I remember,
involve me and I learn»

*or other suitable nominated person

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What are the changes in the training?

The ATO should conduct at least:

One formative assessment

During the learning process;

The student *develops* the competencies in most KSA LOs.

Two summative assessments

At the end of a learning episode (e.g. after a subject is completed);

The student *demonstrates* the competencies in all KSA LOs. The instructor uses the ATO's performance indicators to assess the student's KSA.

One mental maths test

The student applies the gained theoretical knowledge;

This test should be scenario-based and includes estimations and calculations.

What is a KSA assessment?

010	020	030	040	050	060	070	080	090

- Formative assessment (030)
- Summative assessment (050)
- Mental maths test (070)
- Summative assessment (090)

→ Theoretical knowledge examinations

Note: The timing and number of the assessments is up to the ATO.

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Amendments to the documentation

The most obvious:
- Training Manual (TM)
  - Chapter 1.9 renamed «<u>Assessments</u>, tests and examinations»;
  - Chapter 1.9.2 describes the Area 100 KSA assessments;
  - Chapter 1.9.5 renamed to «Test and <u>assessment</u> reports and records»;
  - New appendices providing an example of a summative assessment and a mental maths test.

The less obvious*:
- OMM (record keeping);
- OM-D (KSA instructor training).

*This is not an exhaustive list. The full implementation in the documentation is a CMM responsibility.
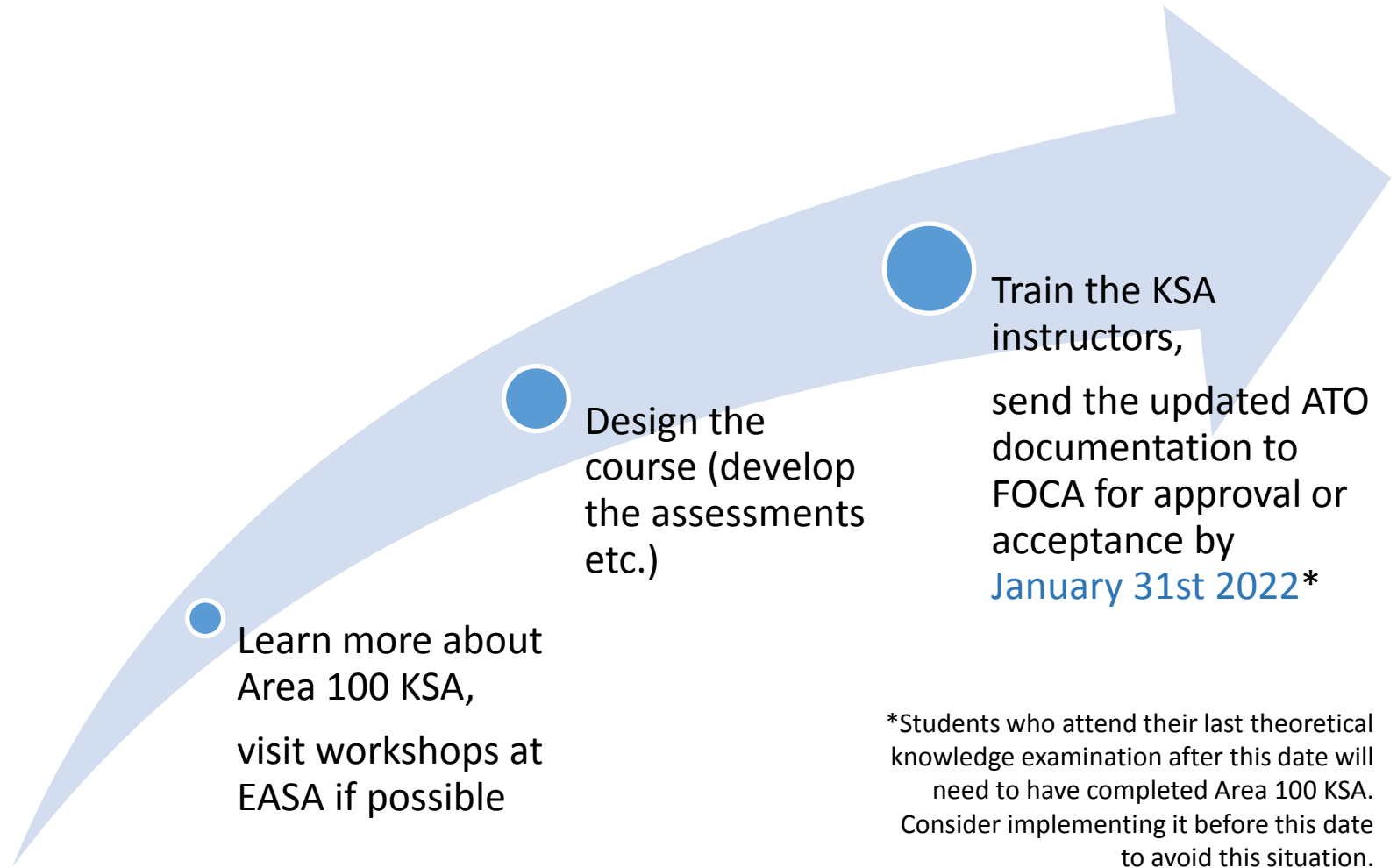
KSA instructors

- The person responsible to implement Area 100 KSA, e.g. CTKI*, can deliver initial/annual training to KSA instructors;

- The assessments are very unique in each ATO, therefore the training is to be conducted by the ATO;

- Consider a training record checklist for the record keeping;

- The instructors only require training for the KSA instruction and assessments that they will deliver;

- KSA instructor training is focused on:
  - Practical training for assessments;
  - The ATO's standardized grading system.**

*or other suitable nominated person; **EASA provides an example in GM2 ORA.ATO.230(a). ATO's may use other means.

Your next steps

Learn more about Area 100 KSA, visit workshops at EASA if possible

Design the course (develop the assessments etc.)

Train the KSA instructors, send the updated ATO documentation to FOCA for approval or acceptance by January 31st 2022*

*Students who attend their last theoretical knowledge examination after this date will need to have completed Area 100 KSA. Consider implementing it before this date to avoid this situation.

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Change management

To the CMMs and CTKIs in this room:

Yes, Area 100 KSA does seem complicated at first sight.

Remember **the core of Area 100 KSA**:

«[...] *involve me and I learn*»

You may implement Area 100 KSA in a pragmatic fashion – as long as your future pilots are prepared for their assessments on their first job and they truly are better pilots*.

*and as long as long as the record keeping is kept in order, of course.

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