

Competency Assessment and Evaluation for Pilots, and Instructors/Evaluators

Guidance Material

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Definitions

Adapted competency model. A group of competencies with their associated description and performance criteria adapted from an ICAO competency framework that an organization uses to develop competency-based training and assessment for a given role.

Air operator certificate (AOC). A certificate authorizing an operator to carry out specified commercial air transport operations.

Approved training organization (ATO). An organization approved by and operating under the supervision of a Contracting State in accordance with the requirements of Annex 1 to perform approved training.

Assessment. The determination by an instructor or evaluator as to whether a candidate meets a required competency standard under given conditions, by collecting evidence from observable behaviors. Assessment takes place during instruction and evaluation.

Assessment (evidence) guide. A guide that provides detailed information in the form of evidence that an instructor or an evaluator can use to determine whether a candidate meets the requirements of the competency standard.

Competency. A dimension of human performance that is used to reliably predict successful performance on the job. A competency is manifested and observed through behaviors that mobilize the relevant knowledge, skills and attitudes to carry out activities or tasks under specified conditions.

Competency-based training and assessment. Training and assessment that are characterized by a performance orientation, emphasis on standards of performance and their measurement, and the development of training to the specified performance standards.

Competency standard. A level of performance that is defined as acceptable when assessing whether or not competency has been achieved.

Conditions. Anything that may qualify a specific environment in which performance will be demonstrated.

Error. An action or inaction by an operational person that leads to deviations from organizational or the operational person's intentions or expectations.

Note — See Chapter 1 of Annex 19 — Safety Management for a description of operational personnel.

Error management. The process of detecting and responding to errors with countermeasures that reduce or eliminate the consequences of errors and mitigate the probability of further errors or undesired states.

Evaluation. For the purpose of this document, evaluation means the summative assessment of a trainee performance or the evaluation of the training system.

Note: "Validation", as used under the FAA, is equivalent to a summative assessment.

Evaluator. A person authorized to conduct the formal and final summative assessment of a trainee's performance

Event. A combination of a task or a sub-task and the conditions under which the task or sub-task is to be performed.

Facilitation technique. An active training method, which uses effective questioning, listening and a non-judgmental approach and is particularly effective in developing skills and attitudes, assisting trainees to develop insight and their own solutions and resulting in better understanding, retention and commitment.

Human performance. Human capabilities and limitations which have an impact on the safety and efficiency of aeronautical operations.

ICAO competency framework. A competency framework, developed by ICAO, is a selected group of competencies for a given aviation discipline. Each competency has an associated description and observable behaviors.

Instructional systems design (ISD). A formal process for designing training which includes analysis, design and production, and evaluation.

Instructor. A person authorized to provide training and to conduct evaluations.

Observable behavior (OB). A single role-related behavior that can be observed and may or may not be measurable.

Operations manual. A manual containing procedures, instructions, and guidance for use by operational personnel in the execution of their duties.

Performance criteria. Statements used to assess whether the required levels of performance have been achieved for a competency. A performance criterion consists of an observable behavior, condition(s) and a competency standard.

Resilience. The ability of a flight crew member to recognize, absorb and adapt to disruptions.

Note: Resilience is the ability to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events as defined by the US National Academies of science, engineering and medicine.

Scenario (event-set). Relatively independent segment of training made up of several events.

Threat. Events or errors that occur beyond the influence of an operational person, increase operational complexity and must be managed to maintain the margin of safety.

Threat management. The process of detecting and responding to threats with countermeasures that reduce or eliminate the consequences of threats and mitigate the probability of errors or undesired states.



Training objective. A clear statement that is comprised of three parts, i.e., the desired performance or what the trainee is expected to be able to do at the end of training (or at the end of particular stages of training), the performance standard that must be attained to confirm the trainee's level of competence, and the conditions under which the trainee will demonstrate competence.



Abbreviations and Acronyms

AOC	Air Operator Certificate/ Air Operator Certificate holder (operator)
ATO	Approved Training Organization
CBTA	Competency-Based Training and Assessment
CRM	Crew Resource Management
EBT	Evidence-Based Training
ICAO	International Civil Aviation Organization
IE	Instructor/Evaluator
ISD	Instructional System Design
KSA	Knowledge, Skills and Attitudes
OB	Observable Behavior
PANS-TRG	Procedures for Air Navigation Services – Training
TEM	Threat and Error Management



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Chapter 1 Introduction

This document is intended to provide guidance to Civil Aviation Authorities, Operators (AOC) and Approved Training Organizations (ATO) for the competency assessment and evaluation of pilots, instructors and evaluators in the context of the global expansion of Competency-based Training and assessment (CBTA) programs.

Since ICAO released Doc 9868, PANS-TRG, Amendment 7, the principles of CBTA are applicable to all licensing and operator training with the goal to provide a competent workforce for a safe and efficient air transport.

CBTA programs are performance-based training programs that integrate per design a continuous monitoring and evaluation of the course. The training system performance is measured and evaluated through a feedback process that uses training metrics to collect the post-delivery training program data.

As the training metrics are significantly sustained by pilot and instructor/evaluator performance data, this guidance material places a special emphasis on “what” is competency assessment and on “how” to conduct the pilot and instructor/evaluator performance assessment.

In this guidance material, the following terminology is applied:

- “Trainee” means a pilot or an instructor/evaluator receiving training or evaluation
- “Trainer” means an instructor/evaluator conducting training or evaluation

Chapter 2 General Provisions

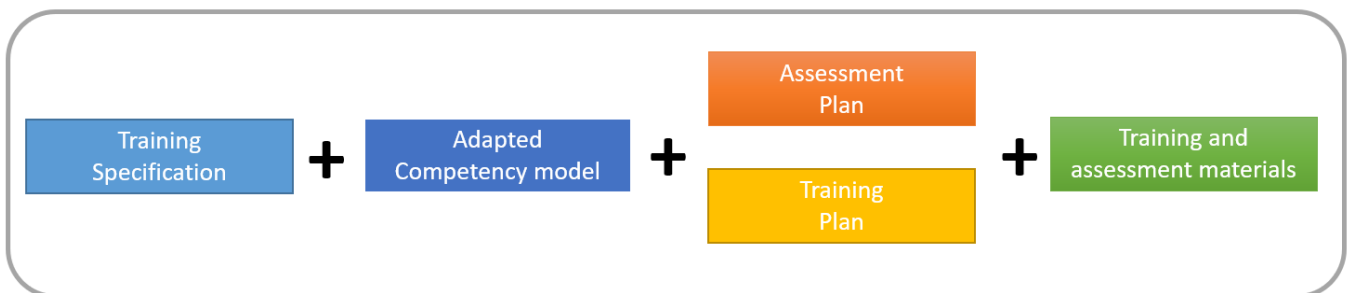
2.1 Components of a CBTA program

CBTA programs are outlined respecting a robust instructional systems design (ISD) methodology. The ISD can serve as a basis to derive the essential components of competency-based training and assessment as described below and illustrated in Figure 1.

In **bold** the components that are directly related to competency assessment:

- A training specification that describes the purpose of the training, the tasks list and the requirements that must be fulfilled when designing the training
- **An adapted competency model**, which is a group of competencies with their associated description and performance criteria adapted from an ICAO competency framework that the ATO/AOC uses to develop competency-based training and assessment for pilots and instructors/evaluators
- **An assessment plan** providing the process and tools for gathering valid and reliable evidence at different stages during training
- A training plan describing the training required to achieve the competencies. It includes but is not limited to a syllabus (including knowledge, skills and attitudes (KSA), milestones, lesson plans and schedules), and
- Training and **assessment materials** and the human, material and organizational resources needed to implement training and assessment plans

Figure 1:



2.2 The competency framework

The IATA pilot and, the instructor/evaluator competency frameworks are available in Appendix A and Appendix B of this guide.

The competency frameworks are structured in such a way that each competency and associated description and Observable Behaviors (OBs) are clearly identifiable and properly determined.

In 2018, the OBs were numbered to facilitate the CBTA training data collection and analysis.

Example of the IATA pilot competency framework for the competency “Communication”.

COMMUNICATION	
Description	Observable behaviors (OBs)
Communicates through appropriate means in the operational environment, in both normal and non normal situations	OB 2.1 Determines that the recipient is ready and able to receive information OB 2.2 Selects appropriately what, when, how and with whom to communicate OB 2.3 Conveys messages clearly, accurately and concisely OB 2.4 Confirms that the recipient demonstrates understanding of important information OB 2.5 Listens actively and demonstrates understanding when receiving information OB 2.6 Asks relevant and effective questions OB 2.7 Uses appropriate escalation in communication to resolve identified deviations OB 2.8 Uses and interprets non-verbal communication in a manner appropriate to the organizational and social culture OB 2.9 Adheres to standard radiotelephone phraseology and procedures OB 2.10 Accurately reads, interprets, constructs and responds to datalink messages in English

2.3 The Adapted Competency Model

The Adapted Competency Model introduces performance criteria to complement the competency framework. These performance criteria include the competency standards and the conditions that are necessary to train and assess the capacity of the pilots and instructors/evaluators to perform at the standard expected by the organization.

Example of an adapted competency model

Performance criteria. Statements used to assess whether the required levels of performance have been achieved for a competency. A performance criterion consists of an observable behavior, condition(s) and a competency standard.

Competency	Description	Performance criteria	
		Observable behavior (OB)	Competency Assessment
Competency 1	Description 1	OB 1	<div style="background-color: #003366; color: white; padding: 5px; display: inline-block;"> Competency standard (Final or interim) </div> <div style="background-color: #90EE90; padding: 5px; display: inline-block; margin-left: 10px;"> Conditions: <ul style="list-style-type: none"> Context complexity (operational and environmental) Level of support of the instructor Aircraft, FSTD, tool, system, or equipment </div>
		OB 2	
		OB n	
Competency 2	Description 2	OB 1	
		OB 2	
		OB n	
Competency n	Description n	OB 1	
		OB 2	
		OB n	

Competency Standard. A level of performance that is defined as acceptable when assessing whether or not competency has been achieved

Conditions. Anything that may qualify a specific environment in which performance will be demonstrated.

Note 1: Final and interim competency standards are defined by the organization.

Note 2: There are different types of conditions to be considered.

- conditions related to context (nature and complexity of the operational and environmental context)
- conditions related to the amount of support or assistance a trainee can expect from the instructor/evaluator
- conditions related to tools and systems/equipment airplane, FSTD

The criteria for adaption are related to the following elements:

1. The competency itself, including its name
2. The description of the competency
3. The observable behaviors
4. The final competency standard
5. The conditions of the demonstration of competency

IATA considers that elements 1 to 3 are optional for adaption and the ATO/AOC should modify only a few elements for high-level training strategies or for tactical reasons due to a specific type of operations.

The example for strategic adaptation is related to the inclusion of the competency “Application of Knowledge” in the IATA Pilot Competencies Framework. It is worth noting that “Application of Knowledge” has been adopted by most operators and by regulators such as EASA.

The example for tactical adaptation is related to the removal of OB 2.10 “Accurately reads, interprets, constructs and responds to datalink messages in English” from the competency Communication for the ab initio training centers that do not have data link equipment for their operations.

IATA considers that elements 4 and 5 necessitate adaptation, depending on the purpose of the training.

An example for the different final competency standard can be illustrated during the selection of pilot instructors, who, compared to the regular pilots, need to achieve a higher final competency standard for specific competencies. For example, for the competency Workload Management, the final competency standard should be “effective” (corresponding to grade 4) for pilot instructors, while the final competency standard should be “adequate” (corresponding to grade 3) for regular pilots.

The example for different conditions can be illustrated during a type rating course. The competency standard is identical through the course but during the early stages, trainees can expect active coaching and teaching from the instructor. As the trainees progress towards the competency standard and gain more confidence in performing independently, the instructor takes on a more passive role.

Chapter 3 The Assessment Plan

3.1 Content

The assessment plan should provide the following details:

- The final competency standard associated with the final milestone
- The interim competency standard associated with each milestone (if required)
- The list of assessments (formative and summative assessments, examinations, oral assessments, etc.) required for each of the milestone(s) that have been defined
- The tools to be used to collect evidence during practical assessment
- The pass marks for projects, examinations or oral assessments
- If required, the minimum number of formative assessments to be undertaken prior to starting summative assessments; and
- The number of observations required to assess performance for the interim and final competency standards

The AOC or the ATO should produce a training manual that describes the administrative procedures relating to:

- Which personnel may conduct assessments and their qualifications
- Roles and responsibilities of personnel during the conduct of assessments
- Assessment procedures (preparation, conduct and post-assessment)
- Conditions under which assessments are to be undertaken
- Record-keeping; and
- Actions to be taken when a trainee fails to meet the competency standard(s) of the assessment

3.2 Principles of competency assessment

The following principles should be implemented and monitored by the AOC or the ATO to ensure effectiveness of the CBTA program. The statements in bold are key elements for the instructor/evaluator initial and recurrent standardization and continuous monitoring of the instructor/evaluator performance.

- Clear performance criteria are used to assess competence. The adapted competency model establishes these performance criteria.
- An integrated performance of the competencies is observed. The trainee undergoing assessment must demonstrate all competencies and their seamless interaction with each other.
- **Multiple observations are undertaken.** To determine whether or not a trainee has achieved the interim and/or final competency standard, multiple observations must be carried out.

- **Assessments are valid.** All of the competencies that comprise the adapted competency model must be assessed. **There must be sufficient evidence** to ensure that the trainee achieves the competency and meets the interim and/or final competency.
- **Assessments are reliable.** All instructors/evaluators should reach the same conclusion when performing an assessment. All instructors/evaluators should be trained and monitored to achieve and maintain an acceptable level of inter-rater reliability.

Chapter 4 The Assessment Methods

The assessment is the determination by an instructor or evaluator as to whether a candidate meets a required competency standard under given conditions, by collecting evidence from observable behaviors.

The assessment takes place during instruction and evaluation and can be either formative or summative.

Formative Assessment

The formative assessments are a part of the learning process. Instructors/evaluators provide feedback to the trainees on how they are progressing toward the interim or final competency standard. This type of assessment enables the trainees to progressively build on competencies already acquired and should aid learning by identifying gaps as learning opportunities.

The formative assessment should serve to motivate trainees, identify strengths and weakness and promote learning.

Summative Assessment

The summative assessments provide a method that enables the instructor/evaluator to work with a trainee to collect evidence of the competencies and performance criteria to be demonstrated with respect to the interim or final competency standard(s).

The Summative assessments are carried out at defined points during the training and/or at the end of the training. **During summative assessments, the decision is either "competent" or "not competent" with respect to the interim or final competency standard(s).** However, this can be further developed into a more refined grading system with a scale of judgments to improve feedback for the trainee and training personnel.

The oral assessment is a method that may be used to supplement a summative assessment. The oral assessment provides the instructor/evaluator with the opportunity to target those areas of performance that could not realistically be observed in the practical environment, and to refocus on actions observed during the practical assessment that may have been cause for concern.

Oral assessments may be conducted away from the practical environment. They are usually scenario-based and are designed around situations that the instructor/evaluator wants to explore further. The instructor/evaluator explains the scenario and then asks the trainees to describe what actions they would take. After the trainees have described their actions, the instructor/evaluator may ask further clarifying questions. The instructor/evaluator then assesses the trainees' responses in relation to the adapted competency model.

Examinations are generally used to evaluate theoretical knowledge. Examinations may be written or completed with the aid of digital equipment and/or online applications.

Chapter 5 The Assessment Materials

The assessment materials are developed based on the adapted competency model and the training and assessment plans. Assessment materials include but are not limited to training notes, exercise briefings, practical exercises, case studies, presentations, video clips, self-test quizzes, examinations, assessments, and assessment tools*.

*Assessment guides for single pilot operations, for multi-crew operations, and for instructor/evaluator are provided in Appendices C, D and E respectively. These assessment guides are used to eliminate different interpretations among instructors/evaluators and ensure that valid and reliable evidence is gathered during the assessments.

Chapter 6 CBTA Training System Performance

CBTA is a performance-based training program that integrates per design a continuous monitoring and evaluation of the course.

Under CBTA, the training system performance is measured and evaluated through a feedback process in order to validate and refine the program and ascertain that the organization program develops pilot competencies and meets the training objectives.

The feedback process should be included in the AOC or ATO safety and compliance management system.

The typical CBTA feedback process should use defined training metrics to collect data in order to:

- identify trends and ensure corrective action where necessary
- identify collective training needs
- review, adjust and continuously improve the training program
- further develop the training system; and
- standardize the instructors

Typical metrics include but are not limited to:

- differences in success rates between training topics
- grading metrics*
- trainee's and instructor's feedback, which provides individual perspective as to the quality and effectiveness of the training
- differences in success rates between different trainee cohorts
- distribution of errors for various training topics, scenarios and aircraft class or types
- distribution of level of performance within the range of competencies and outcomes
- instructor inter-rater reliability data

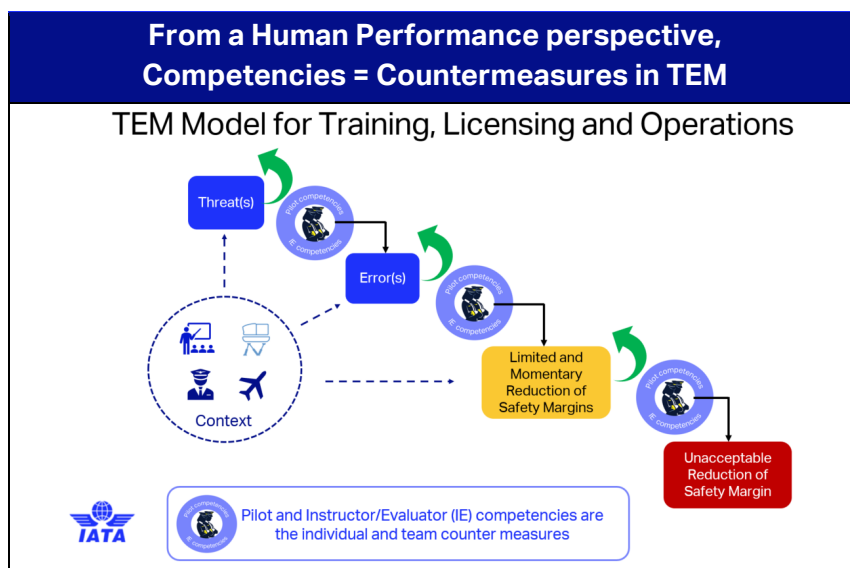
Grading metrics* Example of grading metrics based on Evidence-Based Training European Regulation
Level 0 (competent metrics): The information whether the pilot(s) is (are) competent or not.
Level 1 (competency metrics): Level of performance reflected by numeric grade of the competencies (e.g., 1 to 5).
Level 2 (observable behavior metrics): the instructors record OBs predetermined or required by the organization (Regulatory or Policy requirements).
Level 3 (TEM metrics): the instructor records Threats, error or Reduction of Safety Margin predetermined or required by the organization.

Chapter 7 Competencies and Threat and Error Management (TEM)

The role of the competencies within the Threat and Error Management model has been formalized at international level.

ICAO Doc 9868, PANS-TRG, Amendment 7, states that: *“From a competency-based training and assessment perspective, the competencies of the approved adapted competency model provide individual and team countermeasures to threats and errors and undesired aircraft states.*

The following schematic is used as a pedagogic tool to support the above-mentioned concept.



Note: *“Limited and Momentary Reduction of Safety Margin”* describes an outcome of TEM where the pilot or the instructor/evaluator demonstrated Observable Behaviors that did not allow, on few occasions, a timely management of the threats or errors. This led to a limited and momentary reduction of the safety margin.

“Unacceptable Reduction of Safety Margin” describes an outcome of TEM where the pilot or the instructor/evaluator demonstrated Observable Behaviors that did not allow a timely management of the threats or errors. This led to an unacceptable reduction of the safety margin. (For example, involuntary Undesired Aircraft State (UAS) during flight training, due to mismanagement of a stall exercise, that is recognized late or recovered late by the instructor).

From a practical perspective, the competencies being the countermeasures in the TEM model:

- The more Observable Behaviors are timely demonstrated when required, the better the threat and error management should be. This should lead to the maintenance of the safety margins.
- Per opposition, the Observable Behaviors that have not been demonstrated when they were required could result in the mismanagement of the threats and errors. This could lead to a reduction of safety margins.

Chapter 8 Performance Assessment

Reminder, in this guidance material, the following terminology is applied:

- "Trainee" means a pilot or an instructor/evaluator receiving training or evaluation
- "Trainer" means an instructor/evaluator conducting training or evaluation

8.1 Process to assess the performance

To assess the trainee's performance, the trainer should apply the following process:

- Observe performance (behaviors) during the training or evaluation.
- Record details of effective and ineffective performance (behaviors) observed during the training or evaluation ('record' in this context refers to instructors taking notes).
- Classify observations against the Observable Behaviors (OBs) and allocate the OBs to each competency (or competencies).
- Assess the performance by determining the root cause(s) according to the competency framework. Low performance would normally indicate the area of performance to be remediated in subsequent training.

Note: Assessment guides for single pilot operations, for multi-crew operations and or instructor/evaluator are provided in Appendices C, D and E respectively. These assessment guides are used to eliminate different interpretations among instructors/evaluators and ensure that valid and reliable evidence is gathered during the assessments.

Remark: Depending on the training objective, the trainer guidance may indicate competencies that may be irrelevant to be assessed or recorded. In that case, the trainer will record "N/O" (NOT OBSERVABLE).

8.2 Competencies assessment methodology

IATA recommends applying the following methodology to ensure the maximum level of consistency and objectivity to assessments performed in a CBTA program.

To assess how well the trainee demonstrated the competency during training or evaluation, the trainer should assess the associated OBs of each competency against the following dimensions by determining:

- How many OBs the trainee demonstrated when they were required,
- How often the trainee demonstrated the OB(s) when they were required; and
- What was the outcome of the threat management and error management relating specifically to the competency being assessed?

The competency assessment (**HOW WELL**) is the combination of the number of OBs demonstrated and their frequency of demonstration and the consequential outcome of the Threat and Error Management relating specifically to the competency being assessed.

The "**HOW MANY**" dimension provides evidence related to the acquisition of the competency.

The "**HOW OFTEN**" dimension provides evidence related to the robustness of the competency.

The "**Outcome of TEM**" dimension provides evidence related to the effectiveness of the competency as individual and team countermeasures against the threats and errors.

Depending on the training objectives of the session, the "**Outcome of TEM**" dimension may not be relevant to assess the competencies. In this case refer to **8.3** and **9.1** below.

8.2.1 Word Pictures of "HOW MANY" dimension

The following word pictures support the competency assessment methodology by providing a scale for the "**HOW MANY**" dimension regarding a number of OBs demonstrated when required:

HOW MANY
few, hardly any
some
many
most
all, almost all

8.2.2 Word Pictures of "HOW OFTEN" dimension

The following word pictures support the competency assessment methodology by providing a scale for the "**HOW OFTEN**" dimension regarding a frequency of OBs demonstrated when required:

HOW OFTEN
rarely
occasionally
regularly
regularly*
Always, almost always

regularly* This regularly* is interpreted as very often

8.2.3 Word Pictures of the “OUTCOME of TEM” dimension

The following word pictures support the competency assessment methodology by providing a scale for the “**Outcome of TEM**” dimension relating specifically to the competency being assessed:

OUTCOME of TEM <small>relating specifically to the competency being assessed</small>	The demonstrated Observable Behaviors <small>relating specifically to the competency being assessed</small>
unsafe situation	<input type="checkbox"/> Did not allow a timely management of the threats or errors <input type="checkbox"/> This led to (or could have led to**) an unacceptable reduction of the safety margin.
not an unsafe situation	<input type="checkbox"/> Did not allow, on few occasions, a timely management of the threats or errors <input type="checkbox"/> This led to (or could have led to**) a limited and momentary reduction of the safety margin.
safe	<input type="checkbox"/> Allowed the anticipation and mitigation of many expected threats, the recognition and mitigation of the unexpected threats and the timely detection and correction of the errors. <input type="checkbox"/> This led to (or could have led to**) the maintenance of the safety margin.
safe*	<input type="checkbox"/> Allowed the anticipation and mitigation of most expected threats, the recognition and mitigation of the unexpected threats and the promptly detection and correction of the errors. <input type="checkbox"/> This led to (or could have led to**) an improvement of the safety margin.
enhance safety	<input type="checkbox"/> Allowed the anticipation and mitigation of all expected threats, the recognition and mitigation of the unexpected threats and the immediate detection and correction of the errors. <input type="checkbox"/> This led to (or could have led to**) an enhancement of the safety margin.

safe*: This word picture (safe*) illustrates a more pro-active safety level.

or could have led to** must be used to:

- Integrate of the outcome of TEM dimension when the conditions of training are significantly limited, e.g., classroom, part task trainer, ...
- Ensure that the OUTCOME of TEM dimension relates specifically to the competency being assessed.

During the competency assessment, the TEM model assists the instructor/evaluator in understanding the interrelationship between safety and the trainee’s performance in dynamic and challenging operational contexts.

Outcome of TEM for Instructor/Evaluator competency assessment

The OUTCOME of TEM dimension is applicable for instructor/evaluator performance assessment.

In the context of training and licensing, the OUTCOME of TEM dimension integrates the specific threats, errors and potential reductions of safety margins that could happen or result from the conduct of training or evaluation activities.

In the context of training and licensing, potential threats could be:

- Event requiring an evacuation of the facilities or of the device
- Facilities, training device or equipment not appropriate for the training objective (Actual Malfunctions, MEL, Device certification...)
- Training interruption or disruption (FFS down, ATC constraint, phone call, ...)
- Any disruption that generates time pressure (late arrival of the trainee, trainee does not show up, training time reduced...)
- Last minute change of training rostering (session content, trainees...)
- Inappropriate official documentation (FCOM not up to date, training programs deficiencies ...)
- ...

In the context of training and licensing, potential errors could be:

The instructor/evaluator:

- Does not prepare sufficiently the training session (not familiar enough with the training facilities access, with the training device functionalities, with the IT procedures...)
- Has hobby horses
- Does not manage time appropriately
- Does not manage priorities appropriately (e.g., during flight instruction focuses on instruction instead of safety of the flight, ...)
- Omits safety briefings elements or training tool limitations
- Intervenes inappropriately (too early or too late)
- Refers to personal customized documentation
- Uses inappropriate teaching method (does not facilitate, ...)
- Generates unrealistic or inappropriate conditions for the training
- Demonstrates negative attitude towards trainees (is careless, is harsh, has bias, is lacking empathy, ...)
- Does not allocate enough time for trainee feedback

- Is not familiar with training policy and procedures
- Omits to provide necessary advice to improve performance
- Cuts corners with the training program
- Does not apply organizational performance standards
- ...

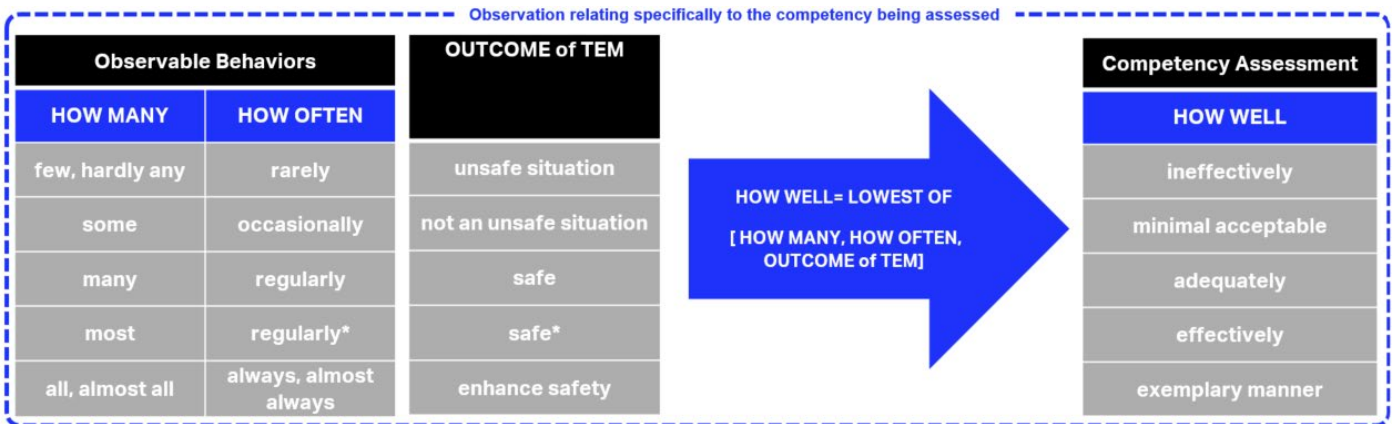
In the context of training and licensing, potential reduction of safety margins could be:

- Limited and momentary reduction of the safety margin
 - Temporarily involuntary reduction of safety margin during training (e.g., mismanagement of a stall exercise) recognized and timely recovered by the instructor
 - Temporarily Negative transfer of training, recognized and timely recovered by the instructor
 - Temporarily Negative training, recognized and timely recovered by the instructor,
 - ...
- Unacceptable reduction of safety margins
 - Involuntary reduction of safety margin during training (e.g., mismanagement of a stall exercise) not recognized or lately recovered by the instructor
 - Negative transfer of training not recognized or not recovered by the instructor
 - Negative training not recognized or not recovered by the instructor
 - Incident or accident during training
 - ...

Note: When the training and assessment is conducted during flight operations (example instructor/evaluator as a trainee delivering instruction in an aircraft as a flight instructor [FI]), the instructor/evaluator as trainer observes, as well, the instructor/evaluator as trainee managing the threats, the errors, and the potential reductions of safety margins in the operational context.

8.2.4 Competency Assessment: Abbreviated word pictures

The competency assessment is illustrated by the **“HOW WELL”** terminology which reflects the lowest level of each dimension (**“HOW MANY”** - **“HOW OFTEN”** - **“OUTCOME of TEM”**).



8.2.5 Examples

Example: Competency assessment is effective

When they were required, the trainee has regularly* (very often) demonstrated most of the OBs during training or evaluation. This led to an improvement of the safety margin.

Observation relating specifically to the competency being assessed

Observable Behaviors		OUTCOME of TEM	➔	Competency Assessment
HOW MANY	HOW OFTEN			HOW WELL
few, hardly any	rarely	unsafe situation	HOW WELL= LOWEST OF [HOW MANY, HOW OFTEN, OUTCOME of TEM]	ineffectively
some	occasionally	not an unsafe situation		minimal acceptable
many	regularly	safe		adequately
most	regularly*	safe*		effectively
all, almost all	always, almost always	enhance safety		exemplary manner

Example: Competency assessment is minimal acceptable

When they were required, the trainee has occasionally demonstrated many of the OBs during training or evaluation. Even if the safety margins have been maintained (OUTCOME of TEM is safe), the frequency of the OBs demonstration (HOW OFTEN = occasionally) indicates a lack of the competency's robustness.



Example: Competency assessment is minimal acceptable

When they were required, the trainee has regularly demonstrated many of the OBs during training or evaluation. Nevertheless, the demonstrated Observable Behaviors did not allow, on few occasions, a timely management of the threats or errors.

This led to a limited and momentary reduction of the safety margin. (OUTCOME of TEM= not an unsafe situation).

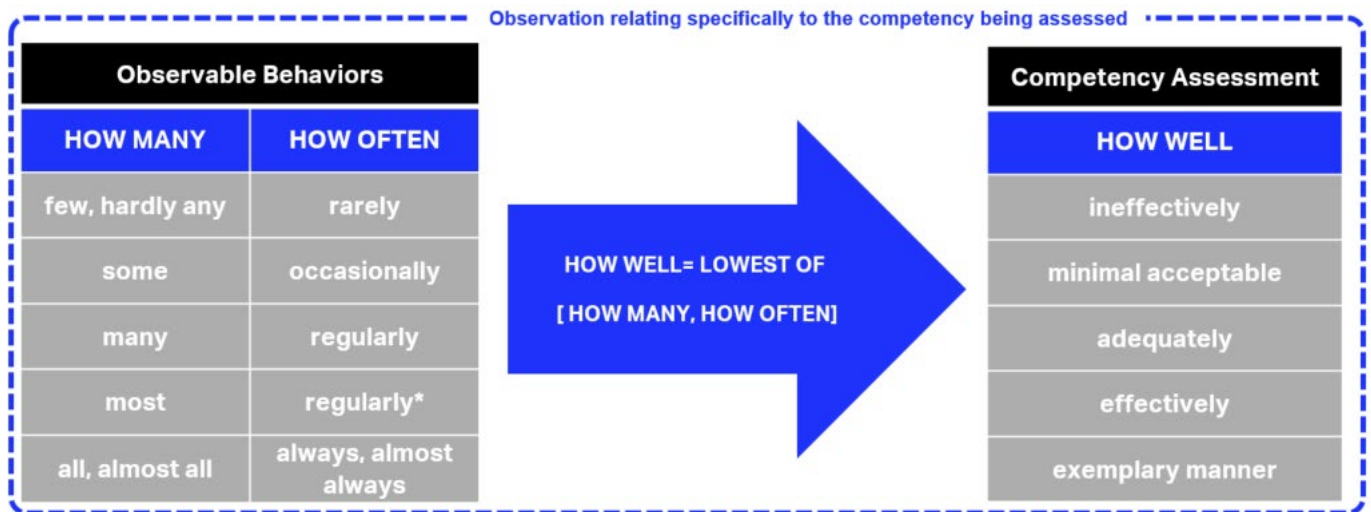


8.3 Specific case

In some cases, the outcome of the TEM dimension may not be relevant to assess the competency in regard to the training objectives of the session, e.g., session dedicated to psychomotor skill practice with the trainer taking care of the threat and error management aspects.

In that case, the trainer must assess the associated OBs of each competency against the following dimensions, by determining:

- How many OBs the trainee demonstrated when they were required.
- How often the trainee demonstrated the OB(s) when they were required.



8.3.1 Examples

Example: Competency assessment is ineffective

When they were required, the trainee has regularly demonstrated only few of the OBs during training or evaluation. Even if the OBs have been demonstrated regularly, the limited number of OBs indicates a lack of competency acquisition by the trainee.

Observation relating specifically to the competency being assessed

Observable Behaviors		➔	Competency Assessment
HOW MANY	HOW OFTEN		HOW WELL
few, hardly any	rarely	HOW WELL= LOWEST OF [HOW MANY, HOW OFTEN]	ineffectively
some	occasionally		minimal acceptable
many	regularly		adequately
most	regularly*		effectively
all, almost all	always, almost always		exemplary manner

Example: Competency assessment is adequate

When they were required, the trainee has regularly demonstrated many of the OBs during training or evaluation.

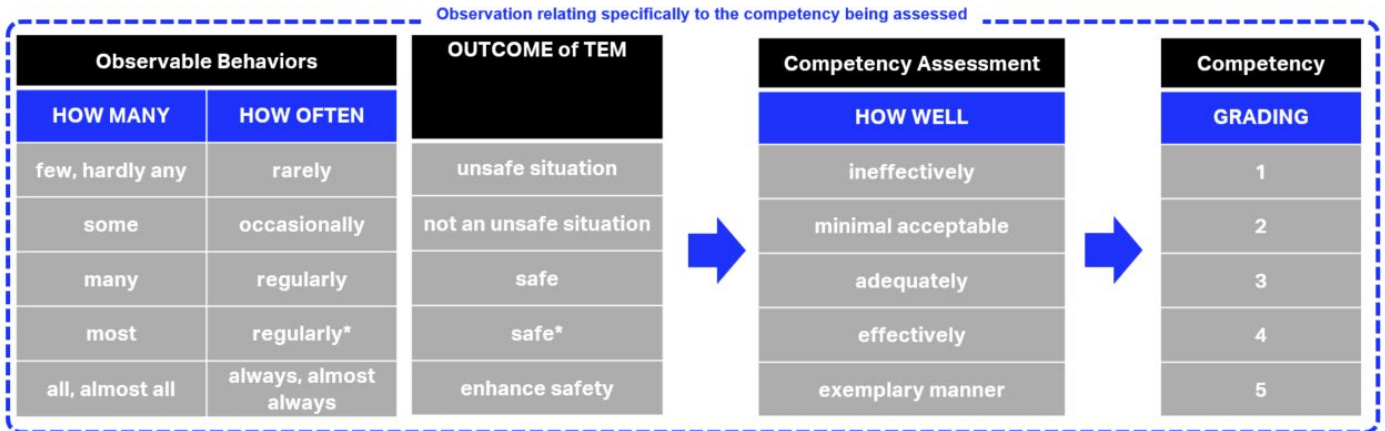
Observation relating specifically to the competency being assessed

Observable Behaviors		➔	Competency Assessment
HOW MANY	HOW OFTEN		HOW WELL
few, hardly any	rarely	HOW WELL= LOWEST OF [HOW MANY, HOW OFTEN]	ineffectively
some	occasionally		minimal acceptable
many	regularly		adequately
most	regularly*		effectively
all, almost all	always, almost always		exemplary manner

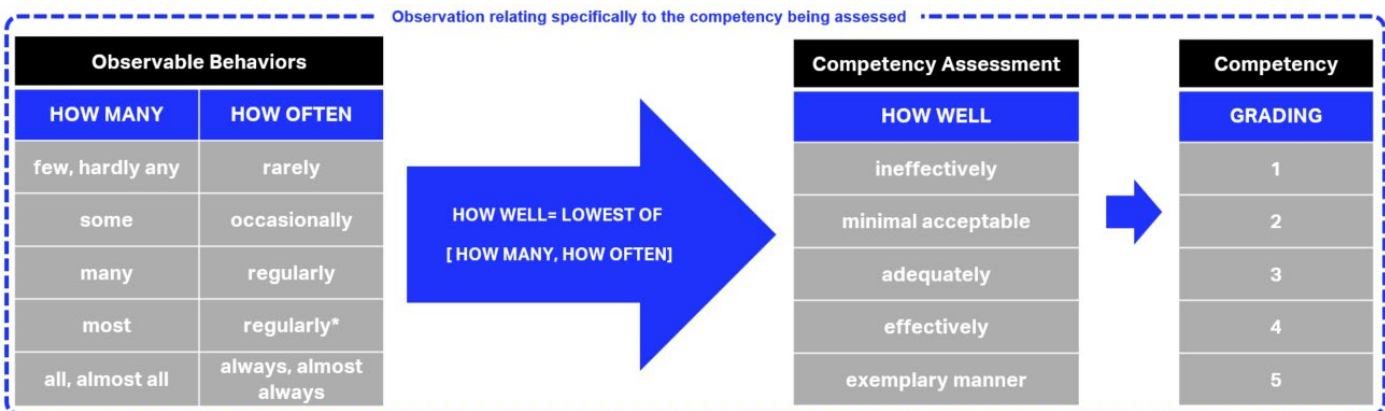
Chapter 9 Outcome of the Assessment

9.1 Grading

The grading means that the trainer relates the results of the assessment to a define scale (the aim of this defined numerical scale is to facilitate a harmonized and consistent training data collection).



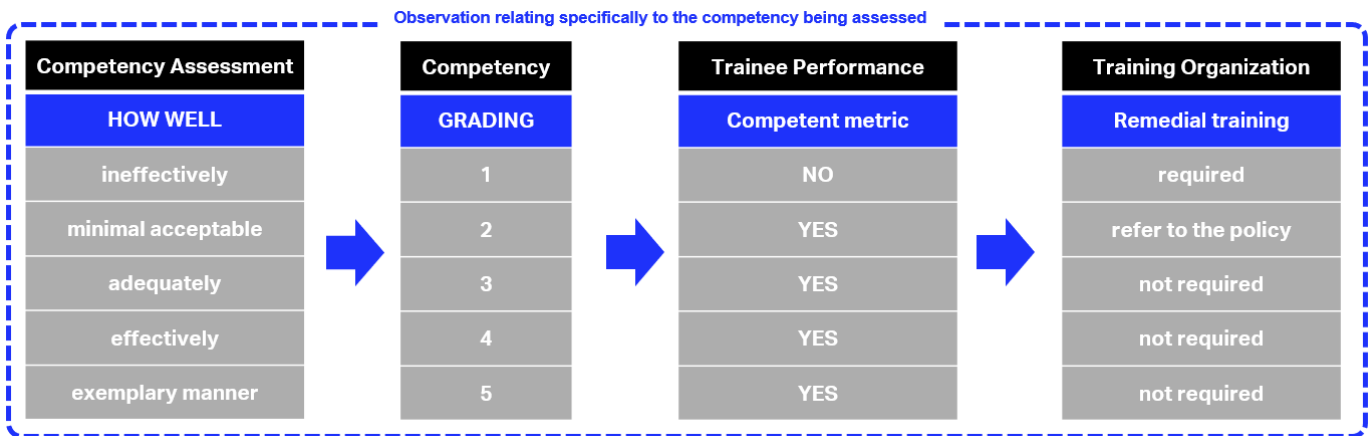
Particular case: When the training curriculum mandates the competency assessment to be based on Observable Behaviors only.



9.2 Trainee Performance

According to the industry best practices, the AOC or ATO policy should reflect the following:

- The trainee should demonstrate an **adequate level of performance corresponding to a grade 3** for each pilot, and instructor/evaluator competency.
- The trainee may demonstrate a **minimum acceptable level of performance corresponding to a grade 2** within a limited number of pilot, or instructor/evaluator competencies.



Each AOC and ATO should address the management of any performance below the adequate level of performance (grade 3) via formal procedures described within the training manual (see 3.1 Assessment plan content).

Example of policy for the management of performance below adequate (grade 3)

A tailored Training (that may include remedial training) is required for:

- Any competency graded 1, or
- two successive grades 2 in a same competency.
- Any competency graded 2 if the trainer evaluates that the trainee will not be able to demonstrate an adequate performance (grade 3) during the next training or evaluation session.

Appendix A: Pilot Competencies

Competency Description	Observable behaviors
<p>Application of knowledge</p> <p>Demonstrates knowledge and understanding of relevant information, operating instructions, aircraft systems and the operating environment</p>	<p>OB 0.1 Demonstrates practical and applicable knowledge of limitations and systems and their interaction</p> <p>OB 0.2 Demonstrates required knowledge of published operating instructions</p> <p>OB 0.3 Demonstrates knowledge of the physical environment, the air traffic environment including routings, weather, airports and the operational infrastructure</p> <p>OB 0.4 Demonstrates appropriate knowledge of applicable legislation</p> <p>OB 0.5 Knows where to source required information</p> <p>OB 0.6 Demonstrates a positive interest in acquiring knowledge</p> <p>OB 0.7 Is able to apply knowledge effectively</p>
<p>Application of procedures and compliance with regulations</p> <p>Identifies and applies appropriate procedures in accordance with published operating instructions and applicable regulations</p>	<p>OB 1.1 Identifies where to find procedures and regulations</p> <p>OB 1.2 Applies relevant operating instructions, procedures and techniques in a timely manner</p> <p>OB 1.3 Follows SOPs unless a higher degree of safety dictates an appropriate deviation</p> <p>OB 1.4 Operates aeroplane systems and associated equipment correctly</p> <p>OB 1.5 Monitors aircraft systems status</p> <p>OB 1.6 Complies with applicable regulations.</p> <p>OB 1.7 Applies relevant procedural knowledge</p>
<p>Communication</p> <p>Communicates through appropriate means in the operational environment, in both normal and non normal situations</p>	<p>OB 2.1 Determines that the recipient is ready and able to receive information</p> <p>OB 2.2 Selects appropriately what, when, how and with whom to communicate</p> <p>OB 2.3 Conveys messages clearly, accurately and concisely</p> <p>OB 2.4 Confirms that the recipient demonstrates understanding of important information</p> <p>OB 2.5 Listens actively and demonstrates understanding when receiving information</p> <p>OB 2.6 Asks relevant and effective questions</p>

	<p>OB 2.7 Uses appropriate escalation in communication to resolve identified deviations</p> <p>OB 2.8 Uses and interprets non-verbal communication in a manner appropriate to the organizational and social culture</p> <p>OB 2.9 Adheres to standard radiotelephone phraseology and procedures</p> <p>OB 2.10 Accurately reads, interprets, constructs and responds to datalink messages in English</p>
<p>Aeroplane Flight Path Management, automation</p> <p>Controls the flight path through automation</p>	<p>OB 3.1 Uses appropriate flight management, guidance systems and automation, as installed and applicable to the conditions</p> <p>OB 3.2 Monitors and detects deviations from the intended flight path and takes appropriate action</p> <p>OB 3.3 Manages the flight path safely to achieve optimum operational performance</p> <p>OB 3.4 Maintains the intended flight path during flight using automation while managing other tasks and distractions</p> <p>OB 3.5 Selects appropriate level and mode of automation in a timely manner considering phase of flight and workload</p> <p>OB 3.6 Effectively monitors automation, including engagement and automatic mode transitions</p>
<p>Aeroplane Flight Path Management, manual control</p> <p>Controls the flight path through manual control</p>	<p>OB 4.1 Controls the aircraft manually with accuracy and smoothness as appropriate to the situation</p> <p>OB 4.2 Monitors and detects deviations from the intended flight path and takes appropriate action</p> <p>OB 4.3 Manually controls the aeroplane using the relationship between aeroplane attitude, speed and thrust, and navigation signals or visual information</p> <p>OB 4.4 Manages the flight path safely to achieve optimum operational performance</p> <p>OB 4.5 Maintains the intended flight path during manual flight while managing other tasks and distractions</p> <p>OB 4.6 Uses appropriate flight management and guidance systems, as installed and applicable to the conditions</p> <p>OB 4.7 Effectively monitors flight guidance systems including engagement and automatic mode transitions</p>

<p>Leadership and Teamwork</p> <p>Influences others to contribute to a shared purpose</p> <p>Collaborates to accomplish the goals of the team</p>	<p>OB 5.1 Encourages team participation and open communication</p> <p>OB 5.2 Demonstrates initiative and provides direction when required</p> <p>OB 5.3 Engages others in planning</p> <p>OB 5.4 Considers inputs from others</p> <p>OB 5.5 Gives and receives feedback constructively</p> <p>OB 5.6 Addresses and resolves conflicts and disagreements in a constructive manner</p> <p>OB 5.7 Exercises decisive leadership when required</p> <p>OB 5.8 Accepts responsibility for decisions and actions</p> <p>OB 5.9 Carries out instructions when directed</p> <p>OB 5.10 Applies effective intervention strategies to resolve identified deviations</p> <p>OB 5.11 Manages cultural and language challenges, as applicable</p>
<p>Problem Solving and Decision-Making</p> <p>Identifies precursors, mitigates problems; and makes decisions</p>	<p>OB 6.1 Identifies, assesses and manages threats and errors in a timely manner</p> <p>OB 6.2 Seeks accurate and adequate information from appropriate sources</p> <p>OB 6.3 Identifies and verifies what and why things have gone wrong, if appropriate</p> <p>OB 6.4 Perseveres in working through problems while prioritizing safety</p> <p>OB 6.5 Identifies and considers appropriate options</p> <p>OB 6.6 Applies appropriate and timely decision-making techniques</p> <p>OB 6.7 Monitors, reviews and adapts decisions as required</p> <p>OB 6.8 Adapts when faced with situations where no guidance or procedure exists</p> <p>OB 6.9 Demonstrates resilience when encountering an unexpected event</p>

<p>Situation awareness and management of information</p> <p>Perceives, comprehends and manages information and anticipates its effect on the operation</p>	<p>OB 7.1 Monitors and assesses the state of the aeroplane and its systems</p> <p>OB 7.2 Monitors and assesses the aeroplane's energy state, and its anticipated flight path.</p> <p>OB 7.3 Monitors and assesses the general environment as it may affect the operation</p> <p>OB 7.4 Validates the accuracy of information and checks for gross errors</p> <p>OB 7.5 Maintains awareness of the people involved in or affected by the operation and their capacity to perform as expected</p> <p>OB 7.6 Develops effective contingency plans based upon potential risks associated with threats and errors</p> <p>OB 7.7 Responds to indications of reduced situation awareness</p>
<p>Workload Management</p> <p>Maintain available workload capacity by prioritizing and distributing tasks using appropriate resources</p>	<p>OB 8.1 Exercises self-control in all situations</p> <p>OB 8.2 Plans, prioritizes and schedules appropriate tasks effectively</p> <p>OB 8.3 Manages time efficiently when carrying out tasks</p> <p>OB 8.4 Offers and gives assistance</p> <p>OB 8.5 Delegates tasks</p> <p>OB 8.6 Seeks and accepts assistance, when appropriate</p> <p>OB 8.7 Monitors, reviews and cross-checks actions conscientiously</p> <p>OB 8.8 Verifies that tasks are completed to the expected outcome</p> <p>OB 8.9 Manages and recovers from interruptions, distractions, variations and failures effectively while performing tasks</p>

Appendix B: Instructor/Evaluator Competencies

Competency Description	Observable behaviors
Pilot Competencies Refer to the description in the Pilot Competencies template (Appendix A)	Refer to observable behaviors in the Pilot Competencies template (Appendix A)
Management of the learning environment Ensures that the instruction, assessment and evaluation are conducted in a suitable and safe environment	IOB 2.1 Applies TEM in the context of instruction/evaluation IOB 2.2 Briefs on safety procedures for situations that are likely to develop during instruction/evaluation IOB 2.3 Intervenes appropriately, at the correct time and level (e.g., progresses from verbal assistance to taking over control) IOB 2.4 Resumes instruction/evaluation as practicable after any intervention IOB 2.5 Plans and prepares training media, equipment and resources IOB 2.6 Briefs on training devices or aircraft limitations that may influence training, when applicable IOB 2.7 Creates and manages conditions (e.g., airspace, ATC, weather, time, etc.) to be suitable for the training objectives IOB 2.8 Adapts to changes in the environment whilst minimizing training disruptions IOB 2.9 Manages time, training media and equipment to ensure that training objectives are met
Instruction Conducts training to develop the trainee's competencies	IOB 3.1 References approved sources (operations, technical, and training manuals, standards and regulations) IOB 3.2 States clearly the objectives and clarifies roles for the training IOB 3.3 Follows the approved training program IOB 3.4 Applies instructional methods as appropriate (e.g., explanation, demonstration, facilitation, discover with assistance, discover without assistance) IOB 3.5 Sustains operational relevance and realism IOB 3.6 Adapts the amount of instructor inputs to ensure that the training objectives are met IOB 3.7 Adapts to situations that might disrupt a planned sequence of events IOB 3.8 Continuously assesses trainee's competencies IOB 3.9 Encourages the trainee to self-assess IOB 3.10 Allows trainee to self-correct in a timely manner

	<p>IOB 3.11 Applies trainee-centered feedback techniques (e.g., facilitation, etc.)</p> <p>IOB 3.12 Provides positive reinforcement</p>
<p>Interaction with the trainees Supports the trainees' learning and development</p> <p>and</p> <p>Demonstrates exemplary behavior (role model)</p>	<p>IOB 4.1 Shows respect for the trainees (e.g., for culture, language, experience)</p> <p>IOB 4.2 Shows patience and empathy (e.g., by actively listening, reading non-verbal messages and encouraging dialogue)</p> <p>IOB 4.3 Manages trainees' barriers to learning</p> <p>IOB 4.4 Encourages engagement and mutual support</p> <p>IOB 4.5 Coaches the trainees</p> <p>IOB 4.6 Supports the goal and training policies of the operator/ATO and Authority</p> <p>IOB 4.7 Shows integrity (e.g., honesty and professional principles)</p> <p>IOB 4.8 Demonstrates acceptable personal conduct, acceptable social practices, content expertise, a model for professional and interpersonal behavior</p> <p>IOB 4.9 Actively seeks and accepts feedback to improve own performance</p>
<p>Assessment and Evaluation Assesses the competencies of the trainee</p> <p>and</p> <p>Contributes to continuous training system improvement</p>	<p>IOB 5.1 Complies with Operator/ATOs and Authority requirements</p> <p>IOB 5.2 Ensures that the trainee understands the assessment process</p> <p>IOB 5.3 Applies the competency standards and conditions</p> <p>IOB 5.4 Assesses trainee's competencies</p> <p>IOB 5.5 Performs grading</p> <p>IOB 5.6 Provides recommendations based on the outcome of the assessment</p> <p>IOB 5.7 Makes decisions based on the outcome of the summative assessment</p> <p>IOB 5.8 Provides clear feedback to the trainee</p> <p>IOB 5.9 Reports strengths and weaknesses of the training system (e.g., training environment, curriculum, assessment/evaluation) including feedback from trainees</p> <p>IOB 5.10 Suggests improvements for the training system</p> <p>IOB 5.11 Produces reports using appropriate forms and media</p>

Appendix C: Assessment Guide - Single Pilot Operations (SPO)

For the purpose of this guide, SPO means the operation of an aircraft by one pilot without any other crew member (flight crew member and cabin crew member). This guide applies during pilot training and assessment in SPO (including Ab initio training in SPO).

Application of knowledge (KNO)	
Description:	Demonstrates knowledge and understanding of relevant information, operating instructions, aircraft systems and the operating environment
OB 0.1	Demonstrates practical and applicable knowledge of limitations and systems and their interaction
<i>Explanation</i>	<p><i>The knowledge referred to in OB 0.1 should be:</i></p> <ul style="list-style-type: none"> - covered in the appropriate parts of the Operations Manual, or - covered in the appropriate parts of the Aeroplane Flight Manual and Pilot Operating Handbook, or - covered in the appropriate parts of the Training and Procedures manual, or - defined in the training objectives of the lesson plan.
OB 0.2	Demonstrates required knowledge of published operating instructions
<i>Explanation</i>	<p><i>The knowledge referred to in OB 0.2 should be:</i></p> <ul style="list-style-type: none"> - covered in the appropriate parts of the Operations Manual, or - covered in the appropriate parts of the Aeroplane Flight Manual and Pilot Operating Handbook, or - covered in the appropriate parts of the Training and procedures Manual, or - defined in the training objectives of the lesson plan.
OB 0.3	Demonstrates knowledge of the physical environment, the air traffic environment including routings, weather, airports and the operational infrastructure
<i>Explanation</i>	<p><i>The knowledge referred to in OB 0.3 should be:</i></p> <ul style="list-style-type: none"> - covered in the appropriate parts of the Operations Manual, or - covered in the appropriate parts of the Training and procedures Manual, or - defined in the training objectives of the lesson plan.

OB 0.4	Demonstrates appropriate knowledge of applicable legislation.
<i>Explanation</i>	<p><i>The knowledge referred to in OB 0.4 should be defined in the training objectives of the lesson plan. (e.g., National Directives, European Basic Regulation...)</i></p> <p><i>The demonstration of OB 0.4 is specifically relevant to assess if the trainee/candidate has achieved the training objectives of the subject "Air Law" during theoretical knowledge instruction.</i></p>
OB 0.5	Knows where to source required information
<i>Explanation</i>	<p><i>The demonstration of OB 0.5 generally requires an oral assessment by the instructor or evaluator.</i></p> <p><i>The demonstration of OB 0.5 should not be confused with the demonstration of OB 1.1 Identifies where to find procedures and regulations.</i></p> <p><i>The demonstration of OB 0.5 is achieved when the trainee/candidate demonstrates knowledge to source an information other than procedures and regulations.</i></p> <p><i>The demonstration of OB 0.5 is specifically relevant to assess if the trainee/candidate has achieved the training objectives of the different subjects during theoretical knowledge instruction.</i></p>
OB 0.6	Demonstrates a positive interest in acquiring knowledge
<i>Explanation</i>	<p><i>The demonstration of OB 0.6 is achieved when the trainee/candidate proactively looks for the specific information that is necessary to carry out the activity or to achieve the training objective.</i></p> <p><i>E.g., the trainee demonstrates adherence to the trainee's booklet and/or training manual for the session preparation. The trainee demonstrates curiosity for additional information and receives positively instructor guidance for knowledge acquisition.</i></p>
OB 0.7	Is able to apply knowledge effectively
<i>Explanation</i>	<p><i>The demonstration of OB 0.7 relates to a level of performance regarding the competence "Application of Knowledge".</i></p> <p><i>The demonstration of OB 0.7 is specifically relevant to assess if the trainee/candidate has achieved the training objectives during the theoretical knowledge instruction.</i></p>

Application of procedures and compliance with regulations (PRO)	
Description:	Identifies and applies appropriate procedures in accordance with published operating instructions and applicable regulations
OB 1.1	Identifies where to find procedures and regulations
<i>Explanation</i>	<p><i>The procedures and regulations referred to in OB 1.1 should be covered in the appropriate parts of:</i></p> <ul style="list-style-type: none"> - <i>the Operations Manual, or</i> - <i>the Aircraft Flight Manual and Pilot Operating Handbook, or</i> - <i>the Training and procedures Manual.</i> <p><i>The demonstration of OB1.1 is achieved when the trainee/candidate can find the normal procedures including non-routine procedures (e.g., supplementary procedures, ...), the abnormal procedures and the regulatory requirements within the above-mentioned manuals.</i></p> <p><i>The demonstration of OB 1.1 should not be confused with the demonstration of OB 0.5 Knows where to source required information, see explanation OB 0.5</i></p> <p><i>Note: The identification where to find the normal checklist are covered by OB.1.3.</i></p>
OB 1.2	Applies relevant operating instructions, procedures and techniques in a timely manner
<i>Explanation</i>	<p><i>The demonstration of OB1.2 complements the demonstration of OB 1.1 by ensuring that the trainee/candidate applies the relevant operating instructions, procedures and techniques in a timely manner.</i></p> <p><i>The demonstration of OB1.2 includes "in a timely manner" criteria to ensure effective application of the relevant operating instructions, procedures and techniques.</i></p> <p><i>The demonstration of OB1.2 is facilitated by the demonstration of OB 8.2 Plans, prioritizes and schedules appropriate tasks effectively.</i></p> <p><i>The demonstration of OB1.2 facilitates the demonstration of OB 8.3 Manages time efficiently when carrying out tasks, see explanation OB 8.3</i></p> <p><i>Vocabulary</i></p> <p><i>Operating instructions</i> describe how to operate aircraft systems and their related controls.</p> <p><i>Procedures</i> provide a series of actions conducted in a certain order or manner in order to operate the aircraft.</p> <p><i>Techniques</i> describe a way of carrying out a particular task or series of actions.</p>

OB 1.3	Follows SOPs unless a higher degree of safety dictates an appropriate deviation
<i>Explanation</i>	<p><i>The demonstration of OB 1.3 is achieved when:</i></p> <ul style="list-style-type: none"> - <i>Without safety issue, the trainee/candidate systematically follows SOPs including the completion of the required checklists,</i> <li style="text-align: center;"><i>or</i> - <i>With safety issues, the trainee/candidate may apply appropriate deviations from SOPs to avoid further reduction of safety margins.</i>
OB 1.4	Operates aircraft systems and associated equipment correctly
<i>Explanation</i>	<p><i>The demonstration of OB 1.4 includes the operation of the auto-flight system.</i></p> <p><i>Nevertheless, the stick inputs and rudder inputs should not be considered for the demonstration of this OB 1.4.</i></p>
OB 1.5	Monitors aircraft systems status
<i>Explanation</i>	<p><i>The demonstration of OB 1.5 is achieved when the trainee/candidate monitors the status of the aircraft systems in accordance with the normal and abnormal procedures.</i></p> <p><i>The demonstration of OB 1.5 includes the relevant flight mode annunciator display.</i></p> <p><i>E.g., the Approach capabilities information presented on the FMA display.</i></p> <p><i>The demonstration of OB 1.5 facilitates the demonstration of OB 7.1 (SAW) "Monitors and assesses the state of the aeroplane and its systems" that mandates that the trainee/candidate assesses the potential operational impacts of the state of the aeroplane and its systems.</i></p>
OB 1.6	Complies with applicable regulations
<i>Explanation</i>	<p><i>The demonstration of OB 1.6 is achieved through the application of the appropriate parts of:</i></p> <ul style="list-style-type: none"> - <i>the Operation Manual, or</i> - <i>the Aircraft Flight Manual and Pilot Operating Handbook, or</i> - <i>the Training and procedures Manual.</i>

OB 1.7	Applies relevant procedural knowledge
<i>Explanation</i>	<p><i>The demonstration of OB 1.7 is achieved when the trainee/candidate integrates specific information (the "why" to do and the "how" to do) applicable to one or more specific procedure(s).</i></p> <p><i>E.g., Abnormal Procedure – flaps extension failure, extended downwind leg.</i></p>

Communication (COM)	
Description:	Communicates through appropriate means in the operational environment, in both normal and non-normal situations
<p>Note: In SPO, the demonstration of the competency communication may be achieved when the trainee/candidate communicates with:</p> <ul style="list-style-type: none"> – ATC – Pilot from other aircraft – Operational personnel such as dispatcher, maintenance, ground crew... 	
OB 2.1	Determines that the recipient is ready and able to receive information
<i>Explanation</i>	-
OB 2.2	Selects appropriately what, when, how and with whom to communicate
<i>Explanation</i>	-
OB 2.3	Conveys messages clearly, accurately and concisely
<i>Explanation</i>	-
OB 2.4	Confirms that the recipient demonstrates understanding of important information
<i>Explanation</i>	-
OB 2.5	Listens actively and demonstrates understanding when receiving information
<i>Explanation</i>	-

OB 2.6	Asks relevant and effective questions
<i>Explanation</i>	-
OB 2.7	Uses appropriate escalation in communication to resolve identified deviations
<i>Explanation</i>	-
OB 2.8	Uses and interprets non-verbal communication in a manner appropriate to the organizational and social culture
<i>Explanation</i>	-
OB 2.9	Adheres to standard radiotelephone phraseology and procedures
<i>Explanation</i>	<p><i>The demonstration of OB 2.9 is achieved when the trainee/candidate adheres to the standard radiotelephone phraseology and procedures described in ICAO Annex 10 and ICAO Doc 4444, PANS-ATM.</i></p> <p><i>The radiotelephone phraseology and procedures prescribe how to establish the communication, how to confirm the reception and the transmission of information, and how to clarify received instruction.</i></p>
OB 2.10	Accurately reads, interprets, constructs and responds to datalink messages in English
<i>Explanation</i>	-

Aeroplane flight path management — automation (FPA)

Description:	Controls the flight path through automation
<i>Explanation</i>	<i>The aeroplane flight path is controlled through automation as soon as the autopilot (AP) is engaged.</i>
OB 3.1	Uses appropriate flight management, guidance systems and automation, as installed and applicable to the conditions
<i>Explanation</i>	<i>The demonstration of OB 3.1 is achieved when the trainee/candidate uses appropriately the flight management (e.g., FMS, FMGS), the guidance systems (i.e., FD ON or OFF), and the automation (i.e., AP ON and A/T ON or OFF) according to the operational and environmental context.</i>

OB 3.2	Monitors and detects deviations from the intended flight path and takes appropriate action
<i>Explanation</i>	-
OB 3.3	Manages the flight path to achieve optimum operational performance
<i>Explanation</i>	<i>The demonstration of OB 3.3 is achieved when the trainee/candidate optimizes the lateral navigation and the vertical navigation by adopting appropriate speed and power.</i>
OB 3.4	Maintains the intended flight path during flight using automation whilst managing other tasks and distractions
<i>Explanation</i>	-
OB 3.5	Selects appropriate level and mode of automation in a timely manner considering phase of flight and workload
<i>Explanation</i>	<i>The demonstration of OB 3.5 is achieved when the trainee/candidate is able to select and to adapt the appropriate combination of automation in accordance with the phase of flight and/or the level of workload. E.g., operating an instrument approach in managed mode iso selected mode due to the level of workload.</i>
OB 3.6	Effectively monitors automation, including engagement and automatic mode transitions
<i>Explanation</i>	<i>The demonstration of OB 3.6 includes the monitoring of the flight mode annunciator display.</i>

Aeroplane flight path management — manual control (FPM)	
Description:	Controls the flight path through manual control
<i>Explanation</i>	<i>The aeroplane flight path is manually controlled as soon as the autopilot (AP) is disconnected.</i>
OB 4.1	Controls the aircraft manually with accuracy and smoothness as appropriate to the situation
<i>Explanation</i>	<i>The accuracy criteria may be defined by the reference to a regulatory flight path management tolerance and/or the appropriate part of Operations Manual. E.g.:</i> <ul style="list-style-type: none"> - <i>Starting a go-around at decision height/altitude at + 50 ft/- 0 ft</i>

	<ul style="list-style-type: none"> - <i>On radio aids at $\pm 5^\circ$</i> - <i>Speed with all engines operating at ± 5 knots</i>
OB 4.2	Monitors and detects deviations from the intended flight path and takes appropriate action
<i>Explanation</i>	-
OB 4.3	Manually controls the aeroplane using the relationship between aeroplane attitude, speed and power, and navigation signals or visual information
<i>Explanation</i>	<p><i>The demonstration of OB 4.3 is achieved when the trainee/candidate manually controls the flight path in the following conditions:</i></p> <ul style="list-style-type: none"> - <i>autopilot is OFF, and</i> - <i>flight director is OFF, and</i> - <i>A/T is OFF.</i>
OB 4.4	Manages the flight path to achieve optimum operational performance
<i>Explanation</i>	<i>The demonstration of OB 4.4 is achieved when the trainee/candidate optimizes the lateral navigation and the vertical navigation by adopting appropriate speed and power.</i>
OB 4.5	Maintains the intended flight path during manual flight whilst managing other tasks and distractions
<i>Explanation</i>	-
OB 4.6	Uses appropriate flight management and guidance systems, as installed and applicable to the conditions
<i>Explanation</i>	<i>The demonstration of OB 4.6 is achieved when the trainee/candidate uses appropriately the flight management (e.g., FMS, FMGS), the guidance systems (i.e., FD ON or OFF) and the A/T (ON or OFF) according to the operational and environmental context.</i>
OB 4.7	Effectively monitors flight guidance systems including engagement and automatic mode transitions
<i>Explanation</i>	<i>The demonstration of OB 4.7 includes the monitoring of the flight mode annunciator display.</i>

Leadership and teamwork (LTW)	
Description:	<p>Influences others to contribute to a shared purpose</p> <p>Collaborates to accomplish the goals of the team</p>
<p>Note: In SPO, the demonstration of the competency leadership and teamwork:</p> <ul style="list-style-type: none"> – may be achieved when the trainee/candidate interacts with operational personnel such as dispatch, maintenance, ground crew... – is not possible when the aircraft first moves under its own power for the purpose of taking-off until the post flight operations 	
OB 5.1	Encourages team participation and open communication
<i>Explanation</i>	<p><i>The demonstration of OB 5.1 may be achieved when the trainee/candidate performs the dispatch duties and/or performs the aero plane post-flight operations by encouraging collaboration with operational personnel.</i></p> <p><i>The demonstration of OB 5.1 is irrelevant when the aircraft first moves under its own power for the purpose of taking-off until the post flight operations.</i></p>
OB 5.2	Demonstrates initiative and provides direction when required
<i>Explanation</i>	<p><i>The demonstration of OB 5.2 may be achieved when the trainee/candidate performs the dispatch duties and/or performs the aero plane post-flight operations by providing solutions to the operational personnel.</i></p> <p><i>The demonstration of OB 5.2 is irrelevant when the aircraft first moves under its own power for the purpose of taking-off until the post flight operations.</i></p>
OB 5.3	Engages others in planning
<i>Explanation</i>	<p><i>The demonstration of OB 5.3 may be achieved when the trainee/candidate performs the dispatch duties and/or performs the aero plane post-flight operations by planning relevant tasks with operational personnel.</i></p> <p><i>The demonstration of OB 5.3 is irrelevant when the aircraft first moves under its own power for the purpose of taking-off until the post flight operations.</i></p>

OB 5.4	Considers inputs from others
<i>Explanation</i>	<p><i>The demonstration of OB 5.4 may be achieved when the trainee/candidate performs the dispatch duties and/or performs the aero plane post-flight operations by providing feedback to operational personnel.</i></p> <p><i>The demonstration of OB 5.4 is irrelevant when the aircraft first moves under its own power for the purpose of taking-off until the post flight operations.</i></p>
OB 5.5	Gives and receives feedback constructively
<i>Explanation</i>	<p><i>The demonstration of OB 5.5 may be achieved when the trainee/candidate performs the dispatch duties and/or performs the aero plane post-flight operations by maintaining the collaboration with the operational personnel while giving or receiving feedback.</i></p> <p><i>The demonstration of OB 5.5 is irrelevant when the aircraft first moves under its own power for the purpose of taking-off until the post flight operations.</i></p>
OB 5.6	Addresses and resolves conflicts and disagreements in a constructive manner
<i>Explanation</i>	<p><i>The demonstration of OB 5.6 may be achieved when the trainee/candidate performs the dispatch duties and/or performs the aero plane post-flight operations by addressing conflicts and disagreements in a non-judgmental manner with operational personnel.</i></p> <p><i>The demonstration of OB 5.6 is irrelevant when the aircraft first moves under its own power for the purpose of taking-off until the post flight operations.</i></p>
OB 5.7	Exercises decisive leadership when required
<i>Explanation</i>	<p><i>The demonstration of OB 5.7 may be achieved when the trainee/candidate performs the dispatch duties and/or performs the aero plane post-flight operations by imposing to operational personnel, an adequate solution when time and/or safety are critical.</i></p> <p><i>The demonstration of OB 5.7 is irrelevant when the aircraft first moves under its own power for the purpose of taking-off until the post flight operations.</i></p>
OB 5.8	Accepts responsibility for decisions and actions
<i>Explanation</i>	<p><i>The demonstration of OB 5.8 may be achieved when the trainee/candidate performs the dispatch duties and/or performs the aero plane post-flight operations by bearing their accountabilities toward operational personnel.</i></p> <p><i>The demonstration of OB 5.8 is irrelevant when the aircraft first moves under its own power for the purpose of taking-off until the post flight operations.</i></p>

OB 5.9	Carries out instructions when directed
<i>Explanation</i>	<p><i>The demonstration of OB 5.9 may be achieved when the trainee/candidate performs the dispatch duties and/or performs the aero plane post-flight operations by carrying out instructions directed by operational personnel outside the scope of the application of procedures.</i></p> <p><i>The demonstration of OB 5.9 is irrelevant when the aircraft first moves under its own power for the purpose of taking-off until the post flight operations.</i></p>
OB 5.10	Applies effective intervention strategies to resolve identified deviations
<i>Explanation</i>	<p><i>The demonstration of OB 5.10 may be achieved when the trainee/candidate performs the dispatch duties and/or performs the aero plane post-flight operations by applying effective intervention strategy toward operational personnel.</i></p> <p><i>The demonstration of OB 5.10 is irrelevant when the aircraft first moves under its own power for the purpose of taking-off until the post flight operations.</i></p>
OB 5.11	Manages cultural and language challenges, as applicable
<i>Explanation</i>	<p><i>The demonstration of OB 5.11 may be achieved when the trainee/candidate performs the dispatch duties and/or performs the aero plane post-flight operations by managing cultural and language challenges with operational personnel.</i></p> <p><i>The demonstration of OB 5.11 is irrelevant when the aircraft first moves under its own power for the purpose of taking-off until the post flight operations.</i></p>

Problem-solving — decision-making (PSD)	
Description:	Identifies precursors, mitigates problems, and makes decisions
<i>Explanation</i>	<p><i>The competency PSD should be distinguished from the competency SAW (Description: Perceives, comprehends, and manages information and anticipates its effect on the operation) as the demonstration of several Observable Behaviors belonging to the competency SAW facilitates further demonstration of Observable Behaviors belonging to the competency PSD.</i></p>
OB 6.1	Identifies, assesses and manages threats and errors in a timely manner
<i>Explanation</i>	<p><i>The demonstration of OB 6.1 should be distinguished from the demonstration of OB 7.6 (SAW) “develops effective contingency plans based upon potential risks associated with threats and errors”.</i></p>

	<p><i>The development of contingency plans based on potential risk belongs to SAW as the need for an immediate decision is not necessary (e.g., identification of potential adequate enroute alternate aerodromes).</i></p> <p><i>The demonstration of OB 6.1 is facilitated by the demonstration of OB 7.6 which allows the trainee/candidate to allocate more cognitive resources to effectively identify and manage real-time threats and errors.</i></p>
OB 6.2	Seeks accurate and adequate information from appropriate sources
<i>Explanation</i>	<i>The demonstration of OB 6.2 is achieved when the trainee/candidate validates the precursors and confirms potential mitigation measures by seeking accurate and adequate information.</i>
OB 6.3	Identifies and verifies what and why things have gone wrong, if appropriate
<i>Explanation</i>	<p><i>The demonstration of OB 6.3 is achieved when the trainee/candidate validates the contributing factor(s).</i></p> <p><i>In SPO, the demonstration of OB 6.3 necessitates instructor interaction with the trainee/candidate or specific training policy mandating the trainee/candidate to validate the contributing factor(s).</i></p>
OB 6.4	Perseveres in working through problems whilst prioritizing safety
<i>Explanation</i>	<p><i>The demonstration of OB 6.4 is achieved when the trainee/candidate can elaborate solution(s) to the problems while carrying out essential activities to maintain appropriate safety margins.</i></p> <p><i>OB 6.4 should be distinguished from OB 8.2 Plans, prioritizes and schedules appropriate tasks effectively</i></p>
OB 6.5	Identifies and considers appropriate options
<i>Explanation</i>	<p><i>The demonstration of OB 6.5 is achieved when the trainee/candidate determines the risks and the benefits of the different options.</i></p> <p><i>In SPO, the demonstration of OB 6.5 necessitates instructor interaction with the trainee/candidate or specific training policy mandating the trainee/candidate to verbalize the different options.</i></p>
OB 6.6	Applies appropriate and timely decision-making techniques
<i>Explanation</i>	<i>In SPO, the demonstration of OB 6.6 necessitates instructor interaction with the trainee/candidate or specific training policy mandating the trainee/candidate to verbalize the decision-making technique.</i>

OB 6.7	Monitors, reviews and adapts decisions as required
<i>Explanation</i>	<i>In SPO, the demonstration of OB 6.7 necessitates instructor interaction with the trainee/candidate or specific training policy mandating the trainee/candidate to verbalize the review and the adaptation of the decisions.</i>
OB 6.8	Adapts when faced with situations where no guidance or procedure exists
<i>Explanation</i>	-
OB 6.9	Demonstrates resilience when encountering an unexpected event
<i>Explanation</i>	<i>Resilience refers to the ability of the flight crew member to recognize, absorb and adapt to disruptions.</i>

Situation awareness and management of information (SAW)	
Description:	Perceives, comprehends and manages information and anticipates its effect on the operation
OB 7.1	Monitors and assesses the state of the aeroplane and its systems
<i>Explanation</i>	<i>The demonstration of OB 7.1 is achieved when the trainee/candidate assesses the potential operational impacts of the state of the aeroplane and its systems. The demonstration of OB 7.1 is facilitated by the demonstration OB 1.5 (PRO) "Monitors aircraft systems status" that mandates the trainee/candidate to monitor the status of the aircraft systems in accordance with the normal and abnormal procedures.</i>
OB 7.2	Monitors and assesses the aeroplane's energy state, and its anticipated flight path
<i>Explanation</i>	<i>The demonstration of OB 7.2 is achieved when the trainee/candidate assesses the potential operational impacts of the aeroplane's energy state and the anticipated flight path. The demonstration of OB 7.2 is a prerequisite for the demonstration of most of the OBs belonging to the competencies FPA and FPM.</i>
OB 7.3	Monitors and assesses the general environment as it may affect the operation
<i>Explanation</i>	<i>The demonstration of OB 7.3 is achieved when the trainee/candidate assesses the potential operational impacts of the general environment.</i>

OB 7.4	Validates the accuracy of information and checks for gross errors
<i>Explanation</i>	-
OB 7.5	Maintains awareness of the people involved in or affected by the operation and their capacity to perform as expected
<i>Explanation</i>	<p><i>The demonstration of OB 7.5 may be achieved when the trainee/candidate performs the dispatch duties and/or performs the aero plane post-flight operations by ensuring that the operational personnel shares similar situational awareness (e.g., potential operational impacts, etc.).</i></p> <p><i>The demonstration of OB 7.5 is irrelevant when the aircraft first moves under its own power for the purpose of taking-off until the post flight operations.</i></p>
OB 7.6	Develops effective contingency plans based upon potential risks associated with threats and errors
<i>Explanation</i>	<p><i>The demonstration of OB 7.6 should be distinguished from the demonstration of OB 6.1 "Identifies, assesses and manages threats and errors in a timely manner" which relates to the real time threat and error management whereas OB 7.6 relates to their anticipation.</i></p> <p><i>The demonstration of OB 7.6 facilitates the demonstration of OB 6.1 by letting more cognitive resources for the trainee/candidate to identify and manage effectively real-time threats and errors.</i></p> <p><i>E.g., OB 7.6 may be demonstrated when the trainee/candidate identifies potential adequate enroute alternate aerodromes during the cruise phase.</i></p>
OB 7.7	Responds to indications of reduced situation awareness
<i>Explanation</i>	<i>The demonstration of OB 7.7 is achieved when the trainee/candidate responds to indications of his/her own reduction of situational awareness.</i>

Workload management (WLM)	
Description:	Maintains available workload capacity by prioritizing and distributing tasks using appropriate resources
<p>Note: In SPO, the demonstration of OB 8.4 and OB 8.5:</p> <ul style="list-style-type: none"> – may be achieved when the trainee/candidate interacts with operational personnel such as dispatch, maintenance, ground crew... – is not possible when the aircraft first moves under its own power for the purpose of taking-off until the post flight operations. 	
OB 8.1	Exercises self-control in all situations
<i>Explanation</i>	<i>The demonstration of OB 8.1 should always be achieved by the trainee/candidate carrying out activities or tasks under any conditions.</i>
OB 8.2	Plans, prioritizes and schedules appropriate tasks effectively
<i>Explanation</i>	<i>Note: The demonstration of OB 8.2 facilitates the demonstration of OB 1.2 (PRO) "Applies relevant operating instructions, procedures and techniques in a timely manner".</i>
OB 8.3	Manages time efficiently when carrying out tasks
<i>Explanation</i>	<p><i>The demonstration of OB 8.3 is achieved when the trainee/candidate carries out tasks in a timeframe sustaining the efficiency of the operations.</i></p> <p><i>The demonstration of OB 8.3 is facilitated by the demonstration of OB 1.2 (PRO) "Applies relevant operating instructions, procedures and techniques in a timely manner".</i></p> <p><i>The demonstration of OB 8.3 should always be achieved by the trainee/candidate carrying out tasks under any conditions.</i></p>
OB 8.4	Offers and gives assistance
<i>Explanation</i>	<p><i>The demonstration of OB 8.4 may be achieved when the trainee/candidate performs the dispatch duties and/or performs the aero plane post-flight operations by offering and giving assistance to the operational personnel encountering an over workload situation.</i></p> <p><i>The demonstration of OB 8.4 is irrelevant when the aircraft first moves under its own power for the purpose of taking-off until the post flight operations.</i></p>

OB 8.5	Delegates tasks
<i>Explanation</i>	<p><i>The demonstration of OB 8.5 may be achieved when the trainee/candidate performs the dispatch duties and/or performs the aero plane post-flight operations by delegating tasks to the operational personnel when encountering an over workload situation.</i></p> <p><i>The demonstration of OB 8.5 is irrelevant when the aircraft first moves under its own power for the purpose of taking-off until the post flight operations.</i></p>
OB 8.6	Seeks and accepts assistance, when appropriate
<i>Explanation</i>	<p><i>The demonstration of OB 8.6 may be achieved when the trainee/candidate performs the dispatch duties and/or performs the aero plane post-flight operations by seeking and accepting assistance from the operational personnel when encountering difficulties to carry out activities or tasks.</i></p> <p><i>The demonstration of OB 8.6 may also be achieved when the trainee/candidate request assistance from ATC (e.g., radar vectors)</i></p>
OB 8.7	Monitors, reviews and cross-checks actions conscientiously
<i>Explanation</i>	<p><i>The demonstration of OB 8.7 is achieved when the trainee/candidate can maintain sufficient resources for monitoring and cross-checking actions.</i></p> <p><i>The demonstration of OB 8.7 should always be achieved by the trainee/candidate carrying out activities or tasks under any conditions.</i></p> <p><i>The OB 8.7 should be distinguished from the OBs related to monitoring (OB 1.5, OB 3.2, OB 3.6, OB 4.2, OB 4.7, OB 6.7, OB 7.1, OB 7.2, OB 7.3).</i></p>
OB 8.8	Verifies that tasks are completed to the expected outcome
<i>Explanation</i>	<p><i>The demonstration of OB 8.8 should always be achieved by the trainee/candidate carrying out activities or tasks under any conditions.</i></p>
OB 8.9	Manages and recovers from interruptions, distractions, variations and failures effectively while performing tasks
<i>Explanation</i>	-

Appendix D: Assessment Guide - Multi-Crew Operations

Application of knowledge (KNO)	
Description:	Demonstrates knowledge and understanding of relevant information, operating instructions, aircraft systems and the operating environment
OB 0.1	Demonstrates practical and applicable knowledge of limitations and systems and their interaction
<i>Explanation</i>	<p><i>The knowledge referred to in OB 0.1 should be:</i></p> <ul style="list-style-type: none"> - covered in the appropriate parts of the Operations Manual, or - defined in the training objectives of the lesson plan.
OB 0.2	Demonstrates required knowledge of published operating instructions
<i>Explanation</i>	<p><i>The knowledge referred to in OB 0.2 should be:</i></p> <ul style="list-style-type: none"> - covered in the appropriate parts of the Operations Manual, or - defined in the training objectives of the lesson plan.
OB 0.3	Demonstrates knowledge of the physical environment, the air traffic environment including routings, weather, airports and the operational infrastructure
<i>Explanation</i>	<p><i>The knowledge referred to in OB 0.3 should be:</i></p> <ul style="list-style-type: none"> - covered in the appropriate parts of the Operations Manual, or - defined in the training objectives of the lesson plan.
OB 0.4	Demonstrates appropriate knowledge of applicable legislation.
<i>Explanation</i>	<p><i>The knowledge referred to in OB 0.4 should be defined in the training objectives of the lesson plan. (e.g., National Directives, European Basic Regulation...)</i></p> <p><i>The demonstration of OB 0.4 is specifically relevant to assess if the trainee/candidate has achieved the training objectives of the subject "Air Law" during the theoretical knowledge instruction.</i></p>

OB 0.5	Knows where to source required information
<i>Explanation</i>	<p><i>The demonstration of OB 0.5 generally requires an oral assessment by the instructor or evaluator.</i></p> <p><i>The demonstration of OB 0.5 should not be confused with the demonstration of OB 1.1 Identifies where to find procedures and regulations.</i></p> <p><i>The demonstration of OB 0.5 is achieved when the trainee/candidate demonstrate their knowledge to source an information other than procedures and regulations.</i></p> <p><i>The demonstration of OB 0.5 is specifically relevant to assess if the trainee/candidate has achieved the training objectives of the different subjects during the theoretical knowledge instruction.</i></p>
OB 0.6	Demonstrates a positive interest in acquiring knowledge
<i>Explanation</i>	<p><i>The OB 0.6 is achieved when the trainee/candidate proactively looks for the specific information that is necessary to carry out the activity or to achieve the training objective.</i></p> <p><i>E.g., The trainee demonstrates adherence to the trainee's booklet and/or training manual for the session preparation. The trainee demonstrates curiosity for additional information and receives positively instructor guidance for knowledge acquisition.</i></p>
OB 0.7	Is able to apply knowledge effectively
<i>Explanation</i>	<p><i>The demonstration of OB 0.7 relates to a level of performance regarding the competence "Application of Knowledge".</i></p> <p><i>The demonstration of OB 0.7 is specifically relevant to assess if the trainee/candidate has achieved the training objectives during the theoretical knowledge instruction.</i></p>

Application of procedures and compliance with regulations (PRO)	
Description:	Identifies and applies appropriate procedures in accordance with published operating instructions and applicable regulations
OB 1.1	Identifies where to find procedures and regulations
<i>Explanation</i>	<p><i>The procedures and regulations referred in OB 1.1 should be covered in the appropriate parts of the Operations Manual.</i></p> <p><i>The demonstration of OB1.1 is achieved when the trainee/candidate can find the normal procedures including non-routine procedures (e.g., supplementary procedures, ...), the</i></p>

	<p><i>abnormal procedures and the regulatory requirements within the above-mentioned manuals.</i></p> <p><i>The demonstration of OB 1.1 should not be confused with the demonstration of OB 0.5 Knows where to source required information, see explanation OB 0.5</i></p> <p><i>Note: The identification where to find the normal checklist are covered by OB.1.3.</i></p>
OB 1.2	Applies relevant operating instructions, procedures and techniques in a timely manner
Explanation	<p><i>The demonstration of OB1.2 complements the demonstration of OB 1.1 by ensuring the trainee/candidate applies the relevant operating instructions, procedures, and techniques in a timely manner.</i></p> <p><i>The demonstration of OB1.2 includes "in a timely manner" criteria to ensure effective application of the relevant operating instructions, procedures and techniques.</i></p> <p><i>The demonstration of OB1.2 is facilitated by the demonstration of the 8.2 Plans, prioritizes and schedules appropriate tasks effectively.</i></p> <p><i>The demonstration of OB1.2 facilitates the demonstration of OB 8.3 Manages time efficiently when carrying out tasks, see explanation OB 8.3</i></p> <p>Vocabulary</p> <p><i>Operating instructions describe how to operate aircraft systems and their related controls</i></p> <p><i>Procedures provide a series of actions conducted in a certain order or manner in order to operate the aircraft</i></p> <p><i>Techniques describe a way of carrying out a particular task or series of actions.</i></p>
OB 1.3	Follows SOPs unless a higher degree of safety dictates an appropriate deviation
Explanation	<p><i>The demonstration of OB 1.3 is achieved when:</i></p> <ul style="list-style-type: none"> - <i>Without safety issue, the trainee/candidate systematically follows SOPs including the completion of the required check lists,</i> <li style="text-align: center;"><i>or</i> - <i>With safety issues, the trainee/candidate may apply appropriate deviations from SOPs to avoid further reduction of safety margins.</i>

OB 1.4	Operates aircraft systems and associated equipment correctly
<i>Explanation</i>	<i>The demonstration of OB 1.4 includes the operation of the auto-flight system. Nevertheless, the stick inputs and rudder inputs should not be taken into account for the demonstration of this OB 1.4.</i>
OB 1.5	Monitors aircraft systems status
<i>Explanation</i>	<i>The demonstration of OB 1.5 is achieved when the trainee/candidate monitors the status of the aircraft systems in accordance with the normal and abnormal procedures. The demonstration of OB 1.5 includes the relevant flight mode annunciator display. E.g., the Approach capabilities information presented on the FMA display. The demonstration of OB 1.5 facilitates the demonstration of OB 7.1 (SAW) "Monitors and assesses the state of the aeroplane and its systems" that mandates the trainee/candidate to assess the potential operational impacts of the state of the aeroplane and its systems.</i>
OB 1.6	Complies with applicable regulations
<i>Explanation</i>	<i>The demonstration of OB 1.6 is achieved through the application of the appropriate parts of the Operations Manual.</i>
OB 1.7	Applies relevant procedural knowledge
<i>Explanation</i>	<i>The demonstration of OB 1.7 is achieved when the trainee/candidate integrates specific information (the "why" to do and the "how" to do) applicable to one or more specific procedure(s). E.g., Abnormal Procedure - Cargo Smoke: the flight crew should be aware that, even after successful operation of the cargo fire bottle, the CARGO SMOKE warning might persist.</i>

Communication (COM)	
Description:	Communicates through appropriate means in the operational environment, in both normal and non-normal situations
<p>Note: In Multi-Crew Operations and in the context of CAT, the demonstration of the competency communication observable behaviors may be achieved when the trainee/candidate communicates with:</p> <ul style="list-style-type: none"> - Pilot from same aircraft - ATC - Pilot from other aircraft - Cabin Crew - Operational personnel such as dispatch, maintenance, ground crew... 	
OB 2.1	Determines that the recipient is ready and able to receive information
<i>Explanation</i>	-
OB 2.2	Selects appropriately what, when, how and with whom to communicate
<i>Explanation</i>	-
OB 2.3	Conveys messages clearly, accurately and concisely
<i>Explanation</i>	-
OB 2.4	Confirms that the recipient demonstrates understanding of important information
<i>Explanation</i>	-
OB 2.5	Listens actively and demonstrates understanding when receiving information
<i>Explanation</i>	-
OB 2.6	Asks relevant and effective questions
<i>Explanation</i>	-

OB 2.7	Uses appropriate escalation in communication to resolve identified deviations
<i>Explanation</i>	-
OB 2.8	Uses and interprets non-verbal communication in a manner appropriate to the organizational and social culture
<i>Explanation</i>	-
OB 2.9	Adheres to standard radiotelephone phraseology and procedures
<i>Explanation</i>	<p><i>The demonstration of OB 2.9 is achieved when the trainee/candidate adheres to the standard radiotelephone phraseology and procedures described in ICAO Annex 10 and ICAO Doc 4444 PANS-ATM.</i></p> <p><i>The radiotelephone phraseology and procedures prescribe how to establish the communication, how to confirm the reception and the transmission of information, and how to clarify received instruction.</i></p>
OB 2.10	Accurately reads, interprets, constructs and responds to datalink messages in English
<i>Explanation</i>	-

Aeroplane flight path management — automation (FPA)

Description:	Controls the flight path through automation
<i>Explanation</i>	<i>The aeroplane flight path is controlled through automation as soon as the autopilot (AP) is engaged.</i>
OB 3.1	Uses appropriate flight management, guidance systems and automation, as installed and applicable to the conditions
<i>Explanation</i>	<i>The demonstration of OB 3.1 is achieved when the trainee/candidate uses appropriately the flight management (e.g., FMS, FMGS, FMC.), the guidance systems (i.e., FD ON or OFF, HUD ON or OFF) and the automation (i.e., AP ON and ATHR or A/T ON or OFF) according to the operational and environmental context.</i>

OB 3.2	Monitors and detects deviations from the intended flight path and takes appropriate action
<i>Explanation</i>	-
OB 3.3	Manages the flight path to achieve optimum operational performance
<i>Explanation</i>	<i>The demonstration of OB 3.3 is achieved when the trainee/candidate optimizes the lateral navigation and the vertical navigation by adopting appropriate speed and thrust.</i>
OB 3.4	Maintains the intended flight path during flight using automation whilst managing other tasks and distractions
<i>Explanation</i>	-
OB 3.5	Selects appropriate level and mode of automation in a timely manner considering phase of flight and workload
<i>Explanation</i>	<i>The demonstration of OB 3.5 is achieved when the trainee/candidate is able to select and to adapt the appropriate combination of automation in accordance with the phase of flight and/or the level of workload. E.g., operating an instrument approach in managed mode iso selected mode due to the level of workload.</i>
OB 3.6	Effectively monitors automation, including engagement and automatic mode transitions
<i>Explanation</i>	<i>The demonstration of OB 3.6 includes the monitoring of the flight mode annunciator display.</i>

Aeroplane flight path management — manual control (FPM)	
Description:	Controls the flight path through manual control
<i>Explanation</i>	<i>The aeroplane flight path is manually controlled as soon as the autopilot (AP) is disconnected.</i>
OB 4.1	Controls the aircraft manually with accuracy and smoothness as appropriate to the situation

<i>Explanation</i>	<p><i>The accuracy criteria may be defined by the reference to a regulatory flight path management tolerance and/or the appropriate part of Operations Manual.</i></p> <p><i>e.g.:</i></p> <ul style="list-style-type: none"> - <i>Starting a go-around at decision height/altitude at + 50 ft/- 0 ft</i> - <i>On radio aids at ±5°</i> - <i>Speed with all engines operating at ± 5 knots</i>
OB 4.2	Monitors and detects deviations from the intended flight path and takes appropriate action
<i>Explanation</i>	-
OB 4.3	Manually controls the aeroplane using the relationship between aeroplane attitude, speed and thrust, and navigation signals or visual information
<i>Explanation</i>	<p><i>The demonstration of OB 4.3 is achieved when the trainee/candidate manually controls the flight path in the following conditions:</i></p> <ul style="list-style-type: none"> - <i>autopilot is OFF, and</i> - <i>flight director is OFF, and</i> - <i>ATH/R or A/T is OFF.</i>
OB 4.4	Manages the flight path to achieve optimum operational performance
<i>Explanation</i>	<i>The demonstration of OB 4.4 is achieved when the trainee/candidate optimizes the lateral navigation and the vertical navigation by adopting appropriate speed and thrust.</i>
OB 4.5	Maintains the intended flight path during manual flight whilst managing other tasks and distractions
<i>Explanation</i>	-
OB 4.6	Uses appropriate flight management and guidance systems, as installed and applicable to the conditions
<i>Explanation</i>	<i>The demonstration of OB 4.6 is achieved when the trainee/candidate uses appropriately the flight management (e.g., FMS, FMGS, FMC.), the guidance systems (i.e., FD ON or OFF, HUD ON or OFF) and the ATHR or A/T (ON or OFF) according to the operational and environmental context.</i>

OB 4.7	Effectively monitors flight guidance systems including engagement and automatic mode transitions
<i>Explanation</i>	<i>The demonstration of OB 4.7 includes the monitoring of the flight mode annunciator display.</i>

Leadership and teamwork (LTW)	
Description:	Influences others to contribute to a shared purpose Collaborates to accomplish the goals of the team
Note: In Multi-Crew Operations and in the context of CAT, the demonstration of the competency leadership and teamwork observable behaviors may be achieved when the trainee/candidate interacts with the crew members (Pilot from same aircraft and/or Cabin Crew) and /or the operational personnel such as dispatch, maintenance, ground crew...	
OB 5.1	Encourages team participation and open communication
<i>Explanation</i>	<i>The demonstration of OB 5.1 is achieved when the trainee/candidate encourages collaboration within the crew members and other operational personnel to complete tasks and/or to manage operational and environmental threats.</i>
OB 5.2	Demonstrates initiative and provides direction when required
<i>Explanation</i>	<i>The demonstration of OB 5.2 is achieved when the trainee/candidate can act autonomously and can propose solutions proactively.</i>
OB 5.3	Engages others in planning
<i>Explanation</i>	<i>The demonstration of OB 5.3 is achieved when the trainee/candidate includes the crew members and other operational personnel in planning tasks completion and/or operational and environmental threats management.</i> <i>The OB 5.3 facilitates further demonstration of:</i> <ul style="list-style-type: none"> – <i>OB 8.2 Plans, prioritizes and schedules appropriate tasks effectively and</i> – <i>OB 7.6 Develops effective contingency plans based upon potential risks associated with threats and errors</i>

OB 5.4	Considers inputs from others
<i>Explanation</i>	<i>The demonstration of OB 5.4 is achieved when the trainee/candidate provides feedback to crew members or operational personnel inputs.</i>
OB 5.5	Gives and receives feedback constructively
<i>Explanation</i>	<i>The demonstration of OB 5.5 is achieved when the trainee/candidate giving or receiving the feedback maintains the team collaboration.</i>
OB 5.6	Addresses and resolves conflicts and disagreements in a constructive manner
<i>Explanation</i>	<i>The demonstration of OB 5.6 is achieved when the trainee/candidate is able to address conflicts and disagreements in a non-judgmental manner in order to maintains the team collaboration.</i>
OB 5.7	Exercises decisive leadership when required
<i>Explanation</i>	<i>The demonstration of OB 5.7 is achieved when the trainee/candidate is able to impose an adequate solution when time and/or safety are critical.</i>
OB 5.8	Accepts responsibility for decisions and actions
<i>Explanation</i>	<i>The demonstration of OB 5.8 is achieved when the trainee/candidate is able to bear their own accountabilities.</i>
OB 5.9	Carries out instructions when directed
<i>Explanation</i>	<i>The demonstration of OB 5.9 is achieved when the trainee/candidate carries out instructions directed by another crew member and/or operational personnel outside the scope of the application of procedures.</i> <i>E.g., the Captain (PM) requests latest wind report from the tower as directed by the First Officer (PF).</i>
OB 5.10	Applies effective intervention strategies to resolve identified deviations
<i>Explanation</i>	<i>The demonstration of OB 5.10 is achieved when the trainee/candidate is able to apply effective intervention strategy</i>
OB 5.11	Manages cultural and language challenges, as applicable
<i>Explanation</i>	-

Problem-solving — decision-making (PSD)	
Description:	Identifies precursors, mitigates problems, and makes decisions
<i>Explanation</i>	<i>The competency PSD should be distinguished from the competency SAW (Description: Perceives, comprehends, and manages information and anticipates its effect on the operation) as the demonstration of several Observable Behaviors belonging to the competency SAW facilitates further demonstration of Observable Behaviors belonging to the competency PSD.</i>
OB 6.1	Identifies, assesses and manages threats and errors in a timely manner
<i>Explanation</i>	<i>The demonstration of the OB 6.1 should be distinguished from the demonstration of OB 7.6 (SAW) “develops effective contingency plans based upon potential risks associated with threats and errors”.</i> <i>The development of contingency plans based on potential risk belongs to SAW as the need for an immediate decision is not necessary (e.g., identification of potential adequate enroute alternate aerodromes).</i> <i>The demonstration of OB 6.1 is facilitated by the demonstration of OB 7.6 by letting more cognitive resources for the trainee/candidate to effectively identify and manage real-time threats and errors.</i>
OB 6.2	Seeks accurate and adequate information from appropriate sources
<i>Explanation</i>	<i>The demonstration of OB 6.2 is achieved when the trainee/candidate validates the precursors and potential mitigation measures by seeking accurate and adequate information.</i>
OB 6.3	Identifies and verifies what and why things have gone wrong, if appropriate
<i>Explanation</i>	<i>The demonstration of OB 6.3 is achieved when the trainee/candidate validates the contributing factor(s).</i>
OB 6.4	Perseveres in working through problems whilst prioritizing safety
<i>Explanation</i>	<i>The demonstration of OB 6.4 is achieved when the trainee/candidate can elaborate solution(s) to the problems while carrying out essential activities to maintain appropriate safety margins.</i> <i>OB 6.4 should be distinguished from OB 8.2 Plans, prioritizes and schedules appropriate tasks effectively</i>

OB 6.5	Identifies and considers appropriate options
<i>Explanation</i>	<i>The demonstration of OB 6.5 is achieved when the trainee/candidate determines the risks and the benefits of the different options.</i>
OB 6.6	Applies appropriate and timely decision-making techniques
<i>Explanation</i>	-
OB 6.7	Monitors, reviews and adapts decisions as required
<i>Explanation</i>	-
OB 6.8	Adapts when faced with situations where no guidance or procedure exists
<i>Explanation</i>	-
OB 6.9	Demonstrates resilience when encountering an unexpected event
<i>Explanation</i>	<i>Resilience refers to the ability of the flight crew member to recognize, absorb and adapt to disruptions.</i>

Situation awareness and management of information (SAW)

Description:	Perceives, comprehends and manages information and anticipates its effect on the operation
OB 7.1	Monitors and assesses the state of the aeroplane and its systems
<i>Explanation</i>	<i>The demonstration of OB 7.1 is achieved when the trainee/candidate assesses the potential operational impacts of the state of the aeroplane and its systems. The demonstration of OB 7.1 is facilitated by the demonstration OB 1.5 (PRO) "Monitors aircraft systems status" that mandates the trainee/candidate to monitor the status of the aircraft systems in accordance with the normal and abnormal procedures.</i>

OB 7.2	Monitors and assesses the aeroplane's energy state, and its anticipated flight path
<i>Explanation</i>	<i>The demonstration of OB 7.2 is achieved when the trainee/candidate assesses the potential operational impacts of the aeroplane's energy state and the anticipated flight path. The demonstration of OB 7.2 is a prerequisite for the demonstration of most of OB belonging to the competencies FPA and FPM.</i>
OB 7.3	Monitors and assesses the general environment as it may affect the operation
<i>Explanation</i>	<i>The demonstration of OB 7.3 is achieved when the trainee/candidate assesses the potential operational impacts of the general environment.</i>
OB 7.4	Validates the accuracy of information and checks for gross errors
<i>Explanation</i>	-
OB 7.5	Maintains awareness of the people involved in or affected by the operation and their capacity to perform as expected
<i>Explanation</i>	<i>The demonstration of OB 7.5 is achieved when the trainee/candidate ensures, where necessary, that other crew members or operational personnel share similar situational awareness (e.g., potential operational impacts, etc.)</i>
OB 7.6	Develops effective contingency plans based upon potential risks associated with threats and errors
<i>Explanation</i>	<i>The OB 7.6 should be distinguished from the OB 6.1 "Identifies, assesses and manages threats and errors in a timely manner" which relates to the real time threat and error management whereas OB 7.6 relates to their anticipation. The demonstration of OB 7.6 facilitates the demonstration of OB 6.1 by letting more cognitive resources for the trainee/candidate to identify and manage effectively real-time threats and errors. E.g., OB 7.6 may be demonstrated when the trainee/candidate identifies potential adequate enroute alternate aerodromes during the cruise phase.</i>
OB 7.7	Responds to indications of reduced situation awareness
<i>Explanation</i>	<i>The demonstration of OB 7.7 is achieved when the trainee/candidate responds to indications of reduced situational awareness for himself or for other crew members or operational personnel.</i>

Workload management (WLM)	
Description:	Maintains available workload capacity by prioritizing and distributing tasks using appropriate resources
OB 8.1	Exercises self-control in all situations
<i>Explanation</i>	<i>The demonstration of OB 8.1 should always be achieved by the trainee/candidate carrying out activities or tasks under any conditions.</i>
OB 8.2	Plans, prioritizes and schedules appropriate tasks effectively
<i>Explanation</i>	<i>Note: The demonstration of OB 8.2 facilitates the demonstration of OB 1.2 (PRO) "Applies relevant operating instructions, procedures and techniques in a timely manner"</i>
OB 8.3	Manages time efficiently when carrying out tasks
<i>Explanation</i>	<i>The demonstration of OB 8.3 is achieved when the trainee/candidate carries out tasks in a timeframe sustaining the efficiency of the operations. The demonstration of OB 8.3 is facilitated by the demonstration of OB 1.2 (PRO) "Applies relevant operating instructions, procedures and techniques in a timely manner." The demonstration of OB 8.3 should always be achieved by the trainee/candidate carrying out tasks under any conditions.</i>
OB 8.4	Offers and gives assistance
<i>Explanation</i>	<i>The demonstration of OB 8.4 is achieved when the trainee/candidate proactively offers and gives assistance to other crew members or operational personnel encountering an over workload situation.</i>
OB 8.5	Delegates tasks
<i>Explanation</i>	<i>The demonstration of OB 8.5 is achieved when the trainee/candidate proactively delegates tasks when encountering an over workload situation.</i>
OB 8.6	Seeks and accepts assistance, when appropriate
<i>Explanation</i>	<i>The demonstration of OB 8.6 is achieved when the trainee/candidate seeks and accepts assistance when encountering difficulties to carry out activities or tasks.</i>

OB 8.7	Monitors, reviews and cross-checks actions conscientiously
<i>Explanation</i>	<p><i>The demonstration of OB 8.7 is achieved when the trainee/candidate can maintain sufficient resources for monitoring and cross-checking actions.</i></p> <p><i>The demonstration of OB 8.7 should always be achieved by the trainee/candidate carrying out activities or tasks under any conditions.</i></p> <p><i>The OB 8.7 should be distinguished from the OB related to monitoring (OB 1.5, OB 3.2, OB 3.6, OB 4.2, OB 4.7, OB 6.7, OB 7.1, OB 7.2, OB 7.3).</i></p>
OB 8.8	Verifies that tasks are completed to the expected outcome
<i>Explanation</i>	<i>The demonstration of OB 8.8 should always be achieved by the trainee/candidate carrying out activities or tasks under any conditions.</i>
OB 8.9	Manages and recovers from interruptions, distractions, variations and failures effectively while performing tasks
<i>Explanation</i>	-

Appendix E: Assessment Guide – Instructor/Evaluator

Note: The demonstration of all the following IOBs applies for the instruction/evaluation conducted in the relevant learning environment (classroom, simulator, in flight..).

Pilot Competencies	
Description:	See IATA CBTA Guide for Flight Crew Training
IEC1	Pilot Competencies
<i>Explanation</i>	<p><i>Refer to the following Appendices in this guide:</i></p> <ul style="list-style-type: none"> ▪ <i>Appendix C. Assessment Guide - Single Pilot Operations (SPO)</i> ▪ <i>Appendix D: Assessment Guide - Multi-Crew Operations</i>
Management of the learning environment	
Description:	Ensures that the instruction, assessment and evaluation are conducted in a suitable and safe environment.
IOB 2.1	Applies TEM in the context of instruction/evaluation
<i>Explanation</i>	<p><i>The demonstration of IOB 2.1 is achieved when the instructor/evaluator applies the TEM to manage:</i></p> <ul style="list-style-type: none"> – <i>the threats and errors encountered during operation (flight training in an aircraft), and</i> – <i>the specific threats and errors that could happen or result from the conduct of instruction/evaluation activities.</i>
IOB 2.2	Briefs on safety procedures for situations that are likely to develop during instruction/evaluation
<i>Explanation</i>	<p><i>The demonstration of IOB 2.2 is achieved when the instructor/evaluator ensures that the trainee(s) demonstrates the understanding of the safety procedures associated to the relevant learning environment.</i></p> <p><i>Example for classroom instruction/evaluation: safety procedure related to the facilities evacuation.</i></p> <p><i>Example for FSTD instruction/evaluation: safety procedure related to the emergency stops, emergency evacuation, etc.</i></p> <p><i>Example for aircraft instruction/evaluation: safety procedure related to the management of real malfunction in flight</i></p>

IOB 2.3	Intervenes appropriately, at the correct time and level (e.g., progresses from verbal assistance to taking over control)
<i>Explanation</i>	<i>The demonstration of IOB 2.3 is achieved when the instructor/evaluator intervenes in a timely manner and proportionally to the reduction of the safety margins that may be encountered during instruction/evaluation.</i>
IOB 2.4	Resumes instruction/evaluation as practicable after any intervention
<i>Explanation</i>	<p><i>The demonstration of IOB 2.4 is achieved when the instructor/evaluator:</i></p> <ul style="list-style-type: none"> <i>– ensures the safety margins are adequate to resume instruction/evaluation</i> <i>– informs the trainee(s) of the end of the intervention</i> <i>– ensures the trainee(s) understands when and where the instruction/evaluation restarts</i>
IOB 2.5	Plans and prepares training media, equipment and resources
<i>Explanation</i>	<i>The demonstration of IOB 2.5 is achieved when the instructor/evaluator proactively ensures that the training media, equipment and resources necessary to conduct the instruction/evaluation are available and functional.</i>
IOB 2.6	Briefs on training devices or aircraft limitations that may influence training, when applicable
<i>Explanation</i>	<p><i>The demonstration of IOB 2.6 is achieved when the instructor/evaluator ensures that the trainee(s) demonstrates understanding of the training devices or aircraft limitations.</i></p> <p><i>Example of training devices limitations: the FSTD training envelop does not permit to train all the UPRT requirements.</i></p> <p><i>Example of aircraft limitations: the aircraft does not have a transponder. The flight profile is limited to the adequate airspace categories.</i></p>
IOB 2.7	Creates and manages conditions (e.g., airspace, ATC, weather, time, etc.) to be suitable for the training objectives
<i>Explanation</i>	<p><i>Note. The conditions are:</i></p> <ul style="list-style-type: none"> <i>– The real time operational conditions when the instruction/evaluation is conducted during flight in an aircraft, or</i> <i>– The simulated operational and environmental conditions when the instruction/evaluation is conducted in a classroom or in an FSTD.</i>
IOB 2.8	Adapts to changes in the environment whilst minimizing training disruptions
<i>Explanation</i>	<i>Note. The change in the environments relates to:</i>

	<ul style="list-style-type: none"> – the change of the real time operational and environmental context when the instruction/evaluation is conducted during flight in an aircraft, or – the change of the simulated operational and environmental context when the instruction/evaluation is conducted in a classroom or in an FSTD
IOB 2.9	Manages time, training media and equipment to ensure that training objectives are met
<i>Explanation</i>	<p><i>The demonstration of IOB 2.9 is achieved when the instructor/evaluator ensures the achievement of the training objectives by keeping track on time and using effectively and efficiently the training media and equipment.</i></p> <p><i>Note: The demonstration of IOB 2.9 relating specifically to the effective usage of the training media and equipment should not be confused with IOB 2.5 “Plans and prepares training media, equipment and resources” relating to their availability and readiness for usage.</i></p>

Instruction	
Description:	Conducts training to develop the trainee’s competencies
IOB 3.1	References approved sources (operations, technical, and training manuals, standards and regulations)
<i>Explanation</i>	<p><i>The demonstration of IOB 3.1 is achieved when the instructor/evaluator exclusively references to approved sources and does not use opinion and/or unapproved documentation during instruction/evaluation.</i></p> <p><i>Note: The demonstration of IOB 3.1 is fundamental to:</i></p> <ul style="list-style-type: none"> – ensure the information provided to the trainee(s) is accurate and up to date – ensure a consistent training standardization – reinforce trainee(s) compliance and accountability
IOB 3.2	States clearly the objectives and clarifies roles for the training
<i>Explanation</i>	<p><i>Note 1: In a CBTA environment the objectives should be defined as a level of performance to be achieved for one or more competency under specific conditions.</i></p> <p><i>Note 2: “Clarifies roles for the training” means that the instructor/evaluator clarifies:</i></p> <ul style="list-style-type: none"> – the roles between the trainees (e.g., which trainee has the PF or PM role), and – the roles between the trainee and the instructor/evaluator including the expected level of support to be provided by the instructor/evaluator

IOB 3.3	Follows the approved training program
<i>Explanation</i>	<i>The demonstration of IOB 3.3 is achieved when the instructor/evaluator applies the guidance and the recommendations described in the lesson plan.</i>
IOB 3.4	Applies instructional methods as appropriate (e.g., explanation, demonstration, facilitation, discover with assistance, discover without assistance)
<i>Explanation</i>	<i>The demonstration of IOB 3.4 is achieved when the instructor/evaluator:</i> <ul style="list-style-type: none"> <i>– applies the instructional method indicated in the lesson plan, and/or</i> <i>– selects the appropriate instructional method to ensure the trainee(s) achieve the training objectives.</i>
IOB 3.5	Sustains operational relevance and realism
<i>Explanation</i>	<i>The demonstration of IOB 3.5 is achieved when the instructor/evaluator ensures the consistency of the nature and the complexity of the operational context described in the training objectives.</i>
IOB 3.6	Adapts the amount of instructor inputs to ensure that the training objectives are met
<i>Explanation</i>	<i>The demonstration of IOB 3.6 is achieved when the instructor/evaluator is able to adapt the amount of input depending on the trainee(s)' needs to meet the training objectives. IOB 3.6 should not be confused with IOB 3.4 Applies instructional methods as appropriate (e.g., explanation, demonstration, facilitation, discover with assistance, discover without assistance)</i>
IOB 3.7	Adapts to situations that might disrupt a planned sequence of events
<i>Explanation</i>	<i>The demonstration of IOB 3.7 is achieved when the instructor/evaluator proactively establishes mitigation measures to situations that might disrupt a planned sequence of events.</i> <i>E.g., the instructor/evaluator changes the order of the events contained in the lesson plan due to a potential equipment malfunction.</i>
IOB 3.8	Continuously assesses trainee's competencies
<i>Explanation</i>	<i>The demonstration of IOB 3.8 is achieved when the instructor/evaluator continuously assesses, during instruction, the trainees' progress toward the level of performance defined in the training objective.</i>

IOB 3.9	Encourages the trainee to self-assess
<i>Explanation</i>	<i>The demonstration of IOB 3.8 is achieved when the instructor/evaluator encourages the trainee(s) to self-assessment, identifying their strengths and weaknesses. Note: The self-assessment also permits the trainees to foster a sense of ownership over their learning process.</i>
IOB 3.10	Allows trainee to self-correct in a timely manner
<i>Explanation</i>	<i>The demonstration of IOB 3.10 is achieved when the instructor/evaluator allows sufficient time for the trainee to correct errors, as long as the safety margins are maintained. Note: The demonstration of IOB 2.3 Intervenes appropriately, at the correct time and level (e.g., progresses from verbal assistance to taking over control) is necessary as soon as there is a reduction of safety margin during instruction/evaluation.</i>
IOB 3.11	Applies trainee-centered feedback techniques (e.g., facilitation, etc.)
<i>Explanation</i>	<i>The demonstration of IOB 3.11 is achieved when the instructor/evaluator uses targeted and open questions to draw the trainee's focus on the relevant situations encountered during the instruction/evaluation. Note: The trainee-centered feedback techniques foster critical thinking and self-awareness.</i>
IOB 3.12	Provides positive reinforcement
<i>Explanation</i>	<i>The demonstration of OB 3.12 is achieved when the instructor/evaluator motivates the trainee by identifying strengths and weakness as learning opportunities.</i>

Interaction with the trainees	
Description:	Supports the trainees' learning and development, and Demonstrates exemplary behaviour (role model)
IOB 4.1	Shows respect for the trainees (e.g., for culture, language, experience, etc.)
<i>Explanation</i>	<i>The demonstration of OB 4.1 is achieved when the instructor/evaluator shows respect toward the trainee(s), acknowledging trainees' cultures, languages, and varied experience. By valuing these differences, the instructor creates a supportive, respectful environment conducive to learning.</i>
IOB 4.2	Shows patience and empathy (e.g., by actively listening, reading non-verbal messages and encouraging dialogue)

<i>Explanation</i>	<i>The demonstration of OB 4.2 is achieved when the instructor/evaluator listens attentively, observes non-verbal cues, and encourages open dialogue, creating a supportive and respectful learning environment. By demonstrating patience, the instructor fosters trust and assists trainees to feel comfortable asking questions and expressing themselves.</i>
IOB 4.3	Manages trainees' barriers to learning
<i>Explanation</i>	<p><i>Note: The most common trainees' barriers to learning are the following but not limited to:</i></p> <ul style="list-style-type: none"> <i>– Resistance to change</i> <i>– Language</i> <i>– Lack of motivation</i> <i>– Peer pressure</i> <i>– Fear of failure</i> <i>– Lack of focus</i> <i>– Course structure and scheduling...</i>
IOB 4.4	Encourages engagement and mutual support
<i>Explanation</i>	<i>The demonstration of IOB 4.4 is achieved when the instructor/evaluator motivates the trainees to commit individually and to adopt a collaborative attitude among trainees.</i>
IOB 4.5	Coaches the trainees
<i>Explanation</i>	<i>The demonstration of IOB 4.5 is achieved when the instructor/evaluator provides experience-based guidance to the trainees to achieve the training objectives.</i>
IOB 4.6	Supports the goal and training policies of the operator/ATO and Authority
<i>Explanation</i>	<p><i>The demonstration of IOB 4.6 is achieved when the instructor/evaluator:</i></p> <ul style="list-style-type: none"> <i>– consistently complies with the goal and training policies of the operator/ATO and Authority, and</i> <i>– provides the rationale for the goal and training policy of the operator/ATO and Authority, when necessary</i>
IOB 4.7	Shows integrity (e.g., honesty and professional principles)
<i>Explanation</i>	<i>The demonstration of OB 4.7 is achieved when the instructor/evaluator shows integrity by demonstrating honesty, adherence to professional standards creating a trustworthy environment whilst serving as a role model for ethical behaviour.</i>

IOB 4.8	Demonstrates acceptable personal conduct, acceptable social practices, content expertise, a model for professional and interpersonal behaviour
<i>Explanation</i>	<i>The demonstration of OB 4.8 is achieved when the instructor/evaluator maintains high standards in personal conduct, respectful interactions, and subject knowledge, serving as a model of professionalism and interpersonal behaviour.</i>
IOB 4.9	Actively seeks and accepts feedback to improve own performance
<i>Explanation</i>	<i>The demonstration of OB 4.9 is achieved when the instructor/evaluator proactively requests and thoughtfully considers feedback to enhance their instruction/evaluation.</i>

Assessment and Evaluation	
Description:	Assesses the competencies of the trainee, and Contributes to continuous training system improvement
IOB 5.1	Complies with Operator/ATOs and Authority requirements
<i>Explanation</i>	<i>The demonstration of IOB 5.1 is achieved when the instructor/evaluator applies systematically the organizational and Authority requirements regarding the assessment and evaluation.</i> <i>Note: The demonstration of IOB 5.1 should not be confused with IOB 4.6 Supports the goal and training policies of the operator/ATO and Authority.</i>
IOB 5.2	Ensures that the trainee understands the assessment process
<i>Explanation</i>	<i>The demonstration of OB 5.2 is achieved when the instructor/evaluator explains to the trainee(s) the assessment process and the performance criteria, invites questions, and ensures the trainees are aware of the required competency standards.</i>
IOB 5.3	Applies the competency standards and conditions
<i>Explanation</i>	<i>The demonstration of IOB 5.3 is achieved when the instructor/evaluator applies the competency standards and conditions defined in the relevant:</i> <ul style="list-style-type: none"> <i>– adapted competency model or</i> <i>– training objective of a specific training event</i>
IOB 5.4	Assesses trainee's competencies
<i>Explanation</i>	<i>The demonstration of IOB 5.4 is achieved when the instructor/evaluator applies the</i>

	<i>performance assessment process and competency assessment methodology described in Chapter 8, Performance Assessment, in this guidance material.</i>
IOB 5.5	Performs grading
<i>Explanation</i>	<i>The demonstration of IOB 5.5 is achieved when the instructor/evaluator relates the results of the assessment to a defined scale.</i>
IOB 5.6	Provides recommendations based on the outcome of the assessment
<i>Explanation</i>	<i>The demonstration of IOB 5.6 is achieved when the instructor/evaluator provides actionable recommendations to the trainees to further develop their competencies.</i>
IOB 5.7	Makes decisions based on the outcome of the summative assessment
<i>Explanation</i>	<i>The demonstration of IOB 5.7 is achieved when the instructor/evaluator determines:</i> <ul style="list-style-type: none"> <i>– whether or not the trainee/candidate is competent with respect to the level of performance and conditions defined in the adapted competency model</i> <i>– whether remedial or additional training is necessary</i>
IOB 5.8	Provides clear feedback to the trainee
<i>Explanation</i>	<i>Note: This feedback includes the level of performance achieved by the trainee during the instruction/evaluation and the potential remedial or additional training.</i>
IOB 5.9	Reports strengths and weaknesses of the training system (e.g., training environment, curriculum, assessment/evaluation) including feedback from trainees
<i>Explanation</i>	–
IOB 5.10	Suggests improvements for the training system
<i>Explanation</i>	<i>The demonstration of IOB 5.10 is achieved when the instructor/evaluator proactively proposes enhancements to the training system including the training environment, the training policy and procedures, the training materials, the instructional methods, and the evaluation processes, to address gaps and improve effectiveness.</i>
IOB 5.11	Produces reports using appropriate forms and media
<i>Explanation</i>	<i>The demonstration of IOB 5.11 is achieved when the instructor/evaluator produces reports using the forms and media mandated by the organization and/or the Authority.</i>