Table 2.1–Onboard Library Specifications
The following documents shall be included in the Onboard Library:
General Operating Information

(i) General operating information to include:
    (a) A copy of the air operator certificate (AOC);
    (b) A copy of the operations specifications relevant to the aircraft;
    (c) If applicable, a copy of the Article 83 bis agreement summary (including an English version);
    (d) The Operations Manual (OM).
    Note: *Refer to the IRM for the definitions of Article 83 bis, Article 83 bis Agreement and Article 83 bis Agreement Summary.*

Aircraft Operating Information

(ii) Applicable Aircraft Operating Manual (AOM) and, as a minimum:
    (a) Normal and Emergency Checklists for each operating flight crew member as required by the AFM;
    (b) Performance tables or access to performance calculations via telecom systems (e.g. ACARS) is acceptable, if completed with appropriate backup procedures;
    (c) Takeoff performance deviations (e.g. due to inoperative equipment or abnormal situations).

(iii) Minimum Equipment List (MEL) and Configuration Deviation List (CDL);
(iv) Aircraft-specific weight/mass and balance instructions/data (including load sheet).
Areas, Routes and Airport Information
(v) Flight Plans (OFP and ATS) for each flight;
(vi) The applicable departure, navigation and approach charts for use by each operating flight crew member as required by the AFM;

(vii) Route and airport instructions and information (flight crew member route guide) for each flight to include, as a minimum:
    (a) Departure airport;
    (b) Destination airport;
    (c) En route alternate airports;
    (d) Emergency airports.

(viii) If applicable, the escape routes used in case of decompression or engine failure in an area of high terrain.
Other Information
(ix) Cabin safety and emergency procedures relevant to the flight crew;
(x) Dangerous Goods manual or parts relevant to the flight crew, to include information and instructions on the carriage of dangerous goods and action to be taken in the event of an emergency;
(xi) Security Manual or parts relevant to the flight crew, including bomb search procedures;
(xii) Ground Handling Manual or parts relevant to the flight crew, if required for flight crew to accomplish assigned duties (recommendation only and only applicable to cargo aircraft operations).

Table 2.2–Operations Manual (OM) Content Specifications	
This table contains the fundamental OM content specifications required to achieve conformance with FLT 1.7.1 and FLT 2.1.10. The table also specifies Section 3 (DSP) provisions that must be addressed in the sections of the OM relevant to flight crew.	
Note: Specific flight crew policies, guidance, data and/or procedures that must also be addressed in the sections of the OM relevant to flight crew can be found in individual Section 2 provisions and are not duplicated in the table.	

General Information		DSP ISARP
(i)	General Information, to include:	None
	(a) Non-aircraft type related and/or standard operating procedures for each phase of flight, policies, procedures, checklists, descriptions, guidelines, emergency procedures and other relevant information;	None
	(b) Authorities, duties and responsibilities associated with the operational control of flights;	DSP 1.3.1, 1.3.4, 1.3.5, 1.3.6, 1.3.7
	(c) If applicable, guidance that identifies and defines the common flight documents used by the flight crew, the FOO, FOA and/or other personnel responsible for operational control.	DSP 3.2.2

Aircraft Operating Information		DSP ISARP
(ii)	Aircraft Operating Manual (AOM), to include:	None
	(a) Normal, abnormal/non-normal and emergency procedures, instructions, and checklists;	None
	(b) Aircraft systems descriptions, limitations and performance data.	None
(iii)	Minimum Equipment List (MEL) and Configuration Deviation List (CDL);	None
(iv)	Aircraft specific weight/mass and balance instructions/data (including load sheet);	DSP 3.3.3
(v)	Instructions for the computation of the quantities of fuel and oil (if required) to be carried.	DSP 4.3 (all)

Areas, Routes and Airport Information		DSP ISARP
(vi)	Route and airport instructions and information (departure, destination, en route and destination alternates, to include:	None
	(a) Airway manuals and charts, including information regarding communication facilities, navigation aids and minimum flight altitudes;	None
	(b) Airport charts, including the method for determining airport operating minima;	None
	(c) FMS databases;	None
	(d) Airport and runway analysis manual or documents;	None
	(e) If applicable, supplemental oxygen requirements;	None
	(f) If applicable, escape routes used in the event of a decompression or engine failure in an area of high terrain;	None
	(g) If applicable, procedures for loss of communication between the aircraft and the FOO;	DSP 3.6.1
	(h) Instructions for the selection, designation (on the OFP) and protection of departure, en route and destination alternate airports.	DSP 4.1 (all), 3.6.5B, 4.5.2, 4.5.3

Areas, Routes and Airport Information		DSP ISARP
	(i) Instructions to address departure if current meteorological reports and forecasts indicate that the destination airport or destination alternate will not be at or above operating minima;	DSP 3.2.9B

Table 2.2–Operations Manual (OM) Content Specifications			
	(j)	Instructions to address the continuation of a flight towards an airport of intended landing if the latest available information indicates a landing cannot be accomplished at that airport or at least one destination alternate;	DSP 3.2.9B, 3.6.5A
	(k)	If applicable, flight monitoring requirements and instructions to ensure the PIC notifies the operator of en route flight movement or deviations from the OFP;	DSP 3.6.2, 3.6.3
	(l)	If applicable, flight planning considerations that address the continuation of a flight after the failure of the critical engine on a two-engine aircraft and/or the second engine on a three or four engine aircraft;	DSP 4.2.2, 4.2.3
	(m)	The essential information concerning the search and rescue services in the area over which the aircraft will be flown.	None
	(n)	Information regarding RFFS capability available at airports of intended use.	None
Training Information			**DSP ISARP**
(vii)	Training Manual, to include:		None
	(a)	Details of all relevant training programs, policies, directives and requirements, including curricula and syllabi, as applicable, for basic operator familiarization, initial qualification, continuing qualification (including recency-of-experience), re-qualification, aircraft transition or conversion, upgrade to PIC and other specialized training requirements, as applicable;	None
	(b)	Curricula to include: ground training, simulator training, aircraft training, evaluation and certification, line flying under supervision, and any specialized training;	None
	(c)	Comprehensive syllabi to include lesson plans, procedures for training and the conduct of evaluations;	None
	(d)	The training program for the development of knowledge and skills related to human performance (Crew Resource Management/Dispatch Resource Management, CRM/DRM).	None
Other Information			**DSP ISARP**
(viii)	Cabin safety and emergency procedures relevant to the flight crew.		None
(ix)	Dangerous Goods manual or parts relevant to the flight crew, to include information and instructions on the carriage of dangerous goods and action to be taken in the event of an emergency.		None
(x)	Security Manual or parts relevant to the flight crew, including bomb search procedures.		None
(xi)	Ground Handling Manual or parts relevant to the flight crew, if required for flight crew to accomplish assigned duties (recommendation only and only applicable to cargo aircraft operations).		None

Table 2.3–Flight Crew Qualification Requirements
Fulfillment of the following flight crew certifications, qualifications, training and currency requirements shall be recorded and retained in accordance with FLT 1.8.2, and monitored and considered when assigning flight crew members to duty in accordance with FLT 3.4.1.

   (i)   Licenses/certification, including eligibility to exercise privileges of pilot license/certificate in international operations in accordance with FLT 3.3.5;

   (ii)   Specific pilot license/certification limitations (First Officer, relief pilot);

   (iii)   Specific qualifications (LVP, RVSM, ETOPS/EDTO);

   (iv)   Equipment qualifications (TCAS/ACAS, GPWS/EGPWS, HGS, HUD/EVS, PBN, PBCS);

   (v)   Recency-of-experience;

   (vi)   Medical status, including Medical Certificate;

   (vii)   Initial training and checking/line check/proficiency check/recurrent training and checking results;

   (viii)   Right seat qualification;

   (ix)   Type(s) qualification;

   (x)   Airport and route competence (including special airports);

   (xi)   Instructor/evaluator/line check airman qualification;

   (xii)   CRM/Human Factors training;

   (xiii)   Dangerous goods training;

   (xiv)   Security training;

   (xv)   Accrued flight time, duty time, duty periods and completed rest periods for the purposes of fatigue risk management and compliance with operator or State flight and/or duty time limitations.

Table 2.4–(Intentionally open)

Table 2.5–Route and Airport Knowledge Requirements

Each pilot crew member, in order to conform to the specifications of FLT 2.3.1, and/or the PIC, in order to conform to the specifications of FLT 2.4.1, shall have adequate knowledge of the following elements related to areas, routes or route segments, and airports to be used in operations:
 	
   (i)   Terrain and minimum safe altitudes;
 	
   (ii)   Seasonal meteorological conditions;
 	
   (iii)   Meteorological, communication and air traffic facilities, services and procedures;
 	
   (iv)   Search and rescue services for the areas over which the aircraft will be flown;
 	
   (v)   Navigational facilities and procedures, including any long-range navigation procedures associated with the route along which the flight is to take place;
 	
   (vi)   Procedures applicable to flight paths over heavily populated areas and areas of high air traffic density;
 	
   (vii)   Airport obstructions, physical layout, lighting, approach aids and arrival, departure, holding and instrument approach procedures and applicable operating minima.
 	
Note: That portion of an evaluation relating to arrival, departure, holding and instrument approach procedures may be accomplished in an appropriate training device that is adequate for this purpose.

Table 2.6–Elements Common to an Advanced Qualification Program (AQP), an Alternative Training and Qualification Program (ATQP) or an Evidence-based Training (EBT) Program

The following elements shall be included as part of an AQP, ATQP or EBT program as specified in FLT 2.1.1B.

  (i)   Training program and curricula approved or accepted by the State.

  (ii)   Training and evaluation which is conducted to the maximum extent possible in a full flight deck crew environment (e.g. Captain and First Officer). Qualification and continuing qualification curricula must include a line operational evaluation (LOE), which consists of a full flight scenario systematically designed to target specific technical and crew resource management (CRM) skills.

  (iii) Mandatory evaluation of CRM proficiency and substandard performance on CRM factors shall be corrected by additional training. A demonstration of proficiency in maneuver oriented technical skills is a necessary but insufficient condition for pilot qualification. For pass/fail purposes, pilots must also demonstrate proficiency in LOE's, which test both technical and CRM skills together.

  (iv) Specific training for instructors and evaluators, together with explicit training and evaluation strategies to verify the proficiency and standardization of such personnel for crew oriented, scenario-based training and evaluation tasks.

  (v)   Integrated use of advanced flight training equipment, including full flight simulators. Operators are encouraged to use a suite of equipment matched on the basis of analysis to the training requirements at any given stage of a curriculum.

  (vi) Curriculum elements that are:

      (a) Defined;

      (b) Crew member-specific or personnel-specific;

      (c) Aircraft-specific. (See Note 1)

    Note 1: Each curriculum must specify the make, model and series aircraft (or variant) and each crew member position or other positions to be covered by that curriculum. Positions to be covered by the program must include all flight crew member positions, instructors and evaluators and could include other positions, such as flight attendants, aircraft dispatchers and other operations personnel.

  (vii) Separate curricula for indoctrination, qualification and continuing qualification.

  (viii) CRM Training/Evaluation and Data Collection (feedback) to determine program effectiveness to include:

      (a) State-approved or -accepted Crew Resource Management (CRM) Training applicable to each position for which training is provided under the program;

      (b) State-approved or -accepted training on and evaluation of skills and proficiency of each person being trained under the program to use their crew resource management (CRM) skills and their technical (piloting or other) skills in an actual or simulated operations scenario. For flight crew members, this training and evaluation must be conducted in an approved flight training device or flight simulator;

      (c) Data collection procedures that will ensure the certificate holder provides information from its crew members, instructors and evaluators that will enable the State to determine whether the training and evaluations are working to accomplish the overall objectives of the curriculum;

      (d) Performance proficiency data collection on students, instructors, and evaluators and the conduct of airline internal analyses of such information for the purpose of curriculum refinement and validation.

  (ix) Defined airman certification and licensing requirements.

  (x)   Training devices and simulators used under the program evaluated against published standards and be approved or accepted by the State to ensure adequacy for training/qualification performed.

Table 2.6–Elements Common to an Advanced Qualification Program (AQP), an Alternative Training and Qualification Program (ATQP) or an Evidence-based Training (EBT) Program

(xi) Program approval to include:
 	
    (a) A demonstration to the Authority of how the program will provide an equivalent or superior level of safety for each curriculum item that differs from traditional training programs approved or accepted by the State.
 	
    (b) A demonstration to the Authority for every requirement that is replaced by the program curriculum, of how the new curriculum provides an equivalent or superior level of safety for each requirement that is replaced. Each traditional training program requirement that is not specifically addressed in the program curriculum continues to apply to the Operator.
 	
    (c) A requirement that training, qualification, or evaluation by a person who provides training by arrangement: "Training Centers" must be approved or accepted by the State.
 	
(xii) Records in sufficient detail to establish the training, qualification and certification of each person qualified under the program in accordance with the approved training, qualification and certification requirements.

Table 2.7–Requirements Specific to an Advanced Qualification Program (AQP) or an Alternative Training and Qualification Program (ATQP)

The specifications in this table apply to an AQP/ATQP as specified in FLT 2.1.1B and are in addition to those delineated in Table 2.6:

(i) **Proficiency Objectives**

The Operator shall conduct an aircraft-specific job task analysis beginning with the development of a comprehensive task listing for each duty position. The task listing covers the full range of conditions and contingencies - internal to the aircraft, external to the aircraft, normal, abnormal, and emergency - to which the pilot could be exposed within the Operator's sphere of operations. Proficiency objectives are then extracted from the task and subtask analysis, respectively, for each duty position, and include identification of applicable performance, standards, and conditions. The documentation of proficiency objectives also identifies the references used, respectively, in defining performance, standards, and conditions for each.

An operator may elect to categorize certain proficiency objectives as currency items. Currency items refer to flight activities on which proficiency is maintained by virtue of frequent exercise during routine operations. Such items do not need to be addressed for training or proficiency evaluation purposes in periodic training sessions. However, verification is required that proficiency on such items is being maintained. Such verification might be obtained during line checks.

An operator could also elect to categorize proficiency objectives, including currency items, as critical or non-critical, based on operational significance and the consequences of error. This categorization is employed to determine the time interval within which training and evaluation on such items must occur for continuing qualification curricula. Critical proficiency objectives are trained and evaluated during an evaluation period the initial duration of which cannot exceed thirteen months. Each such evaluation period includes at least one training session. Non-critical terminal proficiency objectives may be distributed over a continuing qualification cycle the initial duration of which cannot exceed twenty-six months.

(ii) **First Look Evaluations**

Performance on selected proficiency items will be evaluated prior to each formal training session and prior to any pre-briefing or practice. Such pre-evaluation data is used to determine the extent to which safety-critical skills might have decayed since previous training and/or checking, and provides a baseline for assessing degree of improvement attributable to subsequent training. Consistently poor pre-evaluation results occurring within the pilot group might indicate that curriculum modifications, including potentially the frequency and content of training, are warranted.

(iii) **Continuing Qualification Cycles and Evaluation Periods**

After initial qualification, which incorporates training and evaluation on all proficiency objectives, follow-on training will occur within a scheduling interval called a continuing qualification cycle. This is the time period during which all proficiency objectives are trained, validated, or evaluated for all crewmembers. The initial approval for a continuing qualification cycle is no more than 26 months in duration, divided into two 13-month evaluation periods. All critical proficiency objectives are accomplished during each evaluation period, and all currency proficiency objectives are accomplished during each continuing qualification cycle.

The initial duration of a continuing qualification cycle is 26 months, but it may be subsequently and incrementally extended by the Authority to a maximum of 39 months, contingent upon the results of performance proficiency data from each such cycle.

(iv) **Training Sessions**

Each evaluation period shall include a minimum of one training session but may include more. Initially, training sessions cannot be more than 13 months apart.

Table 2.7–Requirements Specific to an Advanced Qualification Program (AQP) or an Alternative Training and Qualification Program (ATQP)
(v)   **Proficiency Evaluations** For PICs, SICs, flight engineers, and other persons covered by an AQP/ATQP, a proficiency evaluation shall be completed during each evaluation period. Typically, the proficiency evaluation will occur during a required training session; however, if more than one training session is completed during an evaluation period, the proficiency evaluation may be divided among training sessions or otherwise allocated to one or more such sessions.

Table 2.8–Requirements Specific to an Evidence-based Training (EBT) Program

The specifications in this table apply to EBT as specified in FLT 2.1.1B and are in addition to those delineated in Table 2.6.

   (i)   **EBT Framework**

       The operator shall establish as a minimum:

         (a) A core competency framework using behavioral indicators approved or accepted by the authority;

         (b) The means to develop, train and assess competencies using scenarios that are relevant to the operator's environment;

         (c) A malfunction clustering system.

   (ii) **Baseline EBT**

       The operator shall ensure the following requirements, as a minimum, are met prior to the implementation of EBT:

         (a) A set of core competencies is developed;

         (b) A competency-based assessment and grading system is developed;

         (c) Instructors are trained to ensure a standardized approach to EBT. Such instructor training programs also ensure each instructor's capability to conduct the training and assessment of the core competencies;

         (d) Flight crew members are provided with background knowledge of EBT principles, methodology and the set of competencies;

         (e) A system to measure the effectiveness of EBT is developed;

         (f) Training scenarios are developed as provided in the IATA Data Report for Evidence-based Training or as required by the State.

  (iii) **Additional Program Requirements (applicable to any EBT)**

       An EBT program shall be approved or accepted by the Authority and include as a minimum:

         (a) The definition of an implementation and operations plan;

         (b) Programs as defined in ICAO Doc 9995, Appendices 2 to 7 to Part II, and as required by the types of operations of the Operator;

         (c) Implementation with a limited trial phase;

         (d) The review of training effectiveness upon receipt of sufficient training system data;

         (e) Adjustment and continuous improvement of the training program according to the training system feedback;

         (f) A risk assessment of any implementation and/or proof of concept trial in accordance with SMS principles.

  (iv) **Enhanced EBT Requirements**

       The difference between the baseline EBT and an enhanced EBT is optimization that, as a minimum, is based on the following activities:

         (a) Collection and analysis of operations data;

         (b) Collection and analysis of training data;

         (c) Integration of analysis;

         (d) Program development;

         (e) Risk assessment of enhanced EBT implementation and/or proof-of-concept trial in accordance with SMS principles.

Table 2.8–Requirements Specific to an Evidence-based Training (EBT) Program

(v)   **Enhanced EBT Scenarios**
 	
Enhanced EBT scenarios shall be based on one or more of the following:
 	
    (a) IATA Data Report for evidence-based training;
    (b) Flight Data Analysis (FDA) program;
    (c) Safety reporting system;
    (d) Flight deck observation program;
    (e) Training data;
    (f) The Operator's specific operational challenges that relate to route network, airports used, weather, etc.;
    (g) World fleet data with an analysis of available safety data from operations with similar aircraft types and similar operations (e.g. OEM/OSD data).
 	
(vi) **Continuing Qualification Cycles and Evaluation Periods**
 	
After initial qualification, which incorporates training and evaluation on all proficiency objectives, follow-on training will occur within a scheduling interval called a continuing qualification cycle. This is the time period during which all proficiency objectives are trained, validated, or evaluated for all flight crewmembers. The initial approval is for a continuing qualification cycle that is no more than 26 months in duration and is divided into two 13-month evaluation periods. All critical proficiency objectives are accomplished during each evaluation period, and all currency proficiency objectives are accomplished during each continuing qualification cycle.
 	
The initial duration of a continuing qualification cycle is 26 months but it may be subsequently and incrementally extended by the Authority to a maximum of 39 months, contingent upon the results of performance proficiency data from each such cycle.
 	
(vii) **Training Sessions**
 	
Each evaluation period shall include a minimum of one training session but may include more. Initially, training sessions cannot be more than 13 months apart.
 	
(viii) **Proficiency Evaluations**
 	
For PICs, SICs, flight engineers, and other persons covered by EBT, a proficiency evaluation shall be completed during each evaluation period. Typically, the proficiency evaluation will occur during a required training session. However, if more than one training session is completed during an evaluation period, the proficiency evaluation may be divided among training sessions or otherwise allocated to one or more such sessions.

Note: The requirements specified in this table are applicable to an operator that is currently authorized for AQP/ATQP and is transitioning to EBT. For an operator that is initially implementing EBT, and is not currently authorized for AQP/ATQP, requirements as specified in items vi), vii) and viii) might vary in accordance with requirements of the State.