**Patikros lapas ETOPS leidimui**

*Checklist for Extended Range Twin-engine operations (ETOPS) approval*

|  |  |
| --- | --- |
| **Oro vežėjas***Operator* |  |
| **SVV leidimo ir revizijos nr.***OM-A issue and revision no.* |  |
| **SVV revizijos data** *OM-A revision date* |  |
| **Oro vežėjo kontaktinis asmuo dėl klausimų susijusių su ETOPS leidimo patvirtinimo (vardas, pavardė, el. paštas, telefonas)***Operator`s contact person regarding questions associated with ETOPS approval (name, surname, email, telephone)* |  |

|  |
| --- |
| **Papildomi užrašai/komentarai***Additional notes/comments***:** |

|  |
| --- |
| **Lėktuvo / variklio kombinacija (tipas, MSN) kiekvienam lėktuvui***Airplane-engine combination (type, MSN) for each aircraft***:** |

**Vežėjo deklaracija**

Mes, žemiau pasirašę, patvirtiname, kad įmonė vykdo TKA išduotame vežėjo pažymėjime nurodytą veiklą ir parengė skrydžių vykdymo vadovą (toliau SVV) laikantis visų jai taikomų Reglamento (EU) Nr. 2018/1139 IV priedo, Reglamento 965/2012 I, III, IV ir V priedų bei EASA paskelbtų priimtinų atitikties užtikrinimo priemonių (AMC) ir aiškinamosios medžiagos (GM) su visais paskutiniais jų pakeitimais reikalavimų.

**Operator’s Compliance Statement**

I, the undersigned, declare that the intended Revision/Amendment – as submitted to TCA – has been established in accordance with all applicable regulations and the relevant acceptable means of compliance (AMC) and guidance material (GM).

Before submitting the Revision, its content has been thoroughly evaluated internally for compliance with applicable regulations by our internal quality assurance processes as defined in OM A, Chapter 3. We ensure further that the submitted Revision/Amendment complies with the scope of the AOC.

**Oro vežėjo autorizuoto asmens (arba Atsakingo vadovo)**

*Authorised person (or The Accountable Manager)*

Vardas, Pavardė:

*Name, surname*:  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parašas:

*Signature*: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**NA = Not Applicable; C = Compliant; NC = Not Compliant; N/R = Not Reviewed**

**\*Stulpelį pildo vežėjas.**

*\*Filled by the operator*

**\*\*Pildo TKA.**

*\*\*Filled by TCA*

| **No.** | **Reference** | **Requirement** | **Specific requirements/expectations** | **OM reference\*** | **TCA Eval\*\*** | **Remarks/ Inspector code\*\*** |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Application content** |
|  | **SPA.ETOPS.105** | Content of the ETOPS application:* Proposed routes/areas and requested ETOPS diversion time;
* ETOPS OEI cruise speed;
* ETOPS airworthiness certification of the related aircraft type;
* ETOPS training programmes (flight crew, cabin crew, flight dispatchers, continuing airworthiness personnel), including plan to have the relevant personnel trained before the start of the ETOPS operations;
* Description of the organisation put in place to support the ETOPS operations;
* ETOPS operating procedures (OM related parts);
* Description of the operator’s related experience (if applicable);
* Description of ETOPS continuing airworthiness elements (amendment of CAME or separate ETOPS manual).
 | - Check that the application contains all the required elements. |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **ORO.GEN.200(a)(3)****AMC1 ORO.GEN.200(a)(3)** | Management of changes / safety risk management | - Check that the hazard identification process of the operator captured the risks associated with the new type of operations (ETOPS)..- Check the adequate subsequent risk analysis and definition of mitigations.- Check that this was completed in the frame of the operator’s management of change process. |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **Aircraft eligibility** |
|  | **SPA.ETOPS.105****AMC 20-6, Chapter 2** | ETOPS type design (airworthiness) approval | - Check that the related aircraft hold an ETOPS type design airworthiness approval with a maximum diversion time above the operator’s requested ETOPS diversion time. |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **AMC2 CAT.IDE.A.345** | Communications capability | - The related aeroplane(s) should have a communication means capable of communicating with an appropriate ground station at normal and planned contingency altitudes. - For ETOPS routes where voice communication facilities are available, voice communications should be provided. - For all ETOPS operations beyond 180 minutes, reliable communication technology, either voice-based or data link, should be installed. Where voice communication facilities are not available and where voice communication is not possible or is of poor quality, communications using alternative systems should be ensured. |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **Request for a diversion time exceeding the aircraft maximum approved diversion time** |
|  | **SPA.ETOPS.105****AMC20-6, chapter III, para 7.2** | Request for a diversion time exceeding the aircraft maximum approved diversion time, for specific routes. | Note: such request is possible for aircraft with a maximum approved diversion time of 120 mn or 180 mn and for specific routes listed in the application.- Check that the requested operator’s approved diversion time does not exceed either:* 115% of the aircraft maximum approved diversion time; or,
* the time-limited system capability minus 15 minutes.

- Check that:* the aeroplane fuel carriage supports the requested operator’s approved diversion time;
* the resulting routing will not reduce the overall safety of the operation;
* The MEL reflect reflects this increased diversion time.
 |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **Operational considerations** |
|  | **AMC20-6, Chap III, 7.1 and appendix 4 para 2****ORO.MLR.105(d)(3)** | MEL | - Check that the operator has amended its MEL to include all ETOPS related limitations and required equipment.- Non-exhaustive list of systems having an influence:* electrical;
* hydraulic;
* pneumatic;
* flight instrumentation, including warning and caution systems;
* fuel;
* flight control;
* ice protection;
* engine start and ignition;
* propulsion system instruments;
* navigation and communications, including any route specific long range navigation and communication equipment;
* auxiliary power-unit;
* air conditioning and pressurisation;
* cargo fire suppression;
* engine fire protection;
* emergency equipment;
* systems and equipment required for engine condition monitoring.

- In the case of 90 mn diversion time, MEL restrictions for 120 minutes ETOPS should be used unless there are specific restrictions for 90 minutes or less.- For diversion time above 180 mn, the following equipment should be operative:* Fuel quantity indicating system (FQIS);
* APU;
* Automatic engine or propeller control system;
* Communication system(s) relied on by the flight crew.
 |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **CAT.OP.MPA.140(b)** | OEI speed | - Check the basis used by the operator for the determination of the OEI speed.- Check that the selected OEI is adequate to the type of operations, route and area of operations. |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **CAT.OP.MPA.180****SPA.ETOPS.105****AMC20-6 Appendix 4 para 4** | Fuel scheme for ETOPS flights | - Check that the operator’s fuel scheme includes the specific considerations for ETOPS:- Calculation of the critical fuel reserve based on the critical fuel scenario:* Flight to an ERA taking into account the forecast wind/weather and considering the greatest amount of fuel for the 3 following scenarios:
* A rapid decompression at the most critical point followed by a descent to a 10.000 ft or higher altitude (if oxygen is provided);
* A rapid decompression and an engine failure at the most critical point followed by a descent to a 10.000 ft or higher altitude (if oxygen is provided) and a cruise at the approved OEI cruise altitude and speed;
* An engine failure at the most critical point followed by a descent to the OEI cruise altitude and a cruise at the OEI approved speed.
* 15 mn holding at 1500 ft, one instrument approach and landing.
* 5% increment (to headwind)/decrement (to tailwind) to the forecast wind (based on an acceptable wind model);
* Correction for icing:
* Effect of airframe icing during 10% of the time during which icing is forecast;
* Fuel for anti-ice and if appropriate wing anti-icing for the entire time during which icing is forecast.
* 5% increment if the operator does not have a programme to monitor the deterioration of fuel burn performance.

- If the operator uses a specific software or OFP provider, check that the use of the system is described. |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **AMC20-6 Appendix 4, para 10****AMC3 ORO.MLR.100****SPA.ETOPS.105** | Aeroplane performance data | - Check that the OM-B 4.1 and 4.2 contain enough information to support the critical fuel reserve calculation. The data should be based on the information provided by the (S)TC holder.- Check that it contains the following OEI data (ISA and non-ISA and as function of airspeed and power setting where appropriate):* Drift down (net performance)
* Cruise altitude coverage, including 10.000 ft
* Holding
* Altitude capability (net performance)
* Missed approach

- Check that it includes any additional required data such as (where applicable):* Ice accumulation on unprotected surfaces
* RAT deployment
* Thrust reverser deployment, …
 |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **AMC20-6 Appendix 4 para 11****CAT.OP.MPA.175****AMC1 CAT.OP.MPA.175(a)****AMC3 ORO.MLR.100** | Operational flight plan (OFP) | - Check that the operator’s OFP allows the presentation of the ETOPS related data (e.g. diversion time, ETOPS ERA, critical fuel reserve based on 3 scenarios, ETP, …)- Check that the use of OFP for ETOPS flights is described in the operator’s OM. |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **Alternate aerodrome** |
|  | **SPA.ETOPS.110****SPA.ETOPS.115****CAT. OP.MPA.182** | En-route alternate aerodromes selection | - Check that the operator has described the criteria to be used to consider an ETOPS ERA as adequate in addition to the standard criteria for all alternate aerodromes):* ATS
* Sufficient lighting
* Communications
* Weather reporting
* Navigation aids
* Emergency services (e.g. RFFS)
* At least one instrument approach procedure.

- Check that the operator has established planning minima (earliest ETA/ETA+1 h) for the selection of ETOPS ERA, in accordance with the following:* Type B instrument approach (DA/H +200ft, RVR/VIS +800m)
* Type A instrument approach (DA/H or MDA/H +400 ft, RVR/VIS +1500m)
* Circling approach (MDA/H +400ft, RVR/VIS +1500m)

Note: Not normally applicable to CAT II/CAT III. Demonstration to be conducted to use CAT II/CAT III minima.- Check that the forecast crosswind plus any gust is considered (considering the runway condition) and compared to operating limitations.Note: refer to the related guidance in GM2 CAT.OP.MPA.185.- Check that the operator’s policy for the selection of take-off alternate selected foresees a distance from departure aerodrome of no more than the operator’s ETOPS diversion time, with a max of 2 hours.- Check that for the envisaged routes, the operator has established the list of ETOPS ERA available, including all the relevant characteristics. |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **Operating procedures** |
|  | **AMC20-6, Appendix 4, para 4, 7.2.3****SPA.ETOPS.105****AMC3 ORO.MLR.100****CAT.OP.MPA.175****CAT.OP.MPA.260** | Flight planning / Pre-flight procedures | - Check that the operator has established pre-flight and dispatch procedures, including the following:* Airframe approved for ETOPS operations;
* MEL items pertaining to ETOPS;
* Forecast weather on the route/destination/ERA;

Check that the operator only uses weather information systems that are sufficient reliable and accurate in the proposed area of operation;* Selection of ETOPS ERA;
* Visual and non-visual aids should be available at the specified alternates for the anticipated types of approaches and operating minima;
* In addition to the nominated ETOPS ERAs, the operator should provide FC with information on adequate aerodromes on the route to be flown which are not forecast to meet the ETOPS ERA weather minima.
* Calculation of fuel critical reserve;

Fuel and oil carriage should meet the applicable operational requirements.* Calculation of ETPs;

The effects of wind and temperature at the OEI cruise altitude should be accounted for in the calculation of ETPs.* Preparation of the OFP (including the above information);
* ATS flight plan (with ETOPS ERA included)
 |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | - For diversion times exceeding 180 mn, check that:* The operator’s policy is to minimise diversion time along the preferred track. Increases in diversion time by disregarding ETOPS adequate aerodromes along the route, should only be planned in the interest of the overall safety of the operation
* The operator is ensuring at flight planning stage that diversion to an ETOPS en-route alternate aerodrome will not exceed the:
* Engine-related time-limited systems capability minus 15 minutes at the approved one-engine-inoperative cruise speed; and
* Non engine-related time-limited system capability minus 15 minutes, such as cargo fire suppression, or other non engine-related system capability at the all engine operative cruise speed.
 |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **AMC20-6 Appendix 4 para 7****SPA.ETOPS.105****AMC3 ORO.MLR.100** | Delayed dispatch | - Check that the operator has established a procedure to address the specific case of delayed dispatch, including the monitoring of weather forecast and airport status at the ERA, in particular when the delay is of at least 1 hour. |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **AMC20-6 Appendix 4 para 7****SPA.ETOPS.105****AMC3 ORO.MLR.100** | In-flight replanning/post-dispatch | - Check that the operator has established a procedure to address in-flight replanning of ETOPS flights.- In particular, it should address:* Monitoring of ETOPS ERA before ETOPS entry point
* Communication of updated information to FC
 |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **AMC20-6 Appendix 4 para 7****SPA.ETOPS.105****AMC3 ORO.MLR.100** | In-flight monitoring | - Check that the operator has set-up a system to monitor ETOPS flights and has described it in a procedure.- Check that it allows an adequate monitoring of ETOPS ERAs and the communication of the updated status to the FC before ETOPS entry points and in case of any significant change. |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **AMC20-6 Appendix 4 para 8 and 9****SPA.ETOPS.105****AMC3 ORO.MLR.100** | Flight crew procedures, including diversion decision-making process | - Check that the operator has included in its OM all relevant information for the flight crew, including but not limited to:* OEI speed
* ETOPS specific limitations
* Identification of ETOPS aeroplanes
* Scope of the ETOPS approval
* ETOPS areas and routes
* ERA list and characteristics

- Check that the procedures include:an evaluation prior to the ETOPS entry point of the forecast weather, established aeroplane status, fuel remaining, and where possible field conditions and aerodrome services and facilities at designated ETOPS ERAs.The implementation of appropriate actions (e.g. re-routing, ERA change) if any conditions are identified which could preclude safe approach and landing on a designated ERA.- Check that the operator has established FC procedures for ETOPS flights, including diversion decision-making process. The diversion decision-making process should include the consideration of the following criteria:* Aircraft configuration/weight/systems status;
* Wind and weather conditions en-route at the diversion altitude;
* Minimum altitudes en-route to the diversion aerodrome;
* Fuel required for the diversion;
* Aerodrome condition, terrain, weather and wind;
* Runways available and runway surface condition;
* Approach aids and lighting;
* RFFS capability at the diversion aerodrome;

For an ERA, an RFFS equivalent to ICAO cat 4, available at 30 mn notice is acceptable;* Facilities for aircraft occupants - disembarkation & shelter;
* Medical facilities;
* Pilot’s familiarity with the aerodrome;
* Information about the aerodrome available to the flight crew.
 |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **AMC20-6 Chapter 3, para 7.2.3****SPA.ETOPS.105****AMC3 ORO.MLR.100** | Communication equipment (VHF/HF, Data Link and Satellite based communications) | - Check that operators’ policy is to use any or all of these forms of communications to ensure communications capability when operating ETOPS in excess of 180 minutes. |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **Training** |
|  | **Flight crew** |
|  | **AMC20-6 Appendix 6****SPA.ETOPS.105****AMC1 ORO.FC.220** | Flight crew training | - Check that the operator has defined the minimum FC qualification to conduct ETOPS flights.- Check that a training programme for FC has been established, including initial and recurrent training and addressing the following:* Introduction to ETOPS operations
* Brief overview of the history of ETOPS;
* ETOPS regulations;
* Definitions;
* Approved One-Engine-Inoperative Cruise Speed;
* ETOPS Type Design Approval – a brief synopsis;
* Maximum approved diversion times and time-limited systems capability;
* Operator’s Approved Diversion Time;
* Routes and aerodromes intended to be used in the ETOPS area of operations;
* ETOPS Operations Approval;
* ETOPS Area and Routes;
* ETOPS en-route alternates aerodromes including all available let-down aids;
* Navigation systems accuracy, limitations and operating procedures;
* Meteorological facilities and availability of information;
* In-flight monitoring procedures;
* Computerised Flight Plan;
* Orientation charts, including low level planning charts and flight progress charts usage (including position plotting);
* Equal Time Point;
* Critical fuel.
* Normal operations
* Flight planning and Dispatch
* ETOPS Fuel requirements
* Route Alternate selection - weather minima
* Minimum Equipment List – ETOPS specific
* ETOPS service check and Tech log
* Pre-flight FMS Set up
* Flight performance progress monitoring
* Flight management, navigation and communication systems
* Aeroplane system monitoring
* Weather monitoring
* In-flight fuel management – to include independent cross checking of fuel quantity
* Abnormal and contingency procedures
* Diversion Procedures and Diversion ‘decision making’.
* Navigation and communication systems, including appropriate flight management devices in degraded modes.
* Fuel Management with degraded systems
* Abnormal and emergency procedures to be followed in the event of foreseeable failures for each area of operation:
* Procedures for single and multiple failures in flight affecting ETOPS sector entry and diversion decisions.

Note: If standby sources of electrical power significantly degrade the cockpit instrumentation to the pilots, then training for approaches with the standby generator as the sole power source should be conducted during initial and recurrent training.* Operational restrictions associated with these system failures including any applicable MEL considerations
* Conversion course: check that ETOPS is covered in the flight training part of the conversion course.
* LIFUS.

Minimum 2 sectors, including a line check.* The annual refresher should include ETOPS subjects.
 |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **Cabin crew** |
|  | **AMC1 ORO.CC.200(c)****ORO.GEN.110(e)** | Cabin crew training | - Check that the senior cabin crew training includes ETOPS operations (pre-flight briefing). |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **Flight operations personnel other than crew** |
|  | **AMC20-6 Appendix 6****SPA.ETOPS.105****ORO.GEN.110(e)** | Flight dispatcher training | - Check that a training programme has been established for flight dispatchers, addressing the following:* ETOPS Regulations/Operations Approval
* Aeroplane performance/Diversion procedures
* Area of Operation
* Fuel Requirements
* Dispatch Considerations MEL, CDL, weather minima, and alternate airports
* Documentation

- The training should also address the operator ‘s specific procedures for ETOPS.- A familiarisation flight on an ETOPS flight is recommended for flight dispatcher once a year. |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **Maintenance programme and reliability programme** |
| **||** | **Maintenance programme**  |
|  | **SPA.ETOPS.105****AMC20-6 Appendix 8 para 3.1****M.A.302** | Maintenance programme | - Check that the specific ETOPS maintenance tasks and related intervals identified by the (S)TC holder in the Configuration, Maintenance and Procedures document (CMP) or equivalent are included in the maintenance programme and identified as ETOPS tasks (an ETOPS maintenance task could be an ETOPS specific task or/and a maintenance task affecting an ETOPS significant system. An ETOPS specific task could be either an existing task with a different interval for ETOPS, a task unique to ETOPS operations, or a task mandated by the CMP further to the in-service experience review (note that in the case ETOPS is considered as the baseline in the development of a maintenance program, no ‘ETOPS specific’ task may be identified in the MRB).- Check that the maintenance programme includes tasks to maintain the integrity of cargo compartment and pressurisation features, including baggage hold liners, door seals and drain valve condition. Processes should be defined to monitor the effectiveness of the maintenance programme in this regard. |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **M.A.301(f)** | Operational directive with a continuing airworthiness impact | - Check that the operator has a system to identify and implement operational directives with a continuing airworthiness impact for ETOPS. |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **SPA.ETOPS.105****AMC20-6 Appendix 8 para 3.1.1****M.A.302** | Pre-departure service check | - Check that a pre-departure service check has been defined. The aim of this check is to verify the status of the aeroplane and the ETOPS significant systems.- Check the personnel accomplishing such check are adequately trained and authorised.  |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **SPA.ETOPS.105****AMC20-6 Appendix 8 para 4****M.A.302****ICAO doc. 10085, para 4.6** | ETOPS significant systems | - Check that the operator has established a list of ETOPS significant systems for each aircraft / fleet of a given aircraft type that will be operated on ETOPS |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
| 1. **5**
 | **SPA.ETOPS.105****AMC20-6 Appendix 8 para 4****M.A.302****ICAO doc. 10085, para 4.8** | Parts and configuration control  |  - Check that the operator has established / developed a ETOPS parts list in order to identify and to manage ETOPS components. The ETOPS list should reflect the configuration requirements of the ETOPS CMP document- Check that the description of parts and configuration control programme is included in the CAME |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
| 1. **6**
 | **SPA.ETOPS.105****AMC20-6 Appendix 8 para 4****M.A.302****ICAO doc. 10085, para 4.13** | Dual maintenance  | - Check that the operator has established a programme / procedures to preclude identical errors being applied to multiple identical and / or similar elements in any ETOPS significant system during the same routine or non-routine maintenance visit / event  |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **Reliability programme** |
|  | **SPA.ETOPS.105****AMC20-6 Appendix 8 para 3.2.1****M.A.302** | General | - Check that the operator has established a reliability programme which includes assessment of ETOPS significant systems performance during scheduled inspection/testing, to detect system failure trends in order to implement appropriate corrective action such as scheduled task adjustment.- Check that the reliability programme is event-oriented and incorporates:a. reporting procedures b. operator’s assessment of propulsion systems reliabilityc. APU in-flight start programmed. Oil consumption programmee. Engine condition monitoring programmef. Verification programme |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **ORO.GEN.160****AMC20-6 Appendix 8 para 2****Reg. (EU) 376/2014****Reg. (EU) 2015/1018****M.A.202** | Occurrence reporting | - Check that the following occurrences (in addition to in-flight shutdown) are included in the operator’s list of occurrences to be mandatorily reported for ETOPS flights:* In-flight shutdowns or flameouts
* Diversion or turn-back
* Un-commanded power changes or surges;
* Inability to control the engine or obtain desired power;
* Failures or malfunctions of ETOPS significant systems having a detrimental effect to ETOPS flight.

- Check that the operator’s procedures foresee the include the following information for ETOPS related occurrences:* aircraft identification;
* engine, propeller or APU identification (make and serial number);
* total time, cycles and time since last shop visit;
* for systems, time since overhaul or last inspection of the defective unit;
* phase of flight; and
* corrective action;
* resulting action by the flight crew (divert, return, continue, etc.).
 |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **SPA.ETOPS.105****AMC20-6 Appendix 8 para 3.2.2****M.A.302(g)****AMC M.A.302(g)** | Propulsion system reliability | - Check that the programme foresees the submission to the competent authority at least on a monthly basis of a report covering:* Engine hours flown;
* IFSD rate for all causes (on a 12 M moving average basis);
* Engine removal rate (on a 12 M moving average basis).

- Check that operators’ procedures foresee that all adverse sustained trend will be evaluated by the operator in consultation with its CA, and that appropriate corrective actions may need to be defined and implemented. |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **SPA.ETOPS.105****AMC20-6 Appendix 8 para 3.2.3****M.A.302** | APU in-flight start programme | - Check that the operator has established a cold soak in-flight starting programme for the APU (when an APU is required for ETOPS and the aeroplane is not operated with its APU running at the ETOPS entry point).- Check that the APU in-flight reliability programme is adequately described.Note: The APU in-flight start monitoring programme may be alleviated once the APU in-flight start reliability is proven.- Check that the Maintenance procedures include the verification of in-flight start reliability following maintenance of the APU and APU components, as defined by the OEM, where start reliability at altitude may have been affected |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **SPA.ETOPS.105****AMC20-6 Appendix 8 para 3.2.4****M.A.302** | Oil consumption monitoring programme | Check that the operator has established an oil consumption monitoring programme, which reflects the (S)TC holder’s recommendations and track oil consumption trends. - Check that it is continuous and includes all oil added at the departure station.- Check that an APU oil consumption monitoring programme has been added to the oil consumption monitoring programme, If the APU is required for ETOPS dispatch. |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **SPA.ETOPS.105****AMC20-6 Appendix 8 para 3.2.5****M.A.302** | Engine condition monitoring programme | - Check that the operator has established an engine condition monitoring programme, which:* describes the parameters to be monitored, method of data collection and corrective action process;
* reflects manufacturer’s instructions and industry practice.
 |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **SPA.ETOPS.105****AMC20-6 Appendix 8 para 3.2.6****M.A.302** | Verification programme | - Check that the operator has established and described a verification programme allowing to ensure that the corrective actions required to be accomplished following an engine shutdown, any ETOPS significant system failure or adverse trends or any event which require a verification flight or other verification action are established.- Check that the description of the programme includes information about who initiates verification actions and that the section or group responsible for the determination of what action is necessary is identified.- Check that the description of the programme is included in the CAME or separate ETOPS manual. |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **Maintenance arrangement** |
| **1.** | **SPA.ETOPS.105****CAMO.A.315 (c)** | Maintenance arrangement | - Check that the operator has established a maintenance arrangement / contract consistent with a nature and extent of the ETOPS operations.  |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **Continuing airworthiness management exposition / ETOPS manual** |
| **1.** | **AMC20-6 Appendix 8 para 4****CAMO.A.300** | Continuing airworthiness management exposition (CAME) / ETOPS manual | - Check that the operator’s CAME or separate ETOPS manual contains the procedures necessary to ensure the continuing airworthiness of the aircraft particularly related to ETOPS operations and in particular:* General description of ETOPS procedures
* ETOPS maintenance programme development and amendment
* ETOPS reliability programme procedures
* Engine/APU oil consumption monitoring
* Engine/APU Oil analysis
* Engine conditioning monitoring
* APU in-flight start programme
* Verification programme after maintenance
* Failures, malfunctions and defect reporting
* Propulsion System Monitoring/Reporting
* ETOPS significant systems reliability
* Parts and configuration control programme
* Maintenance procedures that include procedures to preclude identical errors being applied to multiple similar elements in any ETOPS significant system (Dual maintenance)
* Interface procedures with the ETOPS maintenance contractor, including the operator ETOPS procedures that involve the maintenance organisation and the specific requirements of the maintenance arrangement / contract;
* ETOPS release statement / procedures;
* Procedures to establish and control the competence of the personnel involved in the continuing airworthiness and maintenance of the ETOPS fleet.
 |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **Continuing airworthiness and maintenance staff training** |
|  | **AMC20-6 Appendix 8 para 5****CAMO.A.305(d)(g)**  | Continuing airworthiness and maintenance staff additional training | - Check that the operator has established a qualification programme for continuing airworthiness management and maintenance personnel involved in ETOPS maintenance tasks, including:* An ETOPS training programme reflecting the relevant ETOPS procedures of the operator, and
* The performance of ETOPS tasks under supervision, within the framework of the Part-145 approved procedures for Personnel Authorisation.

- Check that the training programme includes initial and recurrent training and addresses the following:* INTRODUCTION TO ETOPS REGULATIONS
* Contents of AMC 20-6
* ETOPS Type Design Approval – a brief synopsis
* ETOPS OPERATIONS APPROVAL
* Maximum approved diversion times and time-limited systems capability
* Operator’s Approved Diversion Time
* ETOPS Area and Routes
* ETOPS MEL
* ETOPS CONTINUING AIRWORTHINESS CONSIDERATIONS
* ETOPS significant systems
* CMP and ETOPS aircraft maintenance programme
* ETOPS pre-departure service check
* ETOPS reliability programme procedures
* Engine/ APU oil consumption monitoring
* Engine/APU Oil analysis
* Engine conditioning monitoring
* APU in-flight start programme
* Verification programme after maintenance
* Failures, malfunctions and defect reporting
* Propulsion System Monitoring/Reporting
* ETOPS significant systems reliability
* Parts and configuration control programme
* CAMO additional procedures for ETOPS
* Interface procedures between Part-145 organisation and CAMO
* ETOPS release procedures and ETOPS maintenance release statement
 |  | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **ETOPS demonstration flight (Airworthiness aspects)** |
|  | **AMC20-6 Appendix 8** | Pre-departure service check, MEL / CDL application, ETOPS release statement / procedures,  | - Check the performance of Pre-departure service check. The aim of this check is to verify the status of the aeroplane and the ETOPS significant systems; - Check the maintenance personnel accomplishing Pre-departure service check are adequately trained and authorised; - Check that the dual maintenance procedures to preclude identical errors being applied to multiple identical and / or similar elements in any ETOPS significant system during the performance of Pre-departure service check (if applicable);- Check for MEL / CDL application (if applicable);- Check for application of ETOPS flight release procedures and issuance of ETOPS maintenance release statement. This ETOPS maintenance release statement should therefore be issued as part of the certificate of release to service.  | **N/A** | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |
|  | **AMC20-6 Appendix 8** | ETOPS demonstration flight | A presence of airworthiness inspector on board the aeroplane during a ETOPS demonstration flight | **N/A** | [ ] N/A[ ]  C[ ]  NC[ ]  N/R |  |

**TKA rekomendacija tvirtinti leidimą arba pakeitimus**

*TCA Recommendation for approval:*

|  |  |
| --- | --- |
| ***Dokumento DVS registracijos nr.****DVS document registration nr.* |  |

|  |  |  |
| --- | --- | --- |
|  | **Inspektorius rekomenduojantis tvirtinti leidimą** (*vardas, pavardė, parašas (elektroninis parašas pripažįstamas tinkamu)*)*Inspector (Name/signature)* | **Data***Date* |
| **SPS inspektorius (-iai)***Flight operations inspector (FOI)* |  |  |
| **Orlaivių skyriaus inspektorius (-iai)***Aircraft (Airworthiness) division inspector(s)* |  |  |
| **Kiti***Others* |  |  |