

# **Implementation procedure for certification and continued airworthiness of Beriev Be-200E and Be-200ES-E**

## **1. Scope**

- 1.1 The general process is described in the implementation procedure for design approvals of aircraft, engine and propeller from CIS and in the implementation procedure for design approvals of aircraft, engine and propeller from EU.
- 1.2 This procedure further defines and documents the process to be used by the EASA and the IAC for the type certification/validation programme for the Beriev Be-200E and Be- 200ES-E with the objective to organise the demonstration of compliance with the airworthiness codes of both parties in an efficient manner.
- 1.3 This procedure also defines the roles and actions of EASA and IAC with regard to continued airworthiness for the Beriev Be-200E and Be-200ES-E.
- 1.4 Should the need arise for clarification of any part of this procedure, such clarification will be made by revising this document jointly by EASA and IAC.

## **2. General obligations**

- 2.1 All activities performed by the applicant for type-certification must be transparent to enable the appropriate controls by EASA and IAC. Consequently, both Parties shall provide any necessary support to the other Party to enable access to all files and facilities, relevant to Be-200E and Be-200ES-E, located, in particular, in Russia, Ukraine and in the EU countries.
- 2.2 EASA and IAC may use specialists from other organisations. They will notify each other of such arrangements having an effect on the procedures outlined in this Arrangement.

## **3. Certification Procedures**

### **3.1 Design Organisation Approval**

IAC shall support and advise EASA on any aspects of the investigation / surveillance related to Beriev Be-200E and Be-200ES-E design activities that are carried out by their respective applicants and their design subcontractors. Particularly, IAC shall support EASA in any visits to the applicants' facilities or to any other facility which is part of the design organisation, in the frame of EASA DOA investigation / surveillance for BISP application concerning Be-200E design organisation.

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### **3.2 Type Certification**

Both Parties agree to conduct, as jointly as possible, the certification/validation exercises of both aeroplanes because of the similarities between the Beriev Be-200ES-E and the Be-200E.

#### **3.2.1 Beriev Be-200E**

3.2.1.1 General. The Be-200E is a derivative of the Be-200ES-E. In the frame of the Restricted Type Certificate for Be-200E Fire-Fighter version, the MotorSich D-436TP engine is considered as appliance (as authorized by IR 21A.23(b) 2) and Beriev Irkut Seaplane Company (BISP) will be in charge to coordinate any design activities carried out by Ivchenko-Progress design office or their sub-contractors.

The EASA type-certificate for the Beriev Be-200E will be validated by the IAC according to usual ICAO principles after completion of this procedure.

3.2.1.2 EASA and IAC will fulfil their responsibilities using the following principles:

(a) IAC nominates a focal point to act as the interface with EASA for the Be-200E programme.

This focal point is empowered by IAC to nominate the specialists who will participate to the activity, in particular to the meetings identified in paragraph 3.2.3.

IAC notifies to EASA the list of nominated specialists for the validation programme.

(b) EASA notifies to Beriev Irkut Seaplane Company (BISP) its certification basis.

(c) IAC notifies to EASA and Beriev Irkut Seaplane Company (BISP) its validation basis.

(d) IAC notifies to EASA and Beriev Irkut Seaplane Company (BISP) the requirements of the IAC validation basis, which are not covered by the EASA certification basis.

(e) EASA makes the compliance finding with the EASA certification basis.

(f) In order to demonstrate compliance with the entire IAC validation basis, the following will be applied:

- IAC will make the compliance findings with the requirements of the IAC validation basis identified in paragraph 3.2.1.2 (d).

- IAC will identify and notify to EASA and Beriev Irkut Seaplane Company (BISP) the requirements for which there is a difference in means of compliance between EASA and IAC. This also may be a subject for specialised meetings mentioned in 3.2.3(c).

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- for all other cases, IAC will accept the findings made by EASA under paragraph 3.2.1.2 (e) as acceptable compliance findings against the requirements of the IAC validation basis, which are considered as being covered by the EASA certification basis.

*Note: The “Implementation Procedure for design approvals of aircraft, engines and propellers from EU” describes the complete procedures applicable for the IAC validation exercise and should be fully considered, in conjunction with the above provisions. It applies, for example, to the general provision requesting EASA to provide a formal compliance statement with IAC validation basis at the end of the process.*

### 3.2.2 Beriev Be-200ES-E

3.2.2.1 The IAC type-certificate for the Beriev Be-200ES-E, a derivative from the Beriev Be-200ES, will be validated by EASA according to usual ICAO principles after completion of this procedure.

3.2.2.2 EASA and IAC will fulfil their responsibilities using the following principles:

(a) EASA nominates a focal point to act as the interface with IAC for the Be-200ES-E programme.

This focal point is empowered by EASA to nominate the specialists who will participate to the activity, in particular to the meetings identified in paragraph 3.2.3.

EASA notifies to IAC the list of nominated specialists for the validation programme.

(b) IAC notifies to Beriev Aircraft Company its certification basis.

(c) EASA notifies to IAC and Beriev Aircraft Company its validation basis.

(d) EASA notifies to IAC and Beriev Aircraft Company the requirements of the EASA validation basis, which are not covered by the IAC certification basis.

(e) IAC makes the compliance finding with the IAC certification basis.

(f) In order to demonstrate compliance with the entire EASA validation basis, the following will be applied:

- EASA will make the compliance findings with the requirements of the EASA validation basis identified in paragraph 3.2.2.2 (d).

- EASA will identify and notify to IAC and Beriev Aircraft Company the requirements for which there is a difference in means of compliance between IAC and EASA. This also may be a subject for specialised meetings mentioned in 3.2.3(c).

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- for all other cases, EASA will accept the findings made by IAC under paragraph 3.2.2.2 (e) as acceptable compliance findings against the requirements of the EASA validation basis, which are considered as being covered by the IAC certification basis.

*Note: The “Implementation Procedure for design approvals of aircraft, engines and propellers from CIS” describes the complete procedures applicable for the EASA validation exercise and should be fully considered, in conjunction with the above provisions. It applies, for example, to the general provision requesting IAC to provide a formal compliance statement with EASA validation basis, at the end of the process.*

### **3.2.3 Meetings**

Both Parties will conduct the certification programme according to their usual procedures but, in order to fulfil the goal of this procedure, each Party will be closely associated to the activity of the other Party as described below.

(a) Two kinds of meetings will be considered:

- Management meetings at planned dates, to make an overall review of the programme.
- Specialised technical meetings for certification/validation, called “certification technical meetings (CTMs)”.

(b) The Party in charge of the primary certification of the relevant Beriev aircraft [hereafter called “certifying Party”] will organise all meetings with the applicant, at agreed, fixed, dates. The other Party’s focal point, identified under paragraph 3.2. above, will be invited to attend these meetings.

(c) In between the planned CTMs, the certifying Party may organise additional specialised meetings with the applicant, as appropriate. The other Party’s focal point will be invited to attend and to designate any specialists, from the team identified under paragraph 3.2., when such attendance is necessary.

(d) The validating Party may organise additional specialised meetings as necessary for the compliance with the requirements of the validation basis identified under 3.2. An invitation to attend such meetings will be sent to the other Party.

### **3.3 Implementation**

Both Parties will conduct the certification programme according to their usual procedures but, in order to fulfil the goal of this procedure, each Party agrees on the following:

- 3.3.1 Certification plan. The applicant shall submit the certification plan to each authority simultaneously for review and acceptance by both authorities in order to comply with the intent of this procedure.

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3.3.2 Delegations. EASA and IAC may choose to delegate certain aspects of the certification process (e.g. test witnessing or conformity inspections) to the proper authority, after assessment by the delegating authority of the delegated authority's organisation and procedures to ensure these provide an equivalent level of assurance to that of the delegating authority. In such cases, the delegating authority will advise its decision to the other Party and to the applicant.

3.3.3 Test Plans and means of substantiation. Test plans and proposed means of substantiation will be sent to both EASA and IAC.

Unforeseen circumstances arising during the actual testing may make it desirable for deviations from the agreed Test Plan. In such circumstances, the certifying Party will agree the deviation if the testing is related to the certification basis. The validating Party will agree the deviation if the testing is related to requirements referred to in paragraph 3.2.1.2 (d) or 3.2.2.2 (d) and the certifying Party will be informed accordingly.

3.3.4 Witnessing of testing. The tests will be conducted in accordance with the agreed test plans and, if delegated under paragraph 3.3.2, may be witnessed by EASA, IAC or other delegated authority. The certifying Party shall take the appropriate actions with regard to the witnessing if the testing is related to requirements of the certification basis. If the testing is related to requirements referred to in paragraph 3.2.1.2 (d) or 3.2.2.2 (d), the validating Party will take the appropriate actions.

3.3.5 Equipment qualification. EASA and IAC agree that the equipment can be qualified through a Declaration of Design and Performance (DDP), on the basis of their respective standards, and proven adequate for the mission and operating environment of Be-200ES-E and Be-200E.

3.3.6 Conformity inspections. It is acknowledged that the applicant makes the conformity inspections before any test. Conformity inspections of prototype parts, test samples or test set-up may be required by the Certifying Party. This Party may choose to delegate the conformity inspection as specified in 3.3.2. If the conformity inspection is related to requirements referred to in paragraph 3.2.1.2 (d) or 3.2.2.2 (d), the validating Party will take the appropriate actions.

3.3.7 Language. The EASA and IAC have accepted upon request of the applicant that all Certification Documents and Manuals specifically issued for the assessment of the Be-200E and Be-200ES-E, as well as working letters, documents and reports are issued by the applicant in English language.

EASA and IAC agree to use the English language for the coordination work between the two Authorities.

3.3.8 Units. All documents must be submitted in S.I. units.

3.3.9 Certification Documentation.

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(a) Except as otherwise provided under DOA procedures, the certifying Party will review all certification reports related to the certification basis.

(b) The validating Party will review certification reports related to requirements identified in paragraph 3.2.1.2 (d) or 3.2.2.2 (d).

The validating Party is entitled to have any other certification documentation which would be required to fulfil its obligations.

(c) When a report provided by the applicant intends to address requirements identified in both paragraphs 3.2.1.2 (b) and (d) or respectively 3.2.2.2 (b) and (d), both EASA and IAC will make the findings of compliance.

(d) The Certifying Party will retain a complete file of documentation related to the showing of compliance with requirements of the certification basis.

(e) Documents from the original assessment of the Be-200ES series validated in all or in part for the assessment of the Be-200ES-E/Be-200E will be covered by a Summary or will be subject to a full translation in English language as requested by the certification/validation teams. The EASA agrees that systematic translation must be avoided and EASA experts will therefore be instructed to minimize such requests.

Systems and structural design inspections and audits will be arranged as necessary to familiarize EASA experts with the Be-200ES original design in order to avoid the systematic translation of Description Notes.

The Statements of Compliance in the Type Certification Compliance Records will be written in English and will contain sufficient details to avoid or minimize the need for translation of the original Certification Documents from the Be-200ES.

3.3.10 Prototype aircraft for type certification. *Reserved*

## **4. Changes to the type certificate subsequent to initial type certification**

### **4.1 General**

Any change to the approved Type Design and any repair must be shown compliant with applicable requirements (certification and validation bases, plus any additional requirement notified by EASA and / or IAC after TC issuance), in accordance with the “Implementation Procedure for design approvals of aircraft, engines and propellers from EU” or the “Implementation Procedure for design approvals of aircraft, engines and propellers from CIS”, as applicable.

### **4.2 Major changes to the approved Type Design**

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The Certifying Party shall inform the validating Party of any change to the type design, approved by the certifying Party, which affects the airworthiness of the aircraft in such a way that it:

- (a) Affects any limit or condition shown on the applicable Type Certificate Data Sheet.
- (b) Affects any previously issued mandatory instruction and/or airworthiness directive.

This information is intended to allow the validating Party to modify its official documentation. Significant issues will be discussed as part of the CTMs.

### **4.3 Minor changes to the approved Type Design**

#### **(a) Be-200ES-E**

Because minor changes constitute the majority of the changes happening after certification and because the approval process should not delay the production, the validating Party agrees to limit its review of such changes to the minimum, in accordance with article 4 (g) of the working arrangement between EASA and IAC.

Advance information on future changes will be provided by the certifying Party to the validating Party as part of the CTMs so that the validating Party may provide any input with regard to the means of compliance.

The changed product shall still comply with both EASA and IAC certification/validation bases. The means of compliance would be those used for the certification of the aircraft unless otherwise requested by the applicant. The certifying Party will verify that compliance with the requirements referred to in paragraph 3.2.1.2 (d) or 3.2.2.2 (d) has been satisfactorily shown by the applicant.

Copies of the approved changes shall be given to the validating Party for its information, for coordination with production and for coordination with the aircraft certification in compliance with paragraph 5.2 below.

#### **(b) Be-200E**

Minor changes are approved by BISP under the relevant procedures of the DOA issued by EASA to BISP.

On request, copies of the approved changes may be given to the EASA and IAC for surveillance purpose or in the context of paragraph 5.2 below.

### **4.4 Repairs**

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Repairs will be treated as per the procedures described in paragraph 4.1 to 4.3 above, as appropriate.

### **5. Continued Airworthiness**

#### **5.1 Reporting of failures, malfunctions and defects**

(a) It is acknowledged that, as the holder of the type certificate for the Be-200E aircraft, Beriev Irkut Seaplane Company (BISP) is responsible for reporting failures, malfunctions and defects (including on D-436TP engines) to EASA in accordance with EU commission regulation 1702/2003. The appropriate co-ordination between EASA and IAC should be provided by EASA, as described in paragraph 5.2 below.

(b) It is acknowledged that, as the holder of the type certificate for the Be-200ES-E aircraft, Beriev Aircraft Company (BAC) is responsible for reporting failures, malfunctions and defects (including on D-436TP engines) to IAC. The appropriate co-ordination between EASA and IAC should be provided by IAC, as described in paragraph 5.2 below.

#### **5.2 Co-ordination on continued airworthiness**

(a) EASA will organise the process for continued airworthiness of the Be-200E aircraft to determine when it would be necessary to issue airworthiness directives. EASA will then communicate relevant information to the other authorities according to ICAO Annex 8.

(b) IAC will organise the process for continued airworthiness of the Be-200ES-E aircraft to determine when it would be necessary to issue airworthiness directives. IAC will then communicate relevant information to the other authorities according to ICAO Annex 8.

(c) Be-200ES-E aircraft or any part (including engine) failure, malfunction or defect, together with the proposed corrective action, reported to IAC by Beriev Aircraft Company will be transferred by IAC to EASA for information and action. Similarly, taking into account the commonality between Be-200ES-E and Be-200ES, relevant Be-200ES aircraft failure, malfunction or defect, together with the proposed corrective action, reported to IAC by Beriev Aircraft Company will be transferred by IAC to EASA for information and action. EASA will report to IAC for actions taken.

(d) Be-200E aircraft or any part (including engine) failure, malfunction or defect, together with the proposed corrective action, reported to EASA by Beriev Irkut Seaplane Company (BISP) will be transferred by EASA to IAC for information and action. IAC will report to EASA for actions taken.

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(e) Considering the high involvement of Beriev Aircraft Company/ IRKUT Corporation and Ivchenko-Progress/ MotorSich, as sub-contractors, in the design and production of the Be-200E aircraft, the IAC focal point identified under paragraph 3.2.1.2 (a) will be invited to the airworthiness review meetings organised by EASA with Beriev Irkut Seaplane Company (BISP) as part of the CMTs identified in paragraph 3.2.3.

### **6. Implementation**

- 6.1 This arrangement will come into force after agreement by the Parties.
- 6.2 Either Party may terminate this arrangement by giving a three months prior written notice to the other Party, or can decide together to change its terms.