



System Requirements Specifications (Abridged) Directorate of Airworthiness

Version: 2.0

| | |
|-----------------------|---------------------------------------|
| PROJECT NAME: | EGCA |
| CUSTOMER NAME: | DIRECTORATE GENERAL OF CIVIL AVIATION |
| LOCATION: | NEW DELHI |



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| SRS REVISION HISTORY | | | | | |
|-----------------------------|-----------------------|--------------------------|-----------------|--------------------|---------------------|
| VERSION NO | AUTHOR | CREATE/ EDIT DATE | REVIEWER | REVIEW DATE | DESCRIPTION |
| 2.0 | HARSHVARDHAN OSWAL | 13 JAN 2016 | | | BASELINE VERSION |
| | | | | | |
| | | | | | |

| SRS APPROVAL HISTORY | | | |
|-----------------------------|--|----------------------|------------------|
| SUBMITTED BY | APPROVER NAME & DESIGNATION | APPROVAL DATE | SIGNATURE |
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TABLE OF CONTENTS

| | |
|--------------------------------------|----|
| IMPORTANT NOTICE | 2 |
| 1. SYNOPSIS..... | 5 |
| 2. REFERENCE..... | 6 |
| 3. BUSINESS RULES..... | 7 |
| 4. APPLICATION / DATA ELEMENTS | 8 |
| 5. PROCESS..... | 10 |
| 6. INTERDEPENDENCIES | 11 |
| 7. OUTPUT..... | 12 |
| 8. SPECIFIC SOFTWARE FEATURES..... | 13 |
| 9. GENERAL COMMENTS..... | 14 |
| 10. APPENDIX | 15 |
| 11. REVIEW HISTORY..... | 16 |



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| AW15 | ISSUE AND RENEWAL OF AIRWORTHINESS REVIEW CERTIFICATE (ARC) |
| ADMINISTRATOR | DIRECTOR - AIRWORTHINESS |
| APPLICANT | AIRCRAFT OPERATORS |

1. SYNOPSIS

ISSUE AND RENEWAL OF AIRWORTHINESS REVIEW CERTIFICATE (ARC)

INPUT (APPLICATION) CONTAINING DETAILS OF,

1. ALL DETAILS OF AIRCRAFT, 2. OWNER DETAILS, 3. DETAILS OF MANUFACTURE, 4. STATE OF DESIGN, 5. REGISTRATION DETAILS, 6. DETAILS TOTAL NUMBER OF HOURS FLOWN SINCE MANUFACTURE, 7. LAST INSPECTION DETAILS

PROCESS

VERIFIED FOR CORRECTNESS OF PARTICULARS ALONG WITH ALL THE RELEVANT DOCUMENTS AND PERMIT GRANTED IF FOUND TO MEET THE REQUIREMENTS.

EXEMPTION

NA

OUTPUT

ISSUE OF AIRWORTHINESS REVIEW CERTIFICATE (ARC) TO THE AIRCRAFT



2. REFERENCE

| | |
|---------------------|---|
| RULE | 15, 50, 50A, 51, 52, 53, 53A, 54 AND 55 |
| CAR | SECTION 2 - SERIES F PART III, CAR 21 |
| AIC | N/A |
| FEE | RULE 62 |
| PROCEDURE MANUAL | AIR WORTHINESS DIRECTORATE PROCEDURES MANUAL CHAPTER NO 2 |

3. BUSINESS RULES

| ID NO. | REFERENC E CAR / AIC / PR. MANUAL | III. BUSINESS RULES – DIFFERENTIATE BUSINESS RULES, PROCESS AND FEATURE | REMARKS |
|------------|---|---|---------|
| AW15 / BR1 | CAR SECTION 2 - SERIES F PART III | AIRWORTHINESS REVIEW CERTIFICATE OF THE AIRCRAFT SHALL BE ISSUED BY THE REGIONAL/SUB-REGIONAL OFFICE IN ACCORDANCE WITH CAR M AFTER RECEIPT OF C OF A FROM DGCA HQRS | |
| AW15 / BR2 | CAR SECTION 2 - SERIES F PART III | FOR LARGE TRANSPORT AIRCRAFT MAINTAINED ON THE BASIS OF EQUALIZED CHECKS, PHYSICAL INSPECTION MAY NOT BE LINKED WITH ARC ISSUE / EXTENSION. SUCH AIRCRAFT ARE INSPECTED BY REGIONAL/SUB-REGIONAL AIRWORTHINESS OFFICES DURING ROUTINE MAINTENANCE, MAJOR CHECKS ETC., THROUGHOUT THE YEAR SO THAT AT THE TIME OF ARC ISSUE / EXTENSION, A DETAILED INSPECTION IS NOT REQUIRED AND THE OFFICER AUTHORIZED CAN ISSUE / EXTEND THE ARC DEPENDING ON THE VARIOUS CERTIFICATES ISSUED BY THE QUALITY MANAGER / THE AUTHORIZED PERSON OF THE AIRLINE. | |
| AW15 / BR3 | CAR SECTION 2 - SERIES F PART III | FOR THIS PURPOSE IT WILL BE NECESSARY THAT THE RO MAINTAINS A RECORD OF THE OBSERVATIONS MADE DURING ROUTINE VISITS, SPOT CHECKS AND MAJOR INSPECTION OF THE AIRCRAFT IN THE HANGARS ETC. IF THIS METHOD IS FOLLOWED, A SUFFICIENT NUMBER OF CHECKS COULD BUILD UP CONFIDENCE IN THE OFFICERS FOR ISSUANCE OF ARC AND HENCE A DETAILED INSPECTION OF THE AIRCRAFT AT THE TIME OF ARC ISSUE / EXTENSION MAY NOT BE REQUIRED. | |
| AW15 / BR4 | CAR SECTION 2 - SERIES F PART III | HEAD OF REGIONAL/SUB-REGIONAL AIRWORTHINESS OFFICES SHOULD ENSURE THAT SUFFICIENT NUMBER OF INSPECTIONS WERE CARRIED OUT AND RECORDED. | |
| AW15 / BR5 | CAR SECTION 2 - SERIES F PART III | DURING ARC ISSUE / EXTENSION, AN APPLICABLE INSPECTION AS PER THE MAINTENANCE PROGRAM APPROVED BY THE REGIONAL/SUB-REGIONAL AIRWORTHINESS OFFICES IS TO BE CARRIED OUT ON THE AIRCRAFT. ADDITIONALLY, ARC ISSUE SCHEDULE MAY BE PREPARED TO INCLUDE ITEMS SUCH AS RETRACTION OF LANDING GEAR, FUNCTIONING OF FLIGHT CONTROLS/ FLAPS, CONDITION OF PLACARDS, ELT CHECK, GENERATION OF WARNINGS ON VARIOUS COCKPIT EQUIPMENT, AND CONDITION OF ALL SAFETY EQUIPMENT, OPERATION OF EMERGENCY EQUIPMENT AND LIGHTS ETC AS APPLICABLE | |
| AW15 / BR6 | CAR SECTION 2 - SERIES F PART III | DURING ARC ISSUE / EXTENSION, THE ANNUAL INSPECTION ON CVR AND FDR, WHERE APPLICABLE, MUST BE CARRIED OUT IN ACCORDANCE WITH THE CARS ON THESE EQUIPMENT. | |
| AW15 / BR7 | CAR SECTION 2 - SERIES F PART III | C OF A OF AN AIRCRAFT WILL BE ISSUED BY THE DGCA HEADQUARTERS. ARC ISSUE / EXTENSION SHALL BE CARRIED OUT BY THE OFFICERS AUTHORIZED BY THE MINISTRY UNDER THE DELEGATION OF POWERS (SO 726E) AND UNDER NO CIRCUMSTANCES IT WILL BE SIGNED BY AN OFFICIATING OFFICER OR AN OFFICER LOOKING AFTER THE CURRENT DUTIES OF HIGHER RANK. | |



4. APPLICATION / DATA ELEMENTS

| ID | REFEREN CE CAR / AIC / PR. MANUA L | PARTICULARS | DETAIL | REMARKS |
|----------------|---|--|---|--|
| AW15 – DE 1 | | APPLICATION FOR ISSUANCE OF CERTIFICATE OF AIRWORTHINESS | 1. NAME AND ADDRESS OF OWNER, 2. NATIONALITY, 3. NAME AND ADDRESS OF APPLICANT(IF OTHER THAN THE OWNER OF AIRCRAFT), 4. NAME AND ADDRESS OF MANUFACTURER, 5. DATE OF MANUFACTURE, 6. STATE OF DESIGN, 7. REGISTRATION MARK, 8. DESCRIPTION OF AIRCRAF, 9. MAXIMUM TAKE-OFF MASS OF AIRCRAFT (AS GIVEN IN MANUFACTURERS DOCUMENT), 10. TOTAL NUMBER OF HOURS FLOWN SINCE MANUFACTURE, 11. HOURS FLOWN SINCE LAST C OF A RENEWAL (IF APPLICABLE), 12. LAST MAJOR INSPECTION CARRIED OUT, 13. DATE OF LAST MAJOR INSPECTION, 14. IS THE AIRCRAFT: (APPLICABLE FOR AIRCRAFT MANUFACTURED IN INDIA) A) A PROTOTYPE, B) SERIES AIRCRAFT, 15. (APPLICABLE FOR FOREIGN MANUFACTURED AIRCRAFT) (A) STATE OF ORIGIN OF CERTIFICATE OF AIRWORTHINESS PRESENTED (B) SERIAL NUMBER OF THE CERTIFICATE OF AIRWORTHINESS PRESENTED (C) EXPORT C OF A OR EQUIVALENT DOCUMENT (D) C OF A CATEGORY: I) PASSENGER II) MAIL/GOODS III) AERIAL WORK IV) PRIVATE E) SPECIAL CATEGORY (SPECIFY), 16. NAME AND ADDRESS OF APPROVED ORGANISATION/ LICENSED AIRCRAFT MAINTENANCE PERSONNEL WITH WHOM AIRCRAFT IS AVAILABLE FOR INSPECTION, 17. DETAILS OF FEES PAID (DEMAND DRAFT NO/ INDIAN POSTAL ORDER NO./ AMOUNT/ NAME OF THE BANK), 18. DECLARATION | APPENDIX A – CA25 |
| AW15 – DE 2 | | DETAILS OF AIRCRAFT SYSTEMS, INSTRUMENTS AND EQUIPMENT | 1. PRESSURIZATION SYSTEM, 2. AUTOMATIC FLIGHT CONTROL AND GUIDANCE SYSTEMS, 3. COCKPIT VOICE RECORDER- STATE DURATION OF RECORDING (ROTOR RPM RECORDING FACILITY ON CVR FOR | APPENDIX B - APPENDIX TO THE CA 25 |



| ID | REFEREN CE CAR / AIC / PR. MANUA L | PARTICULARS | DETAIL | REMARKS |
|----|---|---------------------------|--|---------|
| | | INSTALLED IN THE AIRCRAFT | HELICOPTERS ONLY), 4. ELECTRIC POWER GENERATORS, 5. MAIN BATTERIES, 6. OXYGEN SYSTEM, 7. ENGINE FIRE DETECTION SYSTEM, 8. PORTABLE FIRE EXTINGUISHERS, 9. STALL DETECTION AND WARNING SYSTEM, 10. FUEL QUANTITY INDICATING SYSTEM, 11. ICE AND RAIN PROTECTION SYSTEMS, 12. TYPE OF DFDR INSTALLED, 13. EMERGENCY LIGHTING SYSTEM INCLUDING EMERGENCY ESCAPE PATH LIGHTING, 14. ANTI-COLLISION LIGHTING, 15. COMPASSES, 16. AUTOMATIC NAVIGATION SYSTEM, 17. ROTOR LOW RPM WARNING INDICATION SYSTEM (HELICOPTERS ONLY), 18. ADDITIONAL SYSTEMS INSTALLED FOR AERIAL WORK OPERATIONS, 19. ARE THERE PROVISIONS FOR THE INSTALLATION OF SAFETY HARNESSES AT - A) FLIGHT CREW SEAT POSITIONS? B) CABIN CREW SEAT POSITIONS? C) PASSENGER SEAT POSITIONS?, 20. ARE THERE PROVISIONS FOR CARRYING EXTERNAL LOADS?, 21. ARE THERE PROVISIONS FOR GLIDER TOWING?, 22. STATE TOTAL FUEL CAPACITY KG, 23. GIVE DETAILS OF EQUIPMENT (OTHER THAN THAT LISTED IN 1 TO 18) WHICH HAS BEEN INTRODUCED BY MODIFICATION ACTION (STATE MANUFACTURER AND TYPE), 24. GIVE DETAILS OF CHANGES, IF ANY, INTRODUCED IN THE FLIGHT MANUAL, AS A RESULT OF MODIFICATION ACTION | |



5. PROCESS


| | |
|------------------------|--|
| PROCESS | <ol style="list-style-type: none"> 1. THE APPLICATION WHEN SUBMITTED WOULD ACKNOWLEDGE THE RECEIPT WITH A SYSTEM GENERATED ACKNOWLEDGEMENT NUMBER WHICH WOULD FORM THE BASIS OF REFERENCE OR TRACKING. 2. THE APPLICATION WILL LAND IN GENERAL INBOX, VERIFIER INBOX AND APPROVER INBOX. 3. SELECTION OF VERIFIER WOULD BE GUIDED BY THE WORKLOAD OF THE INDIVIDUALS WITHIN THE VERIFIER GROUP. 4. PROVISION WOULD BE MADE FOR THE APPROVER TO REASSIGN THE WORK TO ANOTHER VERIFIER OR PROCESS THE APPLICATION HIMSELF. 5. WHERE REQUIRED THE APPROVER WOULD REFER THE APPLICATION FOR EXEMPTION TO COMPETENT AUTHORITY. 6. THE DISCREPANCIES NOTED IN THE APPLICATION OR THE ATTACHMENT WOULD BE REFLECTED AS A REMARK AGAINST EACH ITEM AND A SYSTEM GENERATED DISCREPANCY REPORT WOULD BE PROVIDED TO THE APPLICANT AT THE END OF THE SCRUTINY VIA E-MAIL WITH A SMS REGARDING APPLICATION STATUS. 7. APPLICATION STATUS WOULD BE INDICATED AS REJECTED/ IN PROCESS/ PENDING/ DELIVERED |
| VERIFIER | VERIFY CORRECTNESS OF THE FURNISHED INFORMATION OR SEND TO RO AWO TO INSPECT THE AIRCRAFT. RO AWO WILL INSPECT THE AIRCRAFT & FILL THE CHECKLIST & SUBMIT TO HQD. |
| APPROVER | PERFORM CHECKS AS REQUIRED, APPROVE AND ISSUE APPROVAL OR SEND DISCREPANCY REPORT TO APPLICANT AND VERIFIER OR FORWARD FOR EXEMPTION OR ISSUE PERMIT |
| EXEMPTION | APPROVER TO RECOMMEND THE APPLICATION TO EXEMPTING AUTHORITY FOR GRANT OF EXEMPTION |
| RETURN AFTER EXEMPTION | DESIGNATED AUTHORITY GRANT / RETURN THE REQUEST TO APPROVER |
| PERMIT ISSUE | ISSUE OF AIRWORTHINESS REVIEW CERTIFICATE (ARC) |



6. INTERDEPENDENCIES

| SERVICE | INFORMATION RECEIVED FROM OTHER DIRECTORATE(S) / EXTERNAL STAKEHOLDER(S) | | |
|---|---|----------------------------|---|
| | INFORMATION RECEIVED/SENT | EXTERNAL STAKEHOLDER(S) | INTERNAL STAKEHOLDER |
| AW15 – ISSUE OF AIRWORTHINESS REVIEW CERTIFICATE (ARC) | C OF A | | REGIONAL OFFICE / SUB- REGIONAL OFFICE |
| | AIRCRAFT LOGBOOK | OPERATOR | |

7. OUTPUT

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|---|--|---|--|---------------------------------------|-----------------|--|--|-----------------------|--|--|---|--|--|---|--|--|
| ISSUE OF CERTIFICATE OF AIRWORTHINESS (C OF A) /AIRWORTHINESS REVIEW CERTIFICATE (ARC) | <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 5px;">सं० / No. :</div>  <div style="border: 1px solid black; padding: 5px;">ना० वि० २३ / C.A.</div> </div> <p style="text-align: center;"> भारत / India नागर विमानन महानिदेशालय / Directorate General of Civil Aviation </p> <div style="border: 1px solid black; padding: 10px; text-align: center; margin: 10px auto; width: 80%;"> उड़न-योग्यता ्रमाण-पस / Certificate Of Airworthiness </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">राष्ट्रीयता तथा पंजीकरण चिन्ह / Nationality and Registration Mark</td> <td style="width: 33%;">विमान निमाता तथा विमान निमाता द्वारा विमान को दिया गया नाम / Manufacturer and Manufacturer's Designation of Aircraft</td> <td style="width: 33%;">विमान बम सं० / Aircraft Serial No.</td> </tr> <tr> <td>वर्ग / Category</td> <td colspan="2"></td> </tr> <tr> <td>उपभाग- / Sub-Division</td> <td colspan="2"></td> </tr> <tr> <td>आव्यक्त न्यूनतम कमीर् दल / Minimum Crew Necessary</td> <td colspan="2"></td> </tr> <tr> <td>्रधिकृत अधिकतम कुल भार / Maximum All-Up-Weight Authorized</td> <td colspan="2"></td> </tr> </table> <p> इस विमान का पिर्चालन इस विमान के सम्बन्ध में जारी की गयी अनुमोदित उड़न-नियमावली तथा उसमें किये गए उत्तरवतीर् संशोधनों के अनुसार किये जायेगा। यह उड़न-नियमावली इस उड़न-योग्यता ्रमाण-पस का एक भाग समझी जायेगी तथा विमान में जायेगी। </p> <p> This aircraft is to be operated in accordance with the approved Flight Manual and its subsequent amendments, issued in respect of this aircraft. The Flight Manual shall form a part of this Certificate of Airworthiness and shall be carried on board. </p> <p> यह उड़न-योग्यता ्रमाण-पस, उपयुक् विमान, जिससे पूर्वोक्त शर्तों एवं सम्बद्ध पिर्चालन परिसीमाओं के अनुरूप सांधारित और ्रचालित किये जाने पर उड़न-योग्य समझा जाता है; उसके लिए ०७ दिसंबर, १९४४ के अंतर्राष्ट्रीय नागर विमानन विषयक अभिसमय तथा समयसमय- पर यथा संशोधित विमान-नियमावली, १९३७ के अनुसार जारी किये जाता है। </p> <p> This Certificate of Airworthiness is issued pursuant to the Convention on International Civil Aviation, dated 07th December, 1944, and the Aircraft Rules, 1937, as amended from time to time, in respect of the above mentioned aircraft which is considered to be airworthy when maintained and operated in accordance with the foregoing and the pertinent operating limitations. </p> <p> यदि उपरोक्त अिनवायर् शर्तें पूरी कर दी गयी हैं तो यह ्रमाण-पस उड़न-योग्यता पुनरावलोकन ्रमाण-पस की वैदता रहने तक वैद रहेगा बशर्त कि इस ्रमाण-पस को वापस नहीं ले लिया जाता अथवा अिनलंबित नहीं कर दिया जाता। </p> <p> This Certificate of Airworthiness shall remain valid, subjected to the above compulsory conditions being fulfilled along with valid Airworthiness Review Certificate, unless withdrawn, or suspended. </p> <p style="text-align: right;"> हःताक्षर / Signature : नाम / Name : पदनाम के साथ मुहर / Designation with Seal : </p> <p> जारी करने का दिनांक / Date of Issue : नयी दिल्ली / New Delhi. </p> | राष्ट्रीयता तथा पंजीकरण चिन्ह / Nationality and Registration Mark | विमान निमाता तथा विमान निमाता द्वारा विमान को दिया गया नाम / Manufacturer and Manufacturer's Designation of Aircraft | विमान बम सं० / Aircraft Serial No. | वर्ग / Category | | | उपभाग- / Sub-Division | | | आव्यक्त न्यूनतम कमीर् दल / Minimum Crew Necessary | | | ्रधिकृत अधिकतम कुल भार / Maximum All-Up-Weight Authorized | | |
| राष्ट्रीयता तथा पंजीकरण चिन्ह / Nationality and Registration Mark | विमान निमाता तथा विमान निमाता द्वारा विमान को दिया गया नाम / Manufacturer and Manufacturer's Designation of Aircraft | विमान बम सं० / Aircraft Serial No. | | | | | | | | | | | | | | |
| वर्ग / Category | | | | | | | | | | | | | | | | |
| उपभाग- / Sub-Division | | | | | | | | | | | | | | | | |
| आव्यक्त न्यूनतम कमीर् दल / Minimum Crew Necessary | | | | | | | | | | | | | | | | |
| ्रधिकृत अधिकतम कुल भार / Maximum All-Up-Weight Authorized | | | | | | | | | | | | | | | | |



8. SPECIFIC SOFTWARE FEATURES

| FEATURE ID | VII. SPECIFIC SOFTWARE FEATURES – DIFFERENTIATE BUSINESS RULES, PROCESS AND FEATURE | CROSS REFERENCE SECTION (IF ANY) |
|------------|--|----------------------------------|
| AW2 / SF1 | INAPPROPRIATELY FILLED FIELDS TO PROVIDE POP UP IMMEDIATELY, PROVIDING HYPERLINK TO USER GUIDE IF SELECTED NOT AFTER REACHING THE END OF THE PAGE. | |
| AW15 / SF2 | CANCELLATION AND GENERATION OF NEW APPLICATION WITH SAME DETAILS AND EDITING FEATURES – APPLICANT TO VALIDATE EACH FIELD | |
| AW15 / SF3 | DATA FIELD WILL VALIDATE OR AUTO POPULATED FORM MASTER DATABASE | |
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9. GENERAL COMMENTS

| COMMENT ID | GENERAL COMMENTS |
|------------|------------------|
| GC 1 | |
| GC 2 | |
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10. APPENDIX



11. REVIEW HISTORY

| DATE | REVIEWED BY | SECTION NUMBER | REVIEW FEEDBACK | ACTION TAKEN |
|------|-------------|----------------|-----------------|--------------|
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