

CIVIL AIRCRAFT REGULATIONS

DETAILED SYLLABUS

OBJECTIVES

It aims at enabling the student to understand civil aircraft regulations

UNIT- I Introduction, responsibility of operators/owners, procedure for issue of CAR

Introduction, Brief history OF ICAO, DGCA, FAA, JAA etc. Aircraft Act 1934: Purpose and relevance, Aircraft Act 1034: Important Rule No's- Responsibility of operators/owners, Background, Scope of responsibility, Scope of supervision by Airworthiness Directorate (Ref: CAR Sec 2: Series A Part I)- Procedure for issue of car, Scope, Promulgation of CAR, Numbering of CAR, Procedure for issue and subsequent revisions

UNIT- II Preparation and use of cockpit and emergency check list, minimum equipment list (MEL), defect recording/reporting/investigation

Preparation and use of cockpit and emergency check list, Purpose and definition, Scope (Ref CAR Sec 2 series B-II)- Minimum equipment list (mel), Applicability, Operators MEL, Framing of MEL, Use of MEL (Ref CAR Section 2: Series B-I)- Defect recording/reporting/investigation, Definitions, Procedure for defect recording, reporting rectification and analysis, Initial Information, Review of defects, Report monitoring, Classification of defects (Ref CAR Sec: 2 series C-I)

UNT- III Flight report, maintenance control by reliability method, aircraft maintenance programme and their approval, on condition maintenance of 'reciprocating engines (CO3)

Flight report, Purpose, Procedure (Ref CAR Sec2: Series C-II)- Maintenance control by reliability method, Purpose and applicability, Details of program and functioning, Sources of Information, Information analysis and remedial measures, Establishing alert values, Reliability displays, Changes in MCR method (Ref CAR Sec 2: Series C part V)- Aircraft maintenance programme and their approval, Definitions, Purpose, Primary maintenance process, Approval of the system, Monitoring, Statistical reliability method, Explanation of hidden functions (Ref: CAR Sec 2 Series D-II)- ON condition maintenance of 'reciprocating engines, Background and scope, Procedure (Ref CAR Sec 2, Series D-III)

UNIT- IV Fixing of routine maintenance periods- TBO, approval of organizations/operators, registration/derecognizing of aircraft

Fixing of routine maintenance periods-tbo, Applicability, Fixation of initial period, Revision of initial period s(Ref CAR Sec 2: Series D-VI)- Approval of organizations/operators, Introduction, Applicability, Procedure, Facility requirements, Manual requirements, Aircraft maintenance procedure, Approval in different categories (Ref CAR Sec 2: Series E), CAR-145-Introduction and applicability- Registration/derecognizing of aircraft, Procedure relating to registration/derecognizing of aircraft, Introduction, Definitions, Change of ownership, Aircraft imported by Air, Registration certificate and validity, Location of nationality or common mark and registration, Measurement of Nationality and registration marks (Ref: CAR Sec F Part I)

UNIT- V issue/re validation of type certificate of aircraft, issue /validation and renewal of certificate of airworthiness, control system -duplicate inspection, approval of flight manual (CO5)

Issue/re validation of type certificate of aircraft:, Applicability, requirement for issue of type certificate, requirement for re validation of type certificate (Ref: CAR section II F pt 2)- Issue /validation and renewal of certificate of airworthiness, Introduction, Issuance of C of A, Validity of C of A, renewal of C of A, Short term of C of A, suspension of C of A (Ref: CAR section II F pt 3)- Control system -duplicate inspection, Applicability, Definition, Procedure (Ref: CAR section II F pt xi)- Approval of flight manual, Definition, Applicability, Format of flight manual (Ref: CAR section II F pt xvi)

UNIT- VI Age of aircraft to be imported, mandatory modification (inspection), Extended twin engine operations, flight testing of aircraft, aircraft log books (CO6)

Age of aircraft to be imported, Introduction, Background, Applicability (Ref: CAR section II F pt xx)- Mandatory modification (inspection), Applicability, Purpose, Definition, Procedure (Ref CAR section II F pt I)- Extended twin engine operations, Introduction, Applicability, Definition, Procedure, ETOPS categories, Propulsion system monitoring (Ref: CAR section II o pt 8)- Flight testing of aircraft, Applicability, Definition, Circumstances necessitating flight testing, Procedure during flight testing, Flight test report (Ref: CAR section II T pt 2)- Aircraft log books, Introduction, Applicability, Format of journey log book, General requirements (Ref: CAR section II X pt VI)

TEXT BOOKS

1. Internet website: - dgca.gov.in
2. Civil aircraft regulations, vol. I & II