# RÉPUBLIQUE DÉMOCRATIQUE DU CONGO
## AUTORITÉ DE L'AVIATION CIVILE

# PROGRAMME
# DE FORMATION THÉORIQUE DU PERSONNEL TECHNIQUE DE L'AAC/RDC
# « ETFAAC-ORG -00-02 »

**Approuvé par le Directeur Général de l'AAC/RDC**

**2eme édition – août 2022**

# PROGRAMME DE FORMATION THEORIQUE DU DOMAINE DE LA NAVIGABILITÉ DES AÉRONEFS (AIR)

## ANNEXE 3 AU MANUEL DE GESTION DE FORMATION DU PERSONNEL TECHNIQUE DE L'AVIATION CIVILE DE LA RÉPUBLIQUE DÉMOCRATIQUE DU CONGO (MOAAC-ORG-00-05) :

## PROGRAMME DE FORMATION THEORIQUE DU PERSONNEL TECHNIQUE DU DOMAINE DE LA NAVIGABILITE DES AERONEFS (AIR)

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| **1. FORMATION INITIALE** |
| **A. Formation initiale introductive** |
| Orientation de nouveaux employés |
| Organisation de l'Aviation Civile Internationale (OACI) |
| Organisation du système national d'aviation civile |
| Réglementation nationale relative à l'aviation civile |
| **B. Formation initiale de base** |
| Politiques et procédures de certification/autorisation, de surveillance et de résolution des problèmes de sécurité |
| Programme de sécurité de l'Etat (PSE/PNS) et Plan national de sécurité de l'aviation (NASP) |
| Système de management de la sécurité |
| Système de management de la qualité |
| Facteurs humains |
| Technique d'audit/inspection |
| Résolution des problèmes de sécurité |
| 123 Base sûreté |
| Responsabilités administratives civiles et pénales |
| **C. Formation initiale de spécialisation** |
| ICAO Government Safety Inspector – GSI AIR ou équivalent (Formations de certification et de surveillance continue des exploitants aériens – volet navigabilité et Formations de certification et de surveillance continue des organismes de maintenance) |
| Approbations opérationnelles spécifiques (RVSM, EDTO, LVO, LVP, MNPS, PBN, EFB) – aspect navigabilité |
| Immatriculation des aéronefs (aircraft registration) |
| Programme d'entretien (Aircraft maintenance program) |
| Liste minimale d'équipements de référence/liste minimale d'équipements (MMEL/MEL) |
| Modifications et réparations majeures |
| Inspection sur l'aire de trafic (SAGA, SANA, SAFA) |
| **2. FORMATION CONTINUE DE MAINTIEN DE COMPETENCE (RECYCLAGE & PERIODIQUE)** |
| Règlementation relative à l'aviation civile et documents OACI pertinents (chaque évolution) |
| Politiques et procédures de certification/autorisation, de surveillance et de résolution des problèmes de sécurité (chaque évolution) |
| Code d'éthique et conduite professionnelle (tous les 5 ans ou à chaque évolution) |
| Programme de sécurité de l'Etat (PSE/PNS) et Plan national de sécurité de l'aviation (NASP) (à chaque évolution) |
| Système de management de la sécurité (tous les 3~5 ans) |
| Facteurs humains (tous les 3~5 ans) |
| 123 Base sûreté (tous les 2 ans) |
| Inspection sur l'aire de trafic (SAGA, SANA, SAFA) (tous les 3~5 ans) |
| **3. FORMATION AVANCEES ET SPECIALISEES** |
| Établissement d'un plan de surveillance |
| Marchandises dangereuses cat 6 |
| Surveillance des operations de location d'aéronefs (Oversight of Aircraft Leasing Operations) |
| Règlementation des systèmes d'aéronef sans pilote (Unmanned Aircraft Systems Regulations) |

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| Qualification/Familiarisation générale (GenFam) sur type aéronef (en fonction de la flotte de la RDC) |
| Systèmes avioniques (GPS System, Mode S transponder/TCAS, GPWS, Weather Detection Equipment, Flight Data Recorders, Cockpit Voice Recorders, EFIS/EICAS, …) |
| Introduction à la certification des aéronefs lourds (CS-25 Large Aeroplane Certification) |
| Gestion du maintien de la navigabilité des aéronefs *lourds (*Continuous Airworthiness Management for Large Aircraft) |
| Système d'interconnexion de câblage électrique (Electrical wiring interconnection systems - EWIS) |
| Sécurité des réservoirs de carburants (Aircraft fuel tank safety - FTS) |
| Masse et centrage d'aéronef (Aircraft weight and balance) |
| Programme de fiabilité des aéronefs (Aircraft reliability program) |
| Analyse des données de vol (flight data monitoring ) |
| Surveillance des tendances du moteur (Engine trend monitoring – ETM) |
| Gestion des risques liés à la fatigue (Fatigue Risk Management Systems - FRMS) |
| Aircraft Inspection Techniques |
| Planification de la production – gestion et surveillance (Production Planning Management and Oversight) |
| Procédures de gestion et d'inspection des magasins (Stores Management & Inspection Procedures and Processes) |
| Enregistrements techniques d'aéronef (Aircraft Technical Records) |
| Programme de prévention et de contrôle de la corrosion des aéronefs (Aging Aircraft - Corrosion Prevention and Control Program) |
| Control non destructif (Non destructive test - NDT) |
| Plan d'intervention d'urgence (Emergency response plan - PIU/ERP) |
| Familiarisation aux enquêtes sur les accidents et incidents d'aviation |
| ICAO Government Safety Inspector – Air Cargo Certification |
| ICAO Government Safety Inspector – GSI PEL ou equivalent |
| Certification des organismes de formation aéronautique (Approval of training organization) |
| ICAO Government Safety Inspector – GSI OPS ou equivalent |
| Prise de décision basée sur les données d'aviation (Aviation Data-Driven Decision Making (AD3M)) |
| Analyse des causes profondes (Root Cause Analysis) |
| European Co-ordination center for accident and incident reporting systems (ECCAIRS) |
| Environnement (bruit, émissions de moteur d'aviation, CORSIA) |
| Instructeur (Training instructors course - TIC) |
| Développeur de cours (training developers course - TDC) |
| Instructeurs des formations en cours d'emploi (On-the-job training instructor) |
| ICAO USOAP CMA – LEG/ORG |
| ICAO USOAP CMA – AIR |
| ICAO USOAP CMA – PEL |
| ICAO USOAP CMA – OPS |
| Management de la conformité aux SARPs OACI |
| Responsables de la supervision de la sécurité (safety oversight managers) |

Le contenu des formations est décrit dans l'appendice du présent programme de formation.

Fait à Kinshasa, le 29 août 2022

Le Directeur Général

**TSHIUMBA MPUNGA Jean**

# APPENDICES DE L'ANNEXE 3 : CONTENU DES FORMATIONS DU PROGRAMME DE FORMATION DOMAINE AIR

| | DURÉE DU COURS | OBJECTIFS DU COURS | DESCRIPTION DU COURS | FORMEL (OUI/NON) |
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| **1. FORMATION INITIALE** | | | | |
| **A. FORMATION INITIALE INTRODUCTIVE** | | | | |
| Orientation de nouveaux employés | 16H | Fournir des informations sur l'organisation et le fonctionnement des différentes directions, cellules et commission de l'AAC/RDC | Mission, organisation et fonctionnement de l'AAC/RDC (decret organique, cadre organique...)<br>Procédures administratives de l'AAC/RDC (avantages sociaux, temps de travail et présence, code d'éthique et de conduite, sanctions, remunération,...)<br>Gestion des ressources<br>Système d'information<br>Système Qualité de l'AAC/RDC | NON |
| Organisation de l'Aviation Civile Internationale (OACI) | 4H | Fournir des informations sur le rôle de l'OACI, la Convention de Chicago et ses annexes ainsi que les obligations internationales de la RDC relatives à la sécurité aérienne | Convention relative à l'aviation civile internationale<br>Objectif de l'OACI<br>Organisation de l'OACI<br>Dispositions de la Convention relatives à la supervision de la sécurité<br>Normes et pratiques recommandées (SARPs)<br>Publications de l'OACI (annexes, documents)<br>Dispositions pertinentes des annexes | NON |
| Organisation du système nationale d'aviation civile | 2H | Fournir des informations sur la structure du système d'aviation civile de la RDC | Description les rôles et fonctions des différents acteurs du système nationale de l'aviation de la RDC<br>(Ministère en charge de l'aviation civile,AAC, BPEA, RVA, etc.) | NON |
| Réglementation nationale relative à l'aviation civile | 8H | Fournir au nouvel employé des informations sur le cadre reglementaire et législatif en RDC | Description du cadre législatif et réglementaire de l'aviation civile (loi, décret, etc.)<br>Identification des règlements aéronautiques de la RDC (RACD)<br>Présentation de la Loi sur l'aviation civile<br>Présentation des Règlements RADC relatifs au domaine de supervision concerné<br>Présentation des textes relatifs à l'exercice de la fonction d'inspecteur de supervision de la sécurité aérienne | NON |
| **B. FORMATION INITIALE DE BASE** | | | | |
| Politiques et procédures de certification/autorisation, de surveillance et de résolution des problèmes de sécurité | 40J | Fournir des informations relatives au système de supervision | Familiarisation aux procédures de gestion documentaire- élaboration des RACD et documents associés- adoption des RACD et documents associés- amendement des RACD et documents associés- diffusion des RACD et documents associésProcessus de notification des différences à l'OACI- Obligation et exigences de notification des différences- Détermination des différences- Notification des différences- Processus et procédures de gestion des différences- Cas pratique (démonstration)Fonctions et rôles des inspecteurs- obligations des inspecteurs- présentation des fiches de poste de la Direction/Cellule/Commission- présentation des fiches de postes des inspecteursPrésentation de la méthode de surveillance continue (CMA) et des outils de sécurité de l'Aviation Civile des Etats (SAST) - Eléments cruciaux d'un système de supervision de la sécurité- Présentation des questions de protocoles (PQs) relatives aux domaines concernés- Elaboration d'un plan d'actions correctrices (CAP) OACI- Cadre en ligne de la CMA- Outils SAST.Formation et qualifications des inspecteursManuel des procédures des inspecteurs du domaine concerné- Organisation de la direction/cellule/commission- Politique de supervision de la sécurité de l'AAC/RDC- Code de conduite du personnel technique de l'AAC/RDC- Activités de supervision (audit, inspection..)- Procédures, formules et listes de vérification | NON |
| Programme de sécurité de l'Etat | 40H | Développer et mettre en oeuvre un SSP conforme aux SARP pertinents de l'OACI, y compris un | Exigences du SSP et du SMS- Le besoin de développer le SSP- Le SSP comme passerelle entre les processus de sécurité de l'État et du fournisseur de servicesContenu et amendements futurs de l'Annexe 19 de l'OACIContenu et | OUI |

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| | | cadre de travail réglementaire harmonisé pour la surveillance du produit et des SMS des fournisseurs de servicesAssurer un SSP opérationnel qui exige que les États effectuent des fonctions précises, y compris l'adoption d'une législation, de réglementations, de politiques et de directives pour soutenir la fourniture sécuritaire et efficace de produits et de services d'aviationComprendre le besoin d'établir et de maintenir une base de données de sécurité qui peut être utilisée pour soutenir une analyse des données sur la sécuritéComprendre que la sécurité est maintenant centrée sur les données et que l'approche prescriptive actuelle envers la sécurité est élargie et accompagnée d'une approche basée sur le rendement | éléments d'orientation sur le SSP et le SMS dans le Manuel de gestion de la sécurité, doc. no 9859Objectifs, exigences et mise en oeuvre du SSPCadre de travail de SSP de l'OACI- Politique et objectifs de sécurité de l'État- Gestion des risques pour la sécurité de l'État, assurance sécurité- Promotion de la sécurité de l'ÉtatL'approche à quatre étapes de la mise en oeuvre d'un SSPProduction de rapports et mesures du rendement d'un SSPNiveau acceptable de sécurité (ALoS) et rendement à un ALoS (ALoSP)- Mesure du rendement en matière de sécurité (SPM)Bases de données de sécurité pour soutenir l'analyse des données sur la sécuritéProtection des données et de l'information sur la sécurité et des sources reliées dans le cadre du SSPLe SSP et l'ALoSP de la compagnie aérienne | |
| Système de management de la sécurité | 40H | Comprendre les exigences et concepts de la Gestion de la SécuritéPouvoir identifier les dangers et gérer les risques de sécuritéAméliorer la performance de sécurité d'une organisationSavoir définir une politique et des objectifs de sécurité | Fondamentaux de SM - Le concept de sécurité - L'évolution de la sécurité- Causalité des accidents- Personnes, contexte et sécurité- Erreurs et violations- Culture de sécurité- Le dilemme de la gestion- Gestion du changement- Intégration des systèmes de gestion- Comptes rendus et investigations sur la sécurité- Collecte et analyse des données sur la sécurité & SPIs- Identification des dangers et évaluation des risquesSARP SM - Annexe 19-2 - Spécifications relatives à la gestion de la sécurité par les États (A19-2, C3, App 1)- Système de gestion de la sécurité (A19-2, C4, App 2)- Collecte, analyse, protection, partage et échange de données de sécurité et d'informations sur la sécurité (A19-2, C5, App 3)Mise en oeuvre du SMS - Organisation et responsabilité des SMS- Analyse des écarts SMS- Mise en oeuvre du SMS- Intégration du SMS- Manuel et regsitres du SMS- Comité de SMS et administration- Politique et objectifs de sécurité- Plan d'intervention d'urgence- Identification du danger- Atténuation des risques de sécurité - Gestion du changement- Compte rendu et enquête- Traitement et Analyse des données- Indicateurs de performances de sécurité- Niveau acceptable de performances de sécurité - Politique et procédures disciplinaires- Programme de formation du SMS- Partage et échange d'informations sur la sécurité- Vérifications internes et externes du SMSDéveloppement SPI & ALoSP - Rassembler les SPI potentiels - Sélectionner le paquet SPI- Développer des graphiques SPI- Incorporer les paramètres d'alerte SPI et les paramètres des objectifs- Surveiller les performances de chaque SPI - Quantifier les performances des SPI en paquet- Établir et atteindre ALoSP | OUI |
| Système de management de la qualité | 40H | Comprendre :<br>Les enjeux d'un système de management de la Qualité<br>Les concepts et définitions liés au Système de Management | Les principes de base du SMQ<br>Le champ d'application de la norme ISO 9001<br>Approche processus et amélioration continue<br>Les grandes phases dans un processus de certification ISO 9001<br>Planifier et mettre en œuvre le SMQ<br>Evaluer la performance et améliorer le SMQ | OUI |

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| | | de la Qualité<br>Appréhender le management de la qualité selon la norme ISO 9001<br>La démarche pour la planification, la mise en oeuvre et l'évaluation d'un SMQ<br>Les outils nécessaires à la mise en place d'un SMQ<br>Les exigences relatives aux SMQ<br>Les démarche et l'amélioration continue des performances | | |
| Facteurs humains | 40H | Permettre aux participants d'assurer desfonctions de surpervision en tenant compte des aspectsFacteurs humains dans les différentes activités. | IntroductionLa performance humaine et ses limites Psychologie socialeFacteurs influencant la performance Environemment physiqueEnvironnement de travailCommunicationErreurs humainesDangers sur le lieu de travail | OUI |
| Technique d'audit/inspection | 40H | Comprendre le cadre normatif et acquérir les techniques de conduite d'audits, identifier les compétences et qualités d'un auditeur/inspecteur et passer en revue le processus d'accréditation/habilitation des inspecteurs. | Introduction Cadre normatif<br>Objectifs de l'audit<br>Communication efficace<br>Activités d'audit<br>- Notification de l'audit/inspection<br>- Préparation/customisation des listes de vérification<br>- Préparation du programme de déroulement de l'audit/inspection<br>- Conduite de l'audit et des réunions d'ouverture et de clôture<br>- Tenue des réunions de débriefing des membres de l'équipe d'audit/inspection<br>- Rédaction des fiches de notification de constatations et de recommandations ainsi que le rapport de synthèse<br>- Préparation du dossier à soumettre au DG de l'AAC en vue de sa notification à l'organisme audité/inspecté<br>- Examen,validation et suivi jusqu'à clôture du plan d'actions correctrices soumis par l'organisme audité/inspecté<br>Exercices pratiques<br>-De la préparation au suivi du plan d'actions correctrices | OUI |
| Résolution des problèmes de sécurité | 40H | Comprendre les exigences relatives à l'identification et la résolution des problèmes de sécurité figurant dans les documents de l'Organisation de l'Aviation Civile Internationale (OACI) ainsi que leur transcription dans les règlements aéronautiques nationauxMaîtriser les procédures et processus recommandés par l'Organisation de l'Aviation Civile Internationale (OACI) pour l'identification et la résolution des problèmes de sécuritéElaborer et mettre en œuvre des outils d'identification et de résolution de problème de sécuritéElaborer / évaluer | IntroductionCoordination de la sécuritéPrincipes d'identification de problèmes de sécuritéEvaluations de la sécuritéEtudes aéronautiques & ExemptionsMesures d'applicationPolitique et procédure de résolution de problèmes de sécuritéEvaluation de la formation | OUI |

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| | | des études aéronautiques, demandes d'exemptions, mesures d'application, limitations, restrictions opérationnelles | | |
| 123 Base sûreté | 40H | Comprendre la nature des menaces à l'encontre de l'aviation civile<br>Travailler dans un aéroport et vous y déplacer en sécurité<br>communiquer et coopérer avec d'autres services<br>Reconnaître les armes, les explosifs et les articles interdits<br>Comprendre les concepts de filtrage et de fouille des personnes et des bagages<br>Réagir aux situations d'urgence à l'aéroport | Introduction<br>Notions de base de la sûreté de l'aviation civile<br>travailler à l'aéroport<br>Contrôle de l'accès des personnes<br>Procédures de sûreté a l'enregistrement<br>Reconnaissance d'engins explosifs et d'autres articles règlementés<br>Filtrage et fouille des personnes et de leurs sacs/bagages<br>Protection des aéronefs stationnés<br>Sureté coté ville | OUI |
| Responsabilités administratives civiles et pénales | 72H | Fournir des informations sur les droits et obligations applicables au personnel de supervision | Notions générales des Droits de l'homme<br>Organisations et compétences judiciaires<br>Droit pénal général<br>Droit pénal spécial<br>Procédure pénale<br>Criminologie<br>Techniques d'enquête criminelles<br>Rédaction des Procès-verbaux<br>Travaux pratiques | OUI |
| C. Formation initiale de spécialisation | | | | |
| ICAO Government Safety Inspector – GSI AIR ou équivalent (Formations de certification et de surveillance continue des exploitants aériens – volet navigabilité et Formations de certification et de surveillance continue des organismes de maintenance) | 15/112H | the attendees will be able to:Evaluate a Perspective Operators Pre-Assessment Statement Form;Identify Pre-Application Meeting Objectives;Review a mock AMO formal application and identify formal application meeting objectives;Evaluate portions of an applicant's Maintenance Procedures Manuals (MPM) and identify unacceptable errors;Evaluate an applicant's training curriculum and determine if initial approval can be granted;Evaluate the results of a main base inspection and determine inspector actions;Complete a mock AMO certificate and Standard Operating Procedures (SOPs) and identify items that must be included in the certification report;Evaluate narrative and reference statements;Evaluate and excerpt from a mock | IntroductionCourse OverviewICAO ObligationsPre-Application Phase - AMOFormal Application Phase – AMODocument Evaluation Phase: Statement of Compliance – AMODocument Evaluation Phase: AMO Procedures Manual – AMODocument Evaluation Phase: Maintenance Procedures and the Quality System – AMODocument Evaluation Phase: Training Programme – AMODemonstration and Inspection Phase – AMOCertification Phase – AMOPre-Application Phase – Air OperatorFormal Application PhaseDocument Evaluation Phase: Maintenance Control Manual – Air OperatorDocument Evaluation Phase: Maintenance Programme – Air OperatorDocument Evaluation Phase: Minimum Equipment List – Air OperatorDemonstration and Inspection Phase: Aircraft and Equipment – Air OperatorDemonstration and Inspection Phase: Facilities – Air OperatorDemonstration and Inspection Phase: Demonstration Flights – Air OperatorCertification Phase – Air Operator | OUI |

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| | | operator's Maintenance Control Manual;Evaluate a mock operator's proposed Minimum Equipment List (MEL) and identify Configuration Design Limitations (CDL);Evaluate an inspection report from a mock operator's conformity inspection;Identify recommendations involving inspector observations/reports of demonstration flights; andComplete a mock operator's certificate and SOPs and identify items to include in the certification report. | | |
| Approbations opérationnelles spécifiques (RVSM, EDTO, LVO, LVP, MNPS, PBN, EFB) – aspect navigabilité | 10J | Comprendre le concept d'opérations d'exploitation spécifique et maitriser leur processus d'autorisation/approbation Ce cours décrit le processus d'approbation des opérations spécifiques suivantes :▪ RVSM▪ EDTO▪ LVO/LVP▪ EFB▪ MNPS▪ PBN | 1. RVSM▪ Historique▪ Approbation opérationnelle RVSM ▪ Documents techniques▪ Conclusion2. EDTO▪ Introduction au concept▪ Approbation opérationnelle ▪ Opérations en vol▪ Maintenance▪ Conclusion3. LVO/LVP (CAT II/CAT III) ▪ Concept▪ Concept▪ Réglementation▪ Infrastructures aéroportuaires▪ Eligibilité de l'aéronef▪ Qualification du personnel navigant technique ▪ Approbation de l'exploitant4. EFB▪ Introduction au concept▪ Description de l'EFB▪ Approbation opérationnelle ▪ Conclusion5. MNPS6. PBN▪ Processus d'approbation opérationnelle ;▪ Eligibilité des aéronefs ;▪ Procédures opérationnelles et formation des équipages ;▪ Base de données de navigation ;▪ Demande d'approbation PBN et documentation ;▪ Processus simplifié ;▪ Vols océaniques et les vols continentaux dans les zones▪ Spécifications en croisière pour les vols continentaux ;▪ Spécifications dans les zones d'approche TMA;▪ Spécification RNP APCH ;▪ Spécification RNP AR APCH. | OUI |
| Immatriculation des aéronefs (Aircraft Registration) | 1J | The course provides a general overview on the matter for newcomers. It also delivers some in-depth information for specialists and highlights the reason for certain topics to be covered during registration of an aircraft. | ICAOAirworthiness (Initial and Continuing)Operational RequirementsObjectivesLegal basisProcess of registrationRegistrationAirworthinessNoiseRadioInsuranceEmergency Locator TransmitterOperation SpecificationsDe-registrationExport Certificate of AirworthinessChange of Ownership | OUI |
| Programme d'entretien (Aircraft maintenance program) | 2J | Familiarise candidates with TC Holder processes relating to maintenance programme (MP) developmentProvide an explanation of the principles underlying the TC processes, including maintenance steering group analysis, certification maintenance requirements, design requirements relating to scheduled maintenanceFamiliarise candidates with the processes associated with operator management of maintenance programmes | Introduction. A brief introduction to the international standards and regulations; the regulatory structure in the States relating to maintenance programmes based on European regulations; the continuing airworthiness requirements issued by EASA related to maintenance programmes; and continuing airworthiness management of an aircraft.Design Related Scheduled Maintenance Requirements. This module is intended to introduce the candidate to the processes which in the course of Type Certification, may lead to the development of scheduled checks and inspections necessary to maintain the type certification standard of the product, including the ALI's /CMR's /AD's etc.Maintenance Steering Group Analysis. The maintenance and inspection standards necessary to the economic viability as well as the essential airworthiness of the aircraft are derived during this process and as such this module is highly relevant to planners, technical services engineers, inspectors, managers and mechanics: an understanding of the concepts are equally relevant to the quality audit personnel who are required to audit the maintenance standards themselves. In this part the principles of the MSG-2 and MSG-3 | OUI |

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| | | including escalation and optimisation, component off-wing programmes, alignment checksFamiliarise candidates with the documents necessary for the effective management of maintenance programmes including the MRB report and MPDProvide an explanation for and illustrate the significance of the interactions between design requirements, maintenance programme development, maintenance standards and inspection standardsFamiliarise candidates with reliability programmes | philosophy will be discussed.In-Service Management of Maintenance Programmes. In respect of the airworthiness management task which requires operators to review the effectiveness of their maintenance programme on a regular basis: the economic issues cannot be easily isolated from safety issues however and this module endeavours to provide guidance in this area. In this module the following items will be addressed in detail:MRB/MPD, Sampling programs, Maintenance Scheduling Concepts (Block/Equalized/Flexible).Customization of the Maintenance programme, Bridging checks and low utilization maintenance programme and Escalations.Reliability Programmes. This module is intended to describe the principle processes associated with reliability programmes. The potential problems associated with the management and interpretation of the programmes are discussed and explored and the important issues associated with effective data management are also highlighted. The principle characteristics of effective reliability programmes are highlighted. | |
| Liste minimale d'équipements de référence/liste minimale d'équipements (MMEL/MEL) | 1J | Understand the regulatory background applicable to the MMEL/ MEL<br>Be able to explain the philosophy and purpose and role of the MEL<br>Understand the requirements related to maintaining validity of the MEL<br>Satisfy the requirements related to MEL competence<br>Be able to interpret the MEL content in the context of multiple aircraft defects<br>Understand the Minimum Equipment List restrictions<br>Be able to assess the MEL complies with the Aircraft Configuration<br>Understand the Operators MEL Procedures.<br>Understanding MEL ownership and relationship to certification standards. | Abbreviations & Terms<br>- MMEL Regulatory Background and compliance with ICAO<br>- Considering MEL Related Events & Issuers<br>- MEL Regulatory Background EASA<br>- MEL Regulatory Background FAA<br>- MMEL Introduction<br>- MEL Purpose / Philosophy and Regulatory Intent<br>- MEL Structure<br>- MEL Development & Certification<br>- MEL Sources, Aircraft Configuration and STC Impact<br>- MEL Airworthiness & Operations<br>- Considering MEL Operations Procedures<br>- MEL Restrictions & Deferment Process<br>- MMEL /MEL Amendments | OUI |
| Modifications et réparations majeures | 3J | To provide attendees with an overview of Aircraft Maintenance Program obligations related to Continuing Structural Integrity Programme including Functional Elements and techniques to deliver effective oversight. | IntroductionDefinitions and AcronymsThe Beginning of EASA / FAA Joint CertificationCertification and Approval Process FAA /EASAThe EASA Certification ProcessThe FAA Certification Process ConsiderationsFAA & EASA Part 21 Aircraft Repair ConsiderationsDesign Aspects of AirworthinessEASA Modifications Minor & MajorIntroduction Role & Purpose of an STCSupplemental Type-Certificates and Modifications ImplementationStructure General IntroductionCS 25 Structural – Crashworthiness ConsiderationsStructural Integrity & Ageing Aircraft Structures and SystemsCS 25 – Safety Assessment CS25-1309Part 21 Subpart M – RepairsRepair Evaluation Guidelines (REG) and Repair Assessment Programme (RAP)Limit of Validity (LOV) of the Maintenance Programme and Evaluation for Widespread Fatigue Damage (WFD) | OUI |

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| Inspection sur l'aire de trafic (SAGA, SANA, SAFA) | 4J | Fournir aux participants une connaissance appropriée sur le fond et les antécédents du programme SAFA (historique, dépositaires, but, utilisation...),<br>Fournir aux participants une connaissance en profondeur sur les procédures d'inspection au sol SAFA, pour permettre aux Autorités de mettre en application un programme semblable<br>Fournir des connaissances techniques en profondeur aux participants au respect des items inspectés et des écarts les plus communs identifiés, par la présentation de chaque item de la checklist<br>Présenter sur le terrain, les procédures européennes réelles d'inspections SAFA sur un(des) exercice(s) d'entraînement pratique,<br>Réaliser en tant qu'observateur des inspections SAFA en environnement réel | 1. Qualification des Inspecteurs au Sol<br>2. Préparation de l'Inspection<br>3. Procédures d'Inspection<br>Check-list inspection items – Flight Deck / Documentation<br>Check-list inspection items – Cabin<br>Check-list inspection items – Aircraft Condition<br>Check-list inspection items – Cargo<br>4. Identification des Ecarts<br>5. Suivi des Actions<br>Base de données SAFA<br>6. Divers | OUI |
| **2. FORMATION AVANCEES ET SPECIALISEES** | | | | |
| Marchandises dangereuses cat 6 | 40H | - Comprendre les principes généraux et les spécifications de la réglementation en matière de marchandises dangereuses- Sensibiliser et familiariser les inspecteurs AIR aux risques inhérents sur le transport aérien de marchandises dangereuses- S'assurer que les marchandises dangereuses sont transportées en toute sécurité- Comprendre et de maitriser le processus de délivrance desautorisations et certificats en matière de marchandises dangereuses | Champs d'applicationRestrictions ClassificationindentificationEmballageMarquages à spécifications ONU Marque et étiquetageDocumentationExemple d'expéditionRécapitulatif : Batteries au Lithium | OUI |
| Surveillance des operations de location d'aéronefs (Oversight of Aircraft Leasing Operations) | 40H | The attendee will be able to :<br>• Develop processes and procedures to recognise, accept, approve and oversee operations with different cases of aircraft leasing arrangements.<br>• Implement oversight | Evaluating air operator leasing arrangements application<br>- Types of leasing arrangements<br>- Responsibilities of State of registry and the State of operator with different types of leasing arrangements<br>- Requirements and conditions for acquiring a leasing arrangement<br>- Schedule of events and fees associated with leasing arrangements<br>- Application of Article 83 bis for transfer of responsibilities | OUI |

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| | | procedures for different cases of aircraft leasing arrangements.<br>• Identify various categories of aircraft leasing and their implications on States and AOC holders' responsibilities with respect to personnel licensing, aircraft operations and airworthiness.<br>• Identify necessary regulations and procedures to ensure compliance with Chicago Convention and its Annexes for various cases of aircraft leasing. | Approving proposed air operator leasing arrangements<br>- Suitability of different types of leasing arrangements for AOC holders<br>- Flight operations and licensing technical documentation, and airworthiness technical documentation required for review<br>- Operational arrangements and maintenance operations required for inspection/demonstration<br>- Verification of Lease agreement and supporting documents<br>- Steps for approval of proposed leasing arrangement<br>Surveillance of air operator leasing arrangements<br>- Types and frequency of inspection required<br>- Standard procedures for conducting operations inspection<br>- Process for resolution of safety issues | |
| Règlementation des systèmes d'aéronef sans pilote (Unmanned Aircraft Systems Regulations) | 8H | An overview of the regulatory framework from ICAO Development of regulationsUAS platforms, their capabilities and deficienciesAccommodating UAS operations within the current aviation infrastructureTypical use casesThe requirement for the operator to demonstrate flight safety and how this is achievedImplementation of technology to help control risks and hazardsProvision of an environment for safe operation | An overview of the regulatory framework from ICAODevelopment of regulationsUAS platforms, their capabilities and deficienciesTypical use casesThe requirement for the operator to demonstrate flight safety and how this is achievedImplementation of technology to help control risks and hazardsProvision of an environment for safe operation (u-space) | OUI |
| Qualification/Familiarisation générale (GenFam) sur type aéronef (en fonction de la flotte de la RDC) | 45J/5J | Familiariser à un type d'aéronef dans le but de le superviser.<br>Ce module de la formation initiale a été conçu pour donner des connaissances de bases sur les principaux systèmes d'un type ainsi que les bonnes pratiques de maintenant s'y afférant. | Ce module porte sur les points suivants :<br>- Description des principaux systèmes :<br>▪ Cellule ;<br>▪ Moteur ;<br>▪ Electricité & avionique ;<br>- Précautions de sécurité propres au type d'aéronef ;<br>- Pratiques de maintenance, outils spéciaux et équipements de test spécifiques au type d'aéronef. | OUI |
| Systèmes avioniques (GPS System, Mode S transponder/TCAS, GPWS, Weather Detection Equipment, Flight Data Recorders, Cockpit Voice Recorders, EFIS/EICAS, ...) | | | | OUI |
| Introduction à la certification des aéronefs lourds (CS-25 Large Aeroplane Certification) | 4J | provide the attendee with a basic understanding of the typical certification challenges when performing changes on Large Aeroplanes | Regulatory Background (ICAO, JAA, FAA, EASA)o Working with EASAo EASA Part 21 Certification Processo CS-25, CS-AWO , FAR-25 and relation to each othero Classification of changeso Reading and understanding a Type Certification Data Sheeto Changed Product Rule (CPR)o Type Certification Basiso System Safety AnalysisSystems and Avionicso CS 25 Subpart Fo Common AMC Material and other related | OUI |

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| | | | certification Guideso Cockpit arrangemento Typical certification challengeso Enhanced Airworthiness Program for Aeroplane Systems and how does it affect us.Cabin:o Refurbishment and LOPA changeso Cabin Topicso Crashworthiness Handbook and topicso FlammabilityStructureo General Introductiono Introduction, Fatigue and Damage Tolerant, CrashworthinessCertification Topicso Certification Programo Compliance showingo Configuration controlo Sampling for tests, guidance material availableo Flight Manual Supplementso Instruction for Continued Airworthiness (ICA)Other related Topicso RTCA and EUROCAE Documents such as ED-14, DO-160, DO-178, etc.o HIRF and Lightning Certification.o OEM provided Documentationo Other standards such as SAE, MIL etc.o Certification Programo Flight Testingo Conditions for flight/Permit to Flight | |
| Gestion du maintien de la navigabilité des aéronefs lourds (Continuous Airworthiness Management for Large Aircraft) | 2J | The course introduces the delegates to the Regulatory Background, Roles & Responsibilities associated with the Continuing Airworthiness Management of Large Aircraft.The attendees will- achieve a solid understanding related to the role of Continued Airworthiness Management (CAM)- be able to engage in a more practical way with Part M Functionality and to avoid or mitigate problems- be able to use the regulation to proactively manage the Continuing Airworthiness (CA) of your aircraft- Understand the activities which support the analysis of Safety Data including SB's and AD's- Understand the purpose of STC's and how they are integrated into the maintenance Program- Understand the roles and responsibilities within the various CAMO groups including Reliability, Technical Records, Engineering, & Maintenance Planning | IntroductionAbbreviationsRegulatory StructureEASA Part 145 OverviewContinuous Airworthiness - The Role of Part MAirworthiness Principles & Continuing AirworthinessContract & Subcontract Management Organisations Approval RatingsSMS In a CAMO EnvironmentManaging Competencies in a Part M EnvironmentPart M Subpart B - AccountabilityPart M Subpart C - Continuing AirworthinessMSG-3 and the introduction of the Zonal Inspection ConceptApproved Maintenance ProgramConsidering Different types of Inspection GVI / DVI / SIInstructions For Continuing AirworthinessAirworthiness Limitations & Certification Maintenance TasksGeneral Introduction to all Part 21 SubpartsSupplemental Type Certificates (STC)The Difference Between STC and PMATSO / ETSO IntroductionManagement of EASA Approved Mods and RepairsAD, Modification and STC ConsiderationsMaintenance Oversight and Compliance with FAR 25 / CS 25ACAM Key Risk Elements ReviewTemporary Extension and Escalation / De-EscalationHow good are your Corrosion Control assessment and Maintenance Procedures? | OUI |
| Système d'interconnexion de câblage électrique (Electrical wiring interconnection systems - EWIS) | 1J | The attendees will be able to:give a simple description of the historical background and the elements requiring a safety consideration, using common words and showing examples of non-conformities,apply typical terms used in EWIS and be familiar with the basic elements of the practical application of EWIS issues. | Safe handling of Aeroplane Electrical SystemsLine replaceable units (LRU)ToolingTroubleshooting procedures and electrical measurementConstruction and navigation of typical aeroplane wiring system overhaul or wiring practices manualsTypes of inspectionHuman factors in inspectionsZonal areas and typical damageContamination sources, materials, cleaning and protection proceduresCorrect identification of different wire typesInspection criteria and damage toleranceRepair and preventative maintenance proceduresProcedures to identify, inspect and find the correct repair for common types of connective devices found on typical aeroplanes Procedures for replacement of all parts of common types of connective devices found on typical aeroplanes | OUI |
| Sécurité des réservoirs de carburants (Aircraft fuel tank safety - FTS) | 1J | To understand the concept of fuel tank system ALI and CDCCL | Abbreviations<br>- FTS – Background: the explosions of mixtures of fuel and air, the behaviour of those mixtures in an aviation environment, the | OUI |

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| | | | effects of temperature and pressure, energy needed for ignition etc, the 'fire triangle'<br>- Regulatory Overview: SFAR 88 (Including requirements relating to CDCCL) of the FAA and JAA Interim Policy INT POL 25/12: ignition prevention program initiatives and goals, to identify unsafe conditions and to correct them, to systematically improve fuel tank maintenance), JAA Temporary Guidance Leaflet TGL 47.<br>- Basic elements of the fuel tank safety: Understanding of the background and the concept of fuel tank safety, Interpreting ICAW Instructions for continuing airworthiness.<br>- Case Studies Accidents & Incidents<br>- The need for Mitigation Strategies: Ignition source prevention.<br>- FRS - Flammability Reduction Systems when installed: reason for their presence, their effects, the hazards of an FRS using nitrogen for maintenance, safety precautions in maintenance/working with an FRS.<br>- Recording & Reporting – The Link to SMS | |
| Masse et centrage d'aéronef (Aircraft weight and balance) | 40H | Summarize the basic principles of flight, related to aircraft weight and balanceRecognize the terms used in the fieldIdentify the various weights used in the compilation of a load sheetAnalyze the use of indexes and % Mean Aerodynamic Chord (MAC)Recognize the design of trim and table charts | Basic theory of flightAircraft weights and indexes at different flight stagesInitial aircraft weights and indexesAircraft operating and structural weightsAircraft limiting weightsTheory of balanceBalance theory applied to aircraftDrop line trim chart and its functionThe manual load/trim sheet and the standard IATA EDP Load/trim sheet compilation | OUI |
| Programme de fiabilité des aéronefs (Aircraft reliability program) | 2J | The attendee will be able to :<br>demonstrate an understanding of reliability programmes necessary for the maintenance programme for MSG-3 aircraft<br>understand the responsibilities of the actors in initial and continuing airworthiness, the basic mathematical principles in relation to reliability, and the relationship between the time to failure distribution, the reliability function, and the hazard rate.<br>understand the meaning of escalation programmes, and be able to set up an escalation package. | Regulatory requirements<br>Concept of Reliability centered maintenance/MSG 3<br>Theory on Statistical methods and Failure distribution functions<br>Development of Maintenance Programme<br>The types of reliability analysis required for an effective programme<br>Administration and Management of the Reliability Programme<br>Key Elements of a Reliability Programme<br>Escalation of maintenance tasks<br>Small Fleet Reliability<br>Approval of the Reliability Programme | OUI |
| Analyse des données de vol (flight data monitoring ) | 2J | To provide the delegates with a strong understanding of the regulatory requirements, operational processes and practical implementation of a FDM/FDA programme fully compliant with ICAO SARPS | IntroductionAcronyms and AbbreviationsDefinitionsRegulatory RequirementsObjectives of an Operator's – FDMFlight Data Monitoring (FDM) Gap AnalysisIntegrating Flight Data Monitoring into the Safety Management System (SMS)How the Operator uses an FOQA /FDM Program – BenefitsImplementing FOQA /FDM ProgramFlight Data Analysis Equipment RequirementsFDM Roles and Responsibilities within the AOCDeveloping FDM ProceduresEstablishing event trigger limitsDe-identifying DataHow to Review Caution and Warning EventsWhat Actions are Taken from the Cumulative Event Data | OUI |

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| Surveillance des tendances du moteur (Engine trend monitoring – ETM) | 1J | Develop a deep understanding of the elements related to ECTM. To be able to develop and Manage and Effective ECTM process within your organisation. | Obligations under the Chicago Convention<br>ICAO SARPs<br>ICAO Organisation Structure<br>Expanded ICAO Universal Safety Oversight Audit Programme<br>Processes and Audit Results<br>Establishment and Management of the Safety Oversight System<br>ICAO Safety Audit Oversight Ma | OUI |
| Gestion des risques liés à la fatigue (Fatigue Risk Management Systems - FRMS) | 2J | – To understand the exposure, implementation challenge and effective management of a Fatigue Risk Management System.– To achieve a deep understanding of the associated regulations and requirements, in particular how an FRMS integrates within the organisations SMS.– To understand the tools and mechanisms for gathering and analyzing FRMS data within the Maintenance Repair Organisation ( MRO).– To consider best practice development of an effective reporting policy. | IntroductionContentsTerminology and AbbreviationsFRMS – How to Assess your Organisations StatusIntroduction to the Concept of Fatigue Risk Management SystemsScience of Sleep and Foundations of FatigueUnderstanding the challenge of migrating from a Compliance Based FRMS to a Performance Based FRMSConsidering the Challenge of Developing an Open and Effective Reporting CultureConsidering the Steps to Implement an Effective FRMS within your Organisation Integrating FRMS within an SMSFRMS Systematic ManagementFRMS DocumentationFRMS TrainingPromotion of FRMS within the context of a "Culture of Trust"Performing a "Gap Analysis" or "Full Audit" of an FRMSCourse Close Debrief and Review | OUI |
| Aircraft Inspection Techniques | 2J | To provide a detailed understanding of the best practice aircraft maintenance inspection techniques in a relevant and practical way.<br>To develop a detailed awareness regarding the need for effective aircraft maintenance inspection in all areas of Maintenance including Airframe, Engines, and Structure. | Introduction - The Importance of Aircraft Inspection<br>Abbreviations<br>Airworthiness Inspection - The Role of Part 145 B1& B2 Certifier<br>Introduction to MSG-3<br>Considerations Related to MSG-3 Aircraft Inspection Standards<br>Considering Inspection Tooling use and Maintenance & Human Factors Related to Inspection Activities<br>Causes of Corrosion<br>Types of Corrosion<br>Corrosion Prevention Control Program CPCP Review<br>How good are your Corrosion Control Assessment and Maintenance Procedures?<br>Aircraft Fuel Tank Microbiological Concerns<br>Considering Different types of Inspection GVI / DVI / SI<br>Performing an Effective Aircraft Maintenance Inspection<br>Inspection Performance & Staff Competence<br>Development of Competence related to Practical Inspection Training<br>Inspection Processes related to Engines<br>Composite Damage Inspection and Tolerances<br>Tapping Inspection<br>General Guide to Effective Aircraft Inspection | OUI |
| Planification de la production – gestion et surveillance (Production Planning Management and Oversight) | 1J | To achieve a detailed understanding of the regulatory environment related to EASA Part 145 Production PlanningBe able to explain the roles and responsibilities related to the interface between Maintenance and Production Planning.Be able to explain and promote a comprehensive understanding of the role of Production Planning in particular to include all the | AbbreviationsMaintenance Planning overviewThe Basics of Maintenance Planning-The Approved Maintenance ProgramRegulatory OverviewPost Holder Responsibilities and RelationshipsManaging CompetenciesAviation Quality Systems Pt 145Understanding the Quality Control Process in Production PlanningAccidents and Incidents the link to Safety - Human Factors and Production PlanningContinuing Airworthiness Part M – Part 145 Interface And ResponsibilitiesProcedures Information and PracticesContract & Subcontract ManagementThe Role of SMS in Production Planning | OUI |

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| | | fundamental activities. Production Planning Environment.To achieve an understanding regarding industry best practice techniques to deliver efficiencies as well as effective Production Planning.To be able to promote an understanding the Role of Safety Management Systems both within base maintenance in general as well as in the area of Production Planning particularlyUnderstanding the various challenges which face an organisation to optimise the Production Planning Process.Identify Specific issues which are both organisational and Industry specific. | | |
| Procédures de gestion et d'inspection des magasins (Stores Management & Inspection Procedures and Processes) | | a) Understand the processes which drive effective management of a Part 145 Compliant Tool Store.<br>b) Understand the process of managing documentation related to airworthiness and tooling and calibration control.<br>c) Understand the principles of Electrostatic Inspection.<br>d) Have confidence in full compliance within the supply chain and the ability to perceive opportunity to improve & develop the Tooling Store | Abbreviations & Terms<br>EASA Part 145 Tooling Store General Introduction<br>Introduction to Aircraft General Tooling<br>Considerations Related to Part 145 Aviation Tooling Control<br>Annual & Periodic Tooling Inspection<br>Stores Tooling & Equipment Issue and Return Inspection Requirements<br>Tooling Calibration Management & Control Process<br>Introduction to Foreign Object Debris (FOD) – Foreign Object Damage<br>Introduction & Awareness Electrostatic Sensitive Discharge<br>Best Practice House Keeping, Cleanliness and Safety<br>The Use & Control of Alternate Tooling | OUI |
| Enregistrements techniques d'aéronef (Aircraft Technical Records) | 2J | Understand the role of Technical Records within the CAMO group and 145 organisation Understanding how an effective technical records system can protect asset valueUnderstand the regulations which drive both Part M and Part 145 Technical Record RequirementsBe able to explain the concept of Airworthiness and the need for Continuing Airworthiness RecordsAchieve an awareness of both requirements and best practice related to the management of Aircraft Technical Records Minimise the likelihood of error due to lack of | Fundamentals of Continuing Airworthiness Aircraft Certificates & PermitsContinuing Airworthiness RecordsMaintenance Records Records Documentation & Control Requirements | OUI |

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| | | understandingPrepare for working in a technical records environmentUnderstand the need for Self-Monitoring Procedures (SMP) and the role of Quality Control within the Technical Records Environment | | |
| Programme de prévention et de contrôle de la corrosion des aéronefs (Aging Aircraft - Corrosion Prevention and Control Program) | 2J | The attendees will :- have a comprehensive understanding of methodology to ensure compliance with Continuing Structural Integrity Programme-understand the Roles and responsibilities associated with the management of Corrosion Protection and Control Program (CPCP) and relationship with MSG-3- be able to effectively assess both the regulatory compliance and suitability of operators' Maintenance Programs-be able to use the regulation to proactively manage the oversight of regulatory compliance related to the CPCP control processes-Understand the activities which support the analysis of Safety Data including SB's and AD's | Definitions and AcronymsContinuing Structural Integrity – IntroductionWhat are Supplemental Structural InspectionsCauses of Corrosion -Types of CorrosionCorrosion Prevention Control Program CPCP ReviewCorrosion Prevention and Control Programme (CPCP) Requirements FAA / EASABaseline CPCPConsidering CPCP AD'sCPCP Incorporation into the AMPHow good are your Corrosion Control Assessment and Maintenance Procedures?Aircraft Fuel Tank Microbiological ConcernsSupplemental Structural Inspection Programme (SSIP)Service Bulletin Review and Mandatory Modification ProgrammeRepair Evaluation Guidelines (REG) and Repair Assessment Programme (RAP)Limit of Validity (LOV) of the Maintenance Programme and Evaluation for Widespread Fatigue Damage (WFD)Considerations Related to MSG-3 Aircraft Inspection StandardsConsidering Different types of Inspection GVI / DVI / SIPerforming an Effective Aircraft Maintenance InspectionInspection Performance & amp; Staff CompetenceSupplemental Type-Certificates and Modifications ImplementationGuidelines for the development of a corrosion control programmeGuidelines for the development of an SB review and mandatory modification programme | OUI |
| Control non destructif (Non destructive test - NDT) | 4J | Describe a systematic NDI evaluation process that can be utilized by the ASI in performing job functions relating to NDI.<br>Apply the systematic NDI evaluation process to ASI job functions using the NSI checklist.<br>Identify NDI methods and describe their application on aircraft material and components.<br>Apply the NDI checklist to evaluate the application of NDI methods to aircraft materials and components | • The Certification Process<br>• Visual Inspection<br>• Penetrant Inspection<br>• Magnetic Particle Inspection Eddy Current Inspection<br>• Ultrasonic Inspection Radiographic Inspection<br>Audit/Evaluation and Surveillance | OUI |
| Plan d'intervention d'urgence (Emergency réponse plan - PIU/ERP) | | The attendee will be able to:<br>Describe your company responsibilities within the regulatory framework governing emergency management<br>Describe the stages in the planning required for effective emergency management and recovery | What can be seen as an emergency?<br>What can be seen as a crisis?<br>Why create an ERP?<br>Regulatory background of ERP<br>Steps in the planning process<br>Emergency management roles and responsibilities in the organization<br>Determination of internal and external stakeholders<br>Effective leadership during a crisis situation<br>Scaling down and re-establishing operations following an emergency response<br>Emergency response training and exercise | OUI |

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| | | Implement an Emergency Response Plan<br>Identify the skills required is an emergency response situation<br>Ensure ERP training and exercises are performed in your organization<br>Understand the relationship between SMS and ERP. | Situation room and call center<br>Crisis communication<br>Real life cases are presented as learning experience | |
| Familiarisation aux enquêtes sur les accidents et incidents d'aviation | 5J | The attendee will be able to perform small scale Safety Investigations as part of a team within an Organisation | • Understanding Safety• Hazards and Risks• The process of investigation:• Planning• Collecting Data• Analysing data• Drawing Conclusions• Making Recommendations• Writing a Report | OUI |
| ICAO Government Safety Inspector – Air Cargo Certification | 5J/31H | Identify the standards and regulations required for certification and continued safety oversight of air cargo operations, and the State's responsibilities for continuing safety oversight of certificated air cargo operators.<br>Specify the requirements of an air cargo operator's manual system and applicable documentation.<br>Describe the CAA inspector's role in conducting demonstrations and inspections to ensure air cargo operations comply with applicable CAA regulations, guidance and safe operating practices.<br>Specify the requirements for approving a training programme for an operator adding air cargo transport to its operations.<br>Describe the CAA inspector's responsibilities as they apply to evaluating air cargo operations during transport of special cargo and dangerous goods.<br>Identify the major aspects of the Certification Phase for air cargo operations.<br>Describe how to prepare and issue the amended OpSpecs.<br>Identify CAA responsibilities for continuing safety oversight of air cargo operations. | Introduction<br>Fundamentals of Transporting Cargo by Air<br>Certification and Oversight of Air Cargo Operations<br>Evaluation of Air Cargo-Related Manuals and Documents<br>Training Programmes for Air Cargo Operations<br>Demonstrations and Inspections of Air Cargo Operations<br>Special Cargo and Dangerous Goods<br>Certification Documents for Air Cargo Operations | OUI |
| ICAO Government Safety Inspector – GSI PEL ou equivalent | 15J/120 H | The attendee will be able to :Establish and maintain a CAA PEL system;Obtain knowledge testing services from an outside provider;Manage a knowledge testing | IntroductionICAO Licensing ObligationsThe PEL SystemMedical Certification ProcessDesignate an Aviation Medical ExaminerExamining Principles: Knowledge, Skill, and Language ProficiencyDeciding to Develop and/or Obtain Licensing TestsConduct Application Phase: Determine Application's AcceptabilityConduct Evaluation Phase: Determine Applicant's EligibilityConduct Demonstration Phase: | OUI |

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| | | system;Evaluate a license application for completeness and accuracy;Determine if an applicant is eligible for the license sought;Administer, grade, and document the results of knowledge tests;Conduct flight crew license skill tests;Conduct maintenance technician skill tests;Determine the appropriate document to be issued based on the skill test results;Validate and convert foreign licenses; andSuspend or revoke a license. | Manage Knowledge Test AdministrationConduct Demonstration Phase: Manage FCL Skill Test AdministrationConduct Demonstration Phase: Manage AMT Skill Test AdministrationConduct Issuance Phase: Issue Appropriate DocumentValidation and Conversion of a Licence Surveillance of Licensed Aviation PersonnelCompliance and Enforcement Action | |
| Certification des organismes de formation aéronautique (Approval of training organization) | 5J/ 31H | The attendee will be able to:<br>Identify the tasks executed by CAA ATO Office;<br>Determine training activities that require ATO approval;<br>Evaluate ATO Documents;<br>Carry out Training Organization Approval Inspection; and<br>Issue the appropriate ATO approval documents. | Introduction<br>Establishment of ATO Inspector office<br>Evaluation of ATO Documents<br>Inspection and Approval of Training Organization<br>Approval of Foreign ATO | OUI |
| ICAO Government Safety Inspector – GSI OPS ou équivalent (Formations de certification et de surveillance continue des exploitants aériens ) | 14J | the attendee will be able to:<br>Evaluate perspective Operators Pre-assessment Statement forms for acceptability;<br>Identify Pre-application Meeting Objectives;<br>Conduct a cursory review of the packages and, from the review, evaluate the quality of one package and identify formal application meeting objectives for the other package;<br>Evaluate narrative and reference statements;<br>Conduct an in-depth evaluation of an excerpt from a mock Operations Manual;<br>Evaluate a sample curriculum segment from a mock operator's training programme;<br>Evaluate an excerpt of a mock operator's Cabin Attendant Manual for acceptability;<br>Evaluate a mock operator's A300 Aircraft Operating Manual for acceptability; | Evaluating a Pre-Assessment Statement<br>Conducting a Pre-Application Meeting<br>Conducting a Formal Application Meeting<br>Evaluating a Compliance Statement<br>Evaluating Operations, Training, Cabin Attendant and Aircraft Operating Manuals<br>Evaluating a Minimum Equipment List (MEL)<br>Evaluating Loading and Handling and Performance Planning Manuals<br>Evaluating Other Certification Manuals and Documents<br>Inspecting Main Base and Station Facilities<br>Inspecting Training Programs and Training Facilities<br>Evaluating Emergency Evacuation and Ditching Demonstrations<br>Evaluating Demonstration Flights<br>Issuing the Air Operator Certificate | OUI |

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| | | Evaluate a mock operator's proposed Minimum Equipment List (MEL) and Configuration Design List (CDL);<br>Verify submitted performance planning data for acceptability;<br>Evaluate an excerpt of a mock operator's Aircraft Loading and Handling Manual for acceptability and identify errors;<br>Evaluate excerpts from the mock operator's Exit Row Seating programme;<br>Evaluate the results of an inspector's main base inspection for acceptability and determine inspector actions;<br>Evaluate the inspector's observations of a training programme and facilities for acceptability and determine the correct inspector actions;<br>Evaluate emergency evacuation demonstration scenarios to determine if they were satisfactory and provide reasons for your decision;<br>Determine appropriate recommendations for scenarios involving inspector observations/reports of four demonstration flights and reasons for the recommendations;<br>Complete a mock operator's certificate and Standard Operating Procedures (SOPs) and identify items that must be included in the certification report. | | |
| Prise de décision basée sur les données d'aviation (Aviation Data-Driven Decision Making (AD3M)) | Part 1 : 1 day<br>Part 2 : 5 days | Participants who complete the AD3M Programme (Part 1 and Part 2) will be able to apply best practices of data-driven decision making in aviation and define suitable key performance indicators (KPIs) in civil aviation sectors.Upon completion of the Programme, participants will be able to apply aviation data-driven decision making principles and methods in their professional roles. | The AD3M Programme is designed to prepare aviation professionals to generate reports and interpret results for making effective decisions, managing risk and setting priorities for different civil aviation activities, operations, or procedures. The AD3M Program consists of two parts, a prerequisite online course, Part 1: Fundamentals of Aviation Data-driven Decision Making (AD3M), to explore the fundamental concepts behind data-driven decision making, followed by a classroom course, Part 2: Application of Aviation Data-driven Decision Making (AD3M), to apply the concepts to practical scenarios and real-life situations. Aviation Data-driven Decision Making (AD3M) - Part 1 - Online CourseModule 1 - IntroductionModule 2 - Data managementModule 3 - Metrics and IndicatorsModule 4 - Basic Statistical AnalysisModule 5 - Visualization and ReportingAviation Data-driven Decision Making (AD3M) - Part 2The Problem with Data- Data challenges- Data governance- Data collection/development (data quantity) - Data quality * Exercise 1.1: What Are Your Data Challenges? * Exercise 1.2.A: Challenges Related to | OUI |

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| | | | Data Governance * Exercise 1.2.B: Challenges Related to Data Governance * Exercise 1.3.A: Challenges Related to Data Quantity * Exercise 1.3.B: Challenges Related to Data Quantity * Case Study 1.4 - What Caused the Data Quality Problem? * Exercise 1.5 - Part 1: Challenges Related to Data Quality * Exercise 1.5 - Part 2: Challenges Related to Data QualityData Visualization and Reporting- Fundamentals and best practices- Misrepresentation and misinterpretation of data- Helpful Rules * Exercise2.1:SafetyAnalysis Developing Indicators- Safety indicators - an overview * Exercise 3.1: Developing Indicators | |
| Analyse des causes profondes (Root Cause Analysis) | 2J | The attendee will be able to:Summarize the problem definition processIdentify when to use which type of tools for problem definitionDescribe the principles of root cause analysisSummarize the root cause requirements and guidance under ICAODetermine the root cause(s)Describe the key concepts of a corrective action planDescribe the corrective action process | Background of RCA and the need for a structured processRelative roles and responsibilitiesThe process of RCAAn overview of the various tools and techniques in common useProblem identification, clarification and definitionDetermination of likely root causesTesting of theoriesDetermination of suitable corrective action(s)Implementation and verificationProcess analysis, data collection and display techniques | OUI |
| European Co-ordination center for accident and incident reporting systems (ECCAIRS) | 5J | The attendees will be able to:<br>- Understand ADREP taxonomy<br>- Understand reporting requirements as per ICAO Annex 13 - Aircraft Accident and Incident Investigation<br>- Understand safety data collection, analysis and exchange requirements as per ICAO Annex 19 - Safety Management and<br>- Learn to use ECCAIRS software suite to perform the above-mentioned tasks | What is ECCAIRS<br>Why ECCAIRS<br>The ADREP Taxonomy<br>The ECCAIRS Dictionary<br>Browser - Access and structure<br>Safety data input procedures<br>System queries<br>Event analysis<br>Event classification and categories<br>Other ECCAIRS applications | OUI |
| Environnement (bruit, émissions de moteur d'aviation, CORSIA) | | comprendre les mesures à prendre en compte pour la protection de l'environnement | Bruit des aéronefs<br>- Source de bruit des aéronefs<br>- Certification acoustique des aéronefs<br>- Gestion du bruit dans les aéroports<br>- Réduction du bruit dans les aéronefs<br>Emissions de moteurs d'aviation<br>- Gaz à effet de serre<br>- Réduction des émissions<br>CORSIA<br>- Introduction au CORSIA et à la résolution A39-3<br>- Présentation du système de suivi, de compte-rendu et de vérification (MRV)<br>- Unités d'émissions<br>- Registres | OUI |
| Instructeur (Training instructors course - TIC) | 5J | The attendee will be able to:Complete course preparation procedures using corresponding checklistsApply instructor competencies in the delivery of a classroom | Part 1:1. Prepare the Training Environment 2. Manage the Trainee3. Conduct a Training Module4. Prepare a Course Evaluation ReportPart 2:1. Course Introduction 2. Training Preparation 3. Training Delivery4. Training Reports | OUI |

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| | | training sessionApply the relevant methods and tools to evaluate trainees and the training course | | |
| Développeur de cours (training developers course - TDC) | 10J/60H | The attendee will be able to:<br>Conduct a preliminary study;<br>Conduct a job analysis;<br>Conduct a population analysis;<br>Design the curriculum;<br>Design the modules;<br>Establish validity and reliability of tests;<br>Establish validity of a training course. | Introduction<br>Preliminary Study<br>Job Analysis<br>Population analysis<br>Design of Curriculum<br>Design of Modules<br>Production and Developmental Testing<br>Validation | OUI |
| Instructeurs des formations en cours d'emploi (On-the-job training instructor) | 5J/30H | The attendee will be able to:<br>1. Identify individual training needs<br>2. Plan OJT sessions<br>3. Conduct OJT sessions<br>4. Assess trainee's performance<br>5. Write a training report<br>6. Evaluate an OJT program | Introduction<br>Identifying Training Needs<br>Planning OJT Sessions<br>Conducting OJT<br>Assessing Trainee's Performance<br>Evaluating OJT | OUI |
| ICAO USOAP CMA – LEG/ORG | 8 H | The attendee will be able toPart 1: Legislation (LEG) • Recognize the essential content of the protocol questions (PQs) in primary aviation legislation and civil aviation regulations and identify the more challenging PQs.• Relate the content of the PQs to the associated ICAO documents, such as the Convention on International Civil Aviation (Chicago Convention), Annexes to the Chicago Convention, and relevant guidance material.• Demonstrate the application of auditing techniques and methodology learned from this computer-based training. Part 2: Civil Aviation Organization (ORG) • Explore the essential content of the protocol questions (PQs) in the area of civil aviation organization(s)• Relate the PQs to the associated ICAO documents, such as the Convention on International Civil Aviation (Chicago Convention), Annexes to the Chicago Convention, and relevant guidance material.• Discover key information | Part 1: Legislation (LEG) course has the following modules:• Course Introduction• The Chicago Convention, its Annexes and State's Primary Aviation Legislation• The Chicago Convention, its Annexes and State's specific Operating Regulations• Other Instruments• Enforcement• Empowerment of Inspectors• Practice Quiz• Course Summary• Final Exam Part 2: Civil Aviation Organization (ORG) course has the following modules:• Course Introduction• Civil Aviation Organization• Financial Resources• Technical personnel qualification and experience • Technical personnel training • Discovery Activity: Technical guidance, tools and the provision of safety critical information • Practice Quiz• Course Summary• Final Exam | OUI |

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| | | to seek and verify. • Review shortcomings frequently discovered during a CMA audit. | | |
| ICAO USOAP CMA – AIR | 6H | The attendee will be will be able to:Recognize the essential content of Protocol Questions (PQs) in the area of airworthiness (AIR).Become familiar with Chicago Convention Annexes and airworthiness-related guidance materialDiscover key information to seek and verify Review shortcomings frequently discovered during a CMA audit. | Course IntroductionState's Legislation RegulationsOrganization; Equipment and Documentation of the Airworthiness Inspection DivisionProcedures for Airworthiness Inspectors/Engineers and Industry GuidelinesAircraft RegistrationAirworthiness Documents and Related ActivitiesAirworthiness-Related Aspects for Air Operator CertificationApproval of Maintenance OrganizationsAirworthiness Surveillance and Resolution of Safety DeficienciesPractice QuizCourse SummaryFinal Exam | OUI |
| ICAO USOAP CMA – PEL | 6H | The attendee will be able to:<br>Recognize the essential content of Protocol Questions (PQs) in the area of Personnel Licensing and Training (PEL)<br>Become familiar with Chicago Convention Annexes and guidance material related to PEL.<br>- Annex 1and 6<br>- ICAO Documents 9379 / 9835 / 9841<br>Discover key information to seek and review frequent shortcomings to verify during a USOAP CMA audit in the area of PEL.<br>Demonstrate auditing techniques and methodology in the area of PEL. | Course Introduction<br>State's Legislation Regulations for the PEL System<br>Establishing a Personal Licensing System<br>Processing of Licenses and Ratings<br>Medical Assessment<br>Evaluation and Testing of Aviation Personnel<br>Language Proficiency Requirements<br>Certification and Surveillance of Approved Training Organizations<br>Licensing of Aircraft Maintenance Technicians / Engineers / Mechanics<br>Practice Quiz<br>Course Summary<br>Final Exam | OUI |
| ICAO USOAP CMA - OPS | 6H | The attendee will be able to:<br>Recognize the essential content of the Protocol Questions (PQs) in the area of aircraft operations (OPS), including dangerous goods (DG), and identify the more challenging ones<br>Examine the Protocol Questions for the associated ICAO documents, including Annexes 6 and 18 of the Chicago Convention, aircraft operations and dangerous goods-related guidance material<br>Demonstrate the application of auditing techniques and | Introduction<br>State's Legislation Regulations<br>Aircraft Operations Organization<br>Documents Evaluation of AOC Applicant<br>Issuance of the AOC<br>Surveillance of Air Operators<br>Safe Transport of Dangerous Goods by Air<br>Practice Quiz<br>Course Summary<br>Final Exam | OUI |

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| | | methodology in the area of aircraft operations, including dangerous goods | | |
| Management de la conformité aux SARPs OACI | 5J/30H | The attendee will be able to:<br>Develop a strategy to comply with ICAO SARPS<br>Manage the implementation of national requirements<br>Monitor compliance with ICAO SARPs | Introduction<br>Developing a Strategy to comply with ICAO SARPs.<br>Managing National Requirements Implementation<br>Monitoring compliance with ICAO SARPs | OUI |
| Responsables de la supervision de la securité (safety overight managers) | 14J | The attendee will be able to:Understand the role and responsibilities of a safety oversight managerUnderstand the ICAO Standards and Recommended Practices (SARPs) and other national civil aviation regulations relating to safety oversightUpdate your organisation's safety oversight system | Obligations under the Chicago ConventionICAO SARPsICAO Organisation StructureExpanded ICAO Universal Safety Oversight Audit Programme Processes and Audit ResultsEstablishment and Management of the Safety Oversight SystemICAO Safety Audit Oversight ManualsManagement of Aircraft OperatorsSelection and Recruitment of Technical Staff for Civil AviationDevelopment of Staff Training and Competence PolicyRegulatory FrameworkInspectors' HandbooksNational Aviation Regulatory Authority Organisation Structure and Roles: Powers and EnforcementQuality Systems and Safety ManagementICAO Aircraft Incident/Accident Investigation AuditsManagement of Aerodrome SafetyAir Traffic Services Safety Management and AuditsCivil Aviation Authority of Singapore's Safety Management SystemDesignation and Delegation PolicyOperations and Management of Personnel Licensing• Management of Cabin Safety Operations• Legal Principles Underlying Safety Oversight Functions• Bilateral Agreements and Article 83 Bis: Transfer of Responsibility• Success Factors: Managing Global and Corporate Strategies• Best Practices in Resource Management• Strategic Business Planning for Managers• Management of the Regulator and Industry Interface• Management of Aircraft Incident/Accident Investigation• Management of Dangerous Goods• Understanding and Managing Human Factors in a Regulatory/Operational Aviation Environment | OUI |