Appendix II
- Areas of Expertise -

1. Area 1: Aircraft

1.1. Aircraft Design and Production:
Flight test, operational suitability (OSD), human factors, structures, hydro-mechanical and electrical systems, avionics, power plant/fuel installations, cabin safety, environmental control system and ice protection, environmental protection, software and airborne electric hardware, rotor/transmission systems, rotor drive systems, propulsion,-electric propulsion- safety analysis and safety assessment, CSs (23-25-29 etc.), part and appliances (ETSO) certification, organisations (design organisations, production organisations including additive Manufacturing)

1.2. Aircraft continuing airworthiness:
Continuing airworthiness — type-related (in sense of post-type certification activities), continuing airworthiness — aircraft-related issues (in sense of individual A/C CA management and maintenance), continuing airworthiness — organisations (in sense of individual A/C CA management and maintenance).-new maintenance technique (e.g. Predictive maintenance ; remote verification and audits, aircraft inspections by UAS)

1.3. Unmanned Aircraft Systems/ Electric Vertical and Take-off Aircraft:
Command and Control Systems-Flight Controls-Detect and Avoid-altitude limiters-E-identification-Geo Awareness/ fencing-Autonomy-electric propulsion

1.4. Sub-orbital aircraft:
Micro-gravity, rocket propulsion

2. Area 2: Air Operations:

2.1. Operational procedures, cabin operations and cabin and passenger safety aspects, performance, mass and balance, instruments, data and equipment, minimum equipment list (MEL), extended range operations, low visibility operations, performance based navigation, electronic flight bags, environmental protection.

2.2. Flight and duty time limitations and rest requirements.

2.3. Security - Cybersecurity

2.4. Organisation and management of an AOC holder, oversight and certification activities as regards to AOC, declaration, non-commercial operations, ramp inspections, OPS inspector qualifications.

2.5. Specific operations: Remotely piloted aircraft operations including Specific Operation Risk Assessment, airship operations, commercial balloon operations, sailplane operations, helicopter operations, gyroplane operations, reduced crew operations

2.6. Specialised operations: i.e. aerial work (helicopter external loads, helicopter survey operations, human external cargo operations, parachute operations and skydiving, agricultural flights, aerial photography flights, glider towing, aerial advertising flights, calibration flights, construction work flights, oil spill work, avalanche mining operations, survey operations, news media flights, television and movie flights, special events flights, animal herding and rescue flights, maritime funeral operations, scientific research flights, cloud seeding).

2.7. Operational flight data monitoring (OFDM) and analysis, health and usage monitoring system (HUMS) etc.

3. Area 3: Aviation Personnel:

3.1. Flight Crew Licensing and Cabin Crew in the Scope of the Aircrew Regulation:
Flight crew, ICAO Annex 1 licences, sub-ICAO licences LAPL (light aircraft pilot licence), private pilot licences (PPL), sailplane pilot licences (SPL), balloon pilot licences (BPL), commercial pilot licences (CPL), multi-crew pilot licences (MPL), airline transport pilot licences (ATPL), attributes to licences (language proficiency assessment, type ratings, class ratings, instrument ratings, additional ratings), instructors, examiners, flight simulation training devices (FSTD), approved training organisations (ATO), organisations operating FSTDs, flight test training organisations, ATO flight operations, cabin crew (attestations, training and qualifications, organisations approved to provide initial training), Competency based training-Event Based training, etc.

3.2. Operator flight crew training, advanced training and qualification programme (ATQP), evidence-based training

3.3. Operator related cabin crew training

3.4. Other aviation personnel:
Technical crew (training and crew resource management), maintenance engineers (training/examination/practical assessment, licences, other training and qualifications, maintenance human factors, maintenance training organisations approvals — MTOA, training organisations) and air traffic controllers and other ATM personnel (licences, human factors and training organisations).

3.5. Development of questions for the European Central Question Bank (ECQB) for the theoretical knowledge examinations:
Theoretical subjects air law, aircraft general knowledge, mass and balance/ performance/ flight planning and monitoring, human performance, meteorology, general navigation/ radio navigation, operational procedures, principles of flight, VFR/ IFR communications for aeroplane and/or helicopter and/or airship categories of aircraft.

3.6. Medical certificates:
Medical examiners (AeMC — aero-medical centre, AME — aero-medical examiner, GMP — general medical practitioner, OHMP — occupational health medical practitioner), medical criteria (flight crew medical certificate — commercial pilots, flight crew medical certificate — private pilots, ICAO compliant and sub-ICAO medical certificates, ATCO medical certificate, cabin crew medical fitness, technical crew fitness), other.

4. Area 4: Aerodromes:

Operations (management, environmental protection, anti-ice/de-ice, ground handling, fire-fighting, wildlife management, emergency planning), operators (aeronautical data, human factors, personnel training, safety management, environmental protection, compliance monitoring, aerodrome manual) and design (movement area etc., visual aids, NAV aids and obstacle clearance).

5. Area 5: Air Traffic Management:

Design of technical means (systems, systems safety analysis, airspace design, procedure design), SAR — search and rescue, ATS — air traffic services, CNS — communications/navigation/surveillance, AIS — aeronautical information services, MET — meteorological services providers, ASM — airspace management, ATFM — air traffic flow management, air traffic control officer (ATCO) training, SERA — standardised European rules of the air, AIM — aeronautical information management, airspace design including procedures design, aeronautical data, safety assessment, safety performance, safety management, environmental protection, FABs — functional airspace blocks- Unmanned Aircraft Traffic Management including Very Low level Operations and Very High level Operations

6. Area 6: Horizontal Disciplines:

6.1. Safety Management:

- Aviation safety, safety management system, state safety program, validation and verification techniques applied to aviation systems or operations, aviation regulatory impact assessments.
- Safety promotion, safety planning, risk analysis and assessment, statistical analysis, modelling.
- Reporting systems, taxonomy, integrated data systems.
- Human factors, human performance, ergonomics.

6.2. Authority management system, oversight and certification in general, inspector qualifications

6.3. Event Response:
Accident investigation (flight data recovery, forensic science), hazardous substances, crisis management, disaster recovery, emergency response planning, simulations and exercises.

6.4. Foresight:
Knowledge development and transfer applied to aviation safety and development of aviation (new technologies, new vehicles), futurology, forecasting.

6.5. International & Institutional Relations:
Aviation security, third country operators, military or civil interface, governance.

6.6. Economic, Management & Organisations:
Aviation auditing and oversight, organisations approvals, development of aviation (new business models, new concepts of operation), regulatory/rulemaking processes and techniques, impact assessments, socio-economic analysis, product certification processes and techniques, training techniques, project management (engineering project management), operational research in aviation and air transport.

6.7. Environmental:
Aviation environmental protection, aviation environmental regulatory impact assessments, meteorology.

6.8. Aviation Medical:
Aviation medicine (aviation physiology, internal medicine, surgery, ophthalmology, neurology, psychiatry, addictions with focus on problematic use of psychoactive substances, occupational health in aviation, medical statistics, spread of infectious disease via air travel), trauma, toxicity.

6.9. Legal:
Legal advice in the areas of the Agency's technical competencies as well as in other fields of relevant law such as aviation law, public international law (incl. treaties and agreements), civil/private law (incl. Intellectual property law), IT law, administrative law, EU staff regulations, debts recovery, EU law and court litigation (national & ECJ), privacy (e.g. General Data Protection Regulation)

6.10 New and emerging technologies
Artificial Intelligence, Digitalisation, Internet of Things, Nanotechnologies, Blockchain, 5G communication systems, Augmented Reality/ Virtual reality, Quantum computing

7. Area 7: Business & Support Disciplines:

Quality and Process Management, ICT -Information and Communication Technology (e.g. Data Centre, IT Strategy, Enterprise Architecture), Travel (Employer's duty of care for travellers, travel security, field support for travellers), Corporate Services & Facility Management, Information & Records Management, Communication (writers, editors, web designers, event support, etc.), Finance & Cost Accounting, Human Resources (HR), Procurement etc.