A COMPARISON OF THE SOURCES OF LAW ILLUSTRATED BY THE REQUIREMENTS FOR THE PPL (A)

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Stefan-Michael Wedenig (01357123)
# Table of Content

**LIST OF ABBREVIATIONS** ........................................................................................................ 4

I. INTRODUCTERY NOTE - PROBLEM ....................................................................................... 6

II. HOW THE AIRSPACE IS GOVERNED .................................................................................... 8

   a. **International Civil Aviation Organisation (ICAO)** .......................................................... 8
      Purpose and Structure ........................................................................................................ 8

   a. **The European Aviation Safety Agency (EASA)** ............................................................. 10
      Purpose and Structure ....................................................................................................... 10

   b. **EASA and ICAO** ........................................................................................................... 13

   c. **The Austrian Aviation Authority** ................................................................................... 14

III. REQUIREMENTS FOR THE PRIVATE PILOT LICENCE AEROPLANE – PPL(A) ....................... 15

   a. **Privileges of the licence holder** .................................................................................... 15

   b. **Age** .................................................................................................................................. 17

   c. **Knowledge** .................................................................................................................... 17

   d. **Skill** ............................................................................................................................... 24

   e. **Language Proficiency** .................................................................................................. 26

   f. **Medical Certificate/Medical Assessment Class 2** .......................................................... 29

   g. **Experience** ..................................................................................................................... 61

   h. **Flight instruction** .......................................................................................................... 66

   i. **Category, Class, Type Ratings** ..................................................................................... 68

   j. **Validity of licences** ....................................................................................................... 73

   k. **Action by the Contracting States** ................................................................................ 77

**LITRATURE** .......................................................................................................................... 80
# LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AeMc</td>
<td>Aero-Medical Centre</td>
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<tr>
<td>AIP</td>
<td>Aeronautical Information Publications</td>
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<tr>
<td>AME</td>
<td>Aviation Medical Examiner</td>
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<tr>
<td>ATO</td>
<td>Approved Training Organisations</td>
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<tr>
<td>ATPL</td>
<td>Airline Transport Pilot Licence</td>
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<tr>
<td>BGBI</td>
<td>Bundesgesetzblatt</td>
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<tr>
<td>BPL</td>
<td>Balloon Pilot Licence</td>
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<tr>
<td>CRI</td>
<td>Class Rating Instructor</td>
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<td>dB</td>
<td>Decibel</td>
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<tr>
<td>EASA</td>
<td>European Aviation Safety Agency</td>
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<td>EC</td>
<td>European Community</td>
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<tr>
<td>ECG</td>
<td>Electrocardiogram</td>
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<td>EU</td>
<td>European Union</td>
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<td>FCL</td>
<td>Flight Crew Licensing</td>
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<td>FI</td>
<td>Flight Instructor</td>
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<tr>
<td>FSTD</td>
<td>Flight Simulator Training Device</td>
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<tr>
<td>GmbH</td>
<td>Gesellschaft mit beschränkter Haftung</td>
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<td>HIV</td>
<td>Human immunodeficiency Virus</td>
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<td>Hz</td>
<td>Hertz</td>
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<tr>
<td>ICAO</td>
<td>International Civil Aviation Organization</td>
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<tr>
<td>idF</td>
<td>in der Fassung</td>
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<tr>
<td>iVm</td>
<td>in Verbindung mit</td>
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<tr>
<td>JAA</td>
<td>Joint Aviation Authorities</td>
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<tr>
<td>LAPL (A)</td>
<td>Light Aircraft Pilot Licence Aeroplane</td>
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<tr>
<td>LAPL (S)</td>
<td>Light Aircraft Pilot Licence Sailplane</td>
</tr>
<tr>
<td>MED</td>
<td>Medical</td>
</tr>
<tr>
<td>NM</td>
<td>Nautical Mile</td>
</tr>
<tr>
<td>No</td>
<td>Number</td>
</tr>
<tr>
<td>NOTAM</td>
<td>Notice to Airmen</td>
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<td>OJ</td>
<td>Official Journal</td>
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<tr>
<td>p.</td>
<td>Page</td>
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<tr>
<td>Abbreviation</td>
<td>Description</td>
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<tr>
<td>PIC</td>
<td>Pilot in Command</td>
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<td>PPL (A)</td>
<td>Private Pilot Licence Aeroplane</td>
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<tr>
<td>S.</td>
<td>Seite</td>
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<tr>
<td>SARPs</td>
<td>Standards and Recommended Practices</td>
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<tr>
<td>SEP</td>
<td>Single Engine Piston</td>
</tr>
<tr>
<td>SPL</td>
<td>Sailplane Pilot Licence</td>
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<tr>
<td>TMG</td>
<td>Touring Motor Glider</td>
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<tr>
<td>URL</td>
<td>Uniform Resource Locator</td>
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<tr>
<td>VFR</td>
<td>Visual Flight Rules</td>
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<tr>
<td>vgl</td>
<td>vergleiche</td>
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<td>vol.</td>
<td>Volume</td>
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I. INTRODUCTERY NOTE - PROBLEM

Aviation is something that has fascinated all human beings since the beginning of time. Mankind dreamt of reaching the skies and touching the clouds. When we finally achieved that ultimate goal of flying at the beginning of the 20th century, people were quick to use it for purposes of war. After World War I and in the middle of World War II states realised that rules had to be made. So they came together and laid the foundation for the peaceful use of aviation in the Convention on International Civil Aviation (hereinafter referred to as the Chicago Convention), which was signed in Chicago on 7 December 1944. A convention that still possesses validity to this day governs the regime of international cooperation in the aviation sector thus making it one of the most important, if not the most important, international agreement in the aviation sector. By establishing the International Civil Aviation Organisation (ICAO) in Part II of the Chicago Convention the Contracting Parties made sure to establish a legal entity that solely focuses on matters concerning international civil aviation. The Contracting States knew that over time aviation would eventually develop and wanted to make sure that a mutual recognition of certificates and licences was guaranteed. They expressly state this in Article 33 of the Convention:

“Certificates of airworthiness and certificates of competency and licenses issued or rendered valid by the contracting State in which the aircraft is registered, shall be recognized as valid by the other contracting States, provided that the requirements under which such certificates or licenses were issued or rendered valid are equal to or above the minimum standards which may be established from time to time pursuant to this Convention.”¹

That is precisely what the ICAO did in 1948 by establishing Annex I (Personnel Licensing) and creating standards and recommended practices (SARPs), which should ensure mutual recognition. On 3 November 2011 the European Union issued Regulation 1178/2011. This so-called Air-Crew Regulation deals precisely with requirements for Personnel Licensing within the European Union. The purpose of this Diploma Thesis will be to compare those two sources of Law (Annex I and Regulation 1178/2011) and illustrate the differences demonstrated by the requirements for the Private Pilot Licence for Aeroplanes (PPL (A)).

¹ Convention on International Civil Aviation, Article 33
At the beginning a short overview of the ICAO and the European Aviation Safety Agency (EASA) will be provided before the differences of those two legal regimes will be illustrated. For better understanding and overview the excerpts of Regulation 1178/2011 are highlighted in green, those of Annex I in blue.
II. HOW THE AIRSPACE IS GOVERNED

a. International Civil Aviation Organisation (ICAO)

Purpose and Structure

The International Civil Aviation Organisation (ICAO) is a specially created agency within United Nations system similar to the World Health Organisation or the International Maritime Organisation. Established in Article 43 of the Chicago Convention of 1944, the organisation enjoys “(…) in the territory of each contracting State such legal capacity as may be necessary for the performance of its functions (…)”. The objectives of the ICAO are set out in the Chicago Convention especially in its Article 44 that states:

The aims and objectives of the Organization are to develop the principles and techniques of international air navigation and to foster the planning and development of international air transport so as to:
(a) Insure the safe and orderly growth of international civil aviation throughout the world;
(b) Encourage the arts of aircraft design and operation for peaceful purposes;
(c) Encourage the development of airways, airports, and air navigation facilities for international civil aviation;
(d) Meet the needs of the peoples of the world for safe, regular, efficient and economical air transport;
(e) Prevent economic waste caused by unreasonable competition;
(f) Insure that the rights of contracting States are fully respected and that every contracting State has a fair opportunity to operate international airlines;
(g) Avoid discrimination between contracting States;
(h) Promote safety of flight in international air navigation;

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3 Convention on International Civil Aviation, Article 47
(i) *Promote generally the development of all aspects of international civil aeronautics.*

The ICAO was created on the principle of absolute sovereignty of every nation over its own airspace and its purpose was to help re-establishing the regulatory system for commercial aviation and to deal with security issues such as the militarisation of civil aviation. In order to fulfil all its objectives and to ensure a level of uniformity, the ICAO creates so-called standards and recommended practices (SARPs). Those SARPs are published as Annexes to the Chicago Convention. The authority to adopt as well as amend such international standards and recommended practices is expressly conferred onto the ICAO in Article 37 of the Chicago Convention. Pursuant to Article 38 every Contracting State has the right and the possibility to adopt regulations or practices that are different to those established by international standards as long as they notify the International Civil Aviation Organisation (a simple notification is sufficient). However, if they decided to adopt a lower standard as the one established by the ICAO, the contracting states would also lose their right of mutual recognition pursuant to Article 33. The adoption of higher standards as those established by the ICAO is unproblematic for Article 33 clearly states that “Certificates of airworthiness and certificates of competency and licenses issued or rendered valid by the contracting State in which the aircraft is registered, shall be recognized as valid by the other contracting States, provided that the requirements under which such certificates or licenses were issued or rendered valid are equal to or above the minimum standards which may be established from time to time pursuant to this Convention.” Currently 191 States are contracting parties of the Chicago convention, including all Member States of the European Union.

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5 Convention on International Civil Aviation, Article 44  
10 Convention on International Civil Aviation, Article 33  
a. The European Aviation Safety Agency (EASA)

Purpose and Structure

The European Aviation Safety Agency (EASA) was created on 15th July 2002 by the European Community (EC) in Regulation (EC) No. 1592/2002 (repealed and replaced by Regulation (EC) No 216/2008). Since the European Community found it necessary to ensure a uniform level of protection of European citizens in civil aviation, it created the EASA as body of the Community with legal personality giving it autonomy and independence in technical, legal, administrative and financial matters regarding the safety of civil aviation. The main objectives of the EASA are set out in Article 17 of the Regulation stating that:

1. For the purpose of the implementation of this Regulation, a European Aviation Safety Agency, hereinafter referred to as 'the Agency', shall be established.

2. For the purposes of ensuring the proper functioning and development of civil aviation safety, the Agency shall:
   (a) undertake any task and formulate opinions on all matters covered by Article 1(1);
   (b) assist the Commission by preparing measures to be taken for the implementation of this Regulation. Where these comprise technical rules and in particular rules relating to construction and design and operational aspects, the Commission may not change their content without prior coordination with the Agency. The Agency shall also provide the Commission with the necessary technical, scientific and administrative support to carry out its tasks;
   (c) take the necessary measures within the powers conferred on it by this Regulation or other Community legislation;
   (d) conduct inspections and investigations as necessary to fulfil its tasks;

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(e) in its fields of competence, carry out, on behalf of Member States, functions and tasks ascribed to them by applicable international Conventions, in particular the Chicago Convention.

Article 17 is very strict binding the Commission to a coordination with the Agency in technical matters as well as rules relating to the construction, the design and operational aspects. For that purpose, the Agency acts through opinions and decisions\(^{14}\). The Agency has also the authority to assist the European Community and the Members States in their relations with third countries especially where the harmonising of rules and mutual recognition regarding approvals attesting the satisfactory application of rules is concerned\(^{15}\). The Regulation however extended the scope of the EASA even further giving it the opportunity to cooperate with third countries and international organisations directly\(^{16}\).

The Regulation itself expressly establishes three main organs: The Management Board\(^{17}\), the Executive Director\(^{18}\) and the Boards of Appeal\(^{19}\). In addition to that, the Agency can recruit the amount of employees necessary to carry out all the duties and responsibilities conferred to it by Regulation 216/2008\(^{20}\). As illustrated above the objectives of the EASA are numerous and since the EASA has to cover a broad area of law, the internal structure is consequently very big. Below an example of the organisational structure as published in the Activity Report of 2016.

The European Union governs the upper airspace (25,500 feet or 8700 meters) directly and combines it to one Single European Sky in order to strengthen and support the smooth handling of traffic.\(^{21}\) This “Single European Sky” was established in Regulation (EC) No. 549/2004 and the Commission consequently requested the EASA to “submit an integrated

report on the fulfilment of these regulatory obligations, avoiding multiple reporting requests." The EASA therefore also inspects the fulfilment of the obligations of the Member States and assists the Commission in the task of implementing correctly the Single European Sky Framework Regulation.

Long before the EASA was established, the members of the European Civil Aviation Conference created the so-called Joint Aviation Authorities (JAA) in order to establish a standardised level of certificates and other official documents. Unfortunately, those JAA were not an official international organisation thus they had to rely on the compliance of the national aviation authorities.

The EASA and the Single European Sky were established by regulations and since regulations are directly applicable and enforceable, the Member States were forced to fulfil all their obligations under the regulations. Regulation 216/2008 subsequently states in paragraph 31 of its preamble only that “(...)the transfer of functions and tasks from the Member States, including those resulting from their cooperation through the Joint Aviation Authorities, to the Agency should be effected efficiently, without any reduction in the current high levels of safety, and without any negative impact on certification schedules(...)” and thus making it obvious that it was the will of the Union legislator to replace the JAA by the EASA.

b. EASA and ICAO

The Regulation 216/2008 mentions the Chicago Convention of 1944 and the International Civil Aviation Organisation on numerous occasions. Right at the beginning in its Preamble the Regulation makes it abundantly clear that the Community rules should complement the Chicago Convention. For “the Chicago Convention already provides for minimum standards

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to ensure the safety of civil aviation and environmental protection relating thereto” and Community law should “(...) ensure that Member States fulfil the obligations created by the Chicago Convention including those vis-à-vis third countries”. In addition to that, all Community law regarding civil aviation should be laid down “in line with standards and recommended practices set by the Chicago Convention (...)

This principle is again highlighted in Article 2 (2) lit d. Pursuant to this article it is the objective of the Regulation “to assist Member States in fulfilling their obligations under the Chicago Convention, by providing a basis for a common interpretation and uniform implementation of its provisions, and by ensuring that its provisions are duly taken into account in this Regulation and in the rules drawn for its implementation.”

This is insofar necessary as the Regulation only concerns Member States of the European Union. The Chicago Convention however is an international treaty with Contracting States from all over the world. All the Member States of the European Union are also Contracting Parties of the Chicago Convention and therefor required to fulfil their obligations that derive from that treaty. As mentioned already above, if a state implemented lower requirements as those laid out by the Chicago convention, it would actively waive its right of mutual recognition by other Contracting States. Consequently, the European Union is forced to respect the standards and recommended practices as laid out by the Chicago Convention.

c. The Austrian Aviation Authority

The Aviation Authority in Austria is the Minister for Transport, Innovation and Technology (Bundesminister für Verkehr, Innovation und Technologie), who confers part of his authority onto the Austro Control GmbH in order to reach a maximum level of cost effectiveness, cost savings and simplicity.

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31 §140 LFG (Luftfahrtgesetz, BGBl II Nr. 253/1957 idF BGBl II Nr. 92/2017)
In order to comply with European Law, Austria has implemented Regulation 1178/2011 into the national legal order.\textsuperscript{32} The old requirements of the JAA are published as Annexes to the Austrian Air Crew Regulation (Zivilluftfahrt Personalverordnung).\textsuperscript{33} Thus it is guaranteed that all European Provisions are implemented into the national legal order of Austria.

III. REQUIREMENTS FOR THE PRIVATE PILOT LICENCE AEROPLANE – PPL(A)

\textit{a. Privileges of the licence holder}

\textit{Privileges of the holder of the licence and the conditions to be observed in exercising such privileges (2.3.2)}

Subject to compliance with the requirements specified in 1.2.5., 1.2.6, 1.2.7.1, 1.2.9 and 2.1, the privileges of the holder of a private pilot licence shall be to act, but not for remuneration, as pilot-in-command or co-pilot of aircraft within the appropriate aircraft category engaged in non-revenue flights. (2.3.2.1)

Before exercising the privileges at night, the licence holder shall have received dual instruction in aircraft within the appropriate category of aircraft in night flying, including take-off, landing and navigation. (2.3.2.2)

\textit{FCL.205.A PPL(A)-Privileges}

\textit{(a) The privileges of the holder of a PPL(A) are to act without remuneration as PIC or co-pilot (...) engaged in non-commercial operations.}

\textsuperscript{32} §1a Zivilluftfahrt Personalverordnung (BGBl II Nr. 205/2006 iDf BGBl II Nr. 89/2016)
\textsuperscript{33} vgl. Zivilluftfahrt Personalverordnung. (BGBl II Nr. 205/2006 iDf BGBl II Nr. 89/2016)
(b) Notwithstanding the paragraph above, the holder of a PPL (A) with instructor or examiner privileges may receive remuneration for:

1. the provision of flight instruction for the LAPL(A) or PPL(A);
2. the conduct of skill tests and proficiency checks for these licences;
3. the ratings and certificates attached to these licences.

Both legal regimes grant permission to the holder of a private pilot licence to engage in non-commercial and non-revenue flight as pilot-in-command (PIC) or co-pilot. In other words: The holders of a private pilot licence are not allowed to receive payment in any form for providing their services\(^34\). The only exception grants Regulation 1178/2011 by giving the flight instructor the permission to receive remuneration for flight instructions, the conduction of skill tests and proficiency tests as well as the ratings and certificates attached to these licences\(^35\). We do not find a similar provision in Annex I, neither in section 2.3.2 nor in 2.8 (Flight Instructor rating).

However this does not mean that Annex I prohibits the remuneration of flight instructors. Quite the contrary – by not regulating it, it allows the Contracting States to handle it as they see fit. The European Union did precisely that by exempting flight instructors from FCL.205.A. Flight instructors, whether they only hold a PPL (A) or not, have to undergo specific training in order to obtain examiner or instructor privileges\(^36\).

Annex I also includes in 2.3.2.2 a so-called “Night Rating” that is the permission to fly during the night. We do not find that under the general privileges of the holder of a PPL (A) but rather in SUBPART I (Additional Ratings) - FCL.810 (Night Rating) of Regulation 1178/2011 Regulation 1178/2011 thus makes sure that Member States follow the obligations required in 2.3.2.2.

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\(^34\) vgl. EASA: Licensing for General Aviation, URL: https://www.easa.europa.eu/easa-and-you/general-aviation/licensing-general-aviation


b. Age

“The applicant shall be not less than 17 years of age” (2.3.1.1.)
“An Applicant for a PPL shall be at least 17 years of age (FCL.200)

The minimum age to apply for a Private Pilot License is seventeen (17) years. This applies to both, Annex I and Regulation 1178/2011. Annex I establishes the minimum age in 2.3.1.1, Regulation 1178/2011 does so in Subpart C, Section 1, FCL.200

c. Knowledge

The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a private pilot licence and appropriate to the category of aircraft intended to be included in the licence, in at least the following subjects:

Air law

a) Rules and regulations relevant to the holder of a private pilot licence; rules of the air; altimeter setting procedures; appropriate air traffic services practices and procedures;

Aircraft general knowledge for aeroplanes, airships, helicopters and powered-lifts

b) Principles of operation and functioning of engine, systems and instruments
c) Operating limitations of the relevant category of aircraft and engines; relevant operational information from the flight manual or other appropriate document;
d) For helicopters and powered-lifts, transmission (power trains) where applicable;
e) (...)
Flight performance, planning and loading

f) Effects of loading and mass distribution on flight characteristics; mass and balance calculations

g) Use and practical application of take-off, landing and other performance data;

h) Pre-flight and en-route flight planning appropriate to private operations under VFR; preparations and filing of air traffic services flight plans;

appropriate air traffic services procedures; position reporting procedures;
altimeter setting procedures; operations in areas of high-density traffic;

Human performance

i) Human performance including principles of threat and error management

Meteorology

j) Application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information; altimetry; hazardous weather conditions;

Navigation

k) Practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts
Operational procedures

l) Application of threat and error management to operational performance;
m) Altimeter setting procedures;
n) Use of aeronautical documentation such as AIP, NOTAM, aeronautical codes abbreviations
o) Appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence and other operation hazards;
p) (...)

Principles of flight

q) Principles of flight

Radiotelephony

r) Communication procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure. (2.3.1.2)

1.2.5 Validity of licences

A Contracting State, having issued a licence, shall ensure that the privileges granted by that licence, or by related ratings, are not exercised unless the holder maintains competency and meets the requirements for recent experience established by that State (1.2.5.1)

Recommendation.-A Contracting State should establish maintenance of competency and recent experience requirements for pilot licence and ratings based on a systematic approach to accident prevention and should include a risk assessment process and analysis of current operations, including accident and incident data appropriate to that State. (1.2.5.1.1)
A Contracting State, having issued a licence, shall ensure that other Contracting States are enabled to be satisfied as to the validity of the licence. (1.2.5.1.2)

FCL.025 Theoretical knowledge examinations for the issue of licences

(a) Responsibilities of the applicant

(1) Applicants shall take the entire set of theoretical knowledge examinations for a specific licence or rating under the responsibility of one Member State. (Amended by 245/2014)

(2) Applicants shall only take the theoretical knowledge examination when recommended by the approved training organisation (ATO) responsible for their training, once they have completed the appropriate elements of the training course of theoretical knowledge instruction to a satisfactory standard. (Amended by 245/2014)

(3) The recommendation by an ATO shall be valid for 12 months. If the applicant has failed to attempt at least one theoretical knowledge examination paper within this period of validity, the need for further training shall be determined by the ATO, based on the needs of the applicant.

(b) Pass standards

(1) A pass in an theoretical knowledge examination paper will be awarded to an applicant achieving at least 75% of the marks allocated to that paper. There is no penalty marking. (Amended by 245/2014)

(2) Unless otherwise determined in this Part, an applicant has successfully completed the required theoretical knowledge examination for the appropriate pilot licence or rating when he/she has passed all the required examination papers within a period of 18 months counted from the end of the calendar month when the applicant first attempted the examination.

(3) If an applicant has failed to pass one of the theoretical knowledge examination papers within 4 attempts, or has failed to pass all papers within either 6 sittings or the period mentioned in paragraph (2), he/she shall re-take the complete set of examination papers. Before re-taking the theoretical knowledge examinations, the applicant shall
undertake further training at an ATO. The extent and scope of the training needed shall be determined by the training organisation, based on the needs of the applicant. *(Amended by 245/2014)*

(c) Validity period

(1) The successful completion of the theoretical knowledge examination will be valid:

i. for the issue of a (...) private pilot licence (...) for a period of 24 months.

ii. (...)

iii. The periods in (i) and (ii) shall be counted from the day when the pilot successfully completes the theoretical knowledge examination, in accordance with (b)(2).

(2) (...)

_FCL.215 Theoretical knowledge examination_

Applicants for a (...) PPL shall demonstrate a level of theoretical knowledge appropriate to the privileges granted through examinations in the following subjects:

(a) common subjects:

- Air law,
- Human performance,
- Meteorology, and
- Communications;

(b) specific subjects concerning the different aircraft categories:

- Principles of flight,
- Operational procedures,
- Flight performance and planning,
- Aircraft general knowledge, and
- Navigation.
FCL.035 Crediting of flight time and theoretical knowledge

(a) (...)

(b) Crediting of theoretical knowledge

(1) An applicant having passed the theoretical knowledge examination for an airline transport pilot licence shall be credited with the theoretical knowledge requirements for the (...), the private pilot licence, (...)

(2) An applicant having passed the theoretical knowledge examination for a commercial pilot licence shall be credited with the theoretical knowledge requirement for a (...) private pilot licence in the same category of aircraft.

(3) (...)

(4) The holder if a pilot licence shall be credited towards the requirements for theoretical knowledge instruction and examination for a licence in another category of aircraft in Accordance with Appendix 1 to this part.

The credit also applies to applicants for a pilot licence who have already successfully completed the theoretical knowledge examinations for the issue of that licence in another category of aircraft, as long as it is within the validity period specified in FCL.025(c).

Annex I is more specific and establishes better parameters for each subject therefore enforcing a stricter minimum level of knowledge and competency the Contracting States have to maintain and implement in their respective legal orders. Regulation 1178/2011 is much more general and only names the general subjects students have to complete in order to obtain their licence (e.g. Air Law, Human Performance, Meteorology etc.). Annex I speaks of Radiotelephony while Regulation 1178/2011 speaks of Communication. This is essentially the same. Both law regimes understand the communication via radio with other pilots and Air Traffic Control. “Communication” is a much wider and broader term than “Radiotelephony” the latter only meaning the communication via radio. “Communication” as established by Regulation 1178/2011 also includes the intra-cockpit communication between pilots and other members of the flight crew. This can also be derived from

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37 Convention on International Civil Aviation, Annex I, Paragraph 2.3.1.2
FCL.055 (Language Proficiency) in which Regulation 1178/2011 stipulates that holders of a PPL (A) have to be able to communicate effectively in voice-only and face-to-face situation\(^39\).

It is noteworthy that Annex I in 2.3.1.2 speaks of flight performance, planning and loading while Regulation 1178/2011 only knows flight performance and planning. Annex I therefore is a bit more specific in that regard but since loading and mass distribution form an essential part of every pilot’s flight planning it has to be assumed that Regulation 1178/2011 also covers loading in FCL.215.

The Member States of the European Union, in order to maintain the level of knowledge and competency required by Annex I, have to make sure that their national standards meet those very requirements. Although Regulation 1178/2011 is using a more general approach the Member States, which are also Contracting States of the Chicago Convention\(^40\), have to raise their national standards to the level required by Annex I. This does not stand in conflict with their obligations under European Law as Regulation 1178/2011 is more general in its approach. The EASA has published in its “Acceptable Means of Compliance and Guidance Material to Part-FCL” specific parameters, which ensure that the Member States follow their obligations under the Chicago Convention.\(^41\)

It needs to be pointed out that Regulation 1178/2011 allows and therefore regulates the crediting of theoretical knowledge as well as establishes clear guidelines on how and when an examination may be passed\(^42\). Annex I does not know such a provision. By doing so the European Union follows the Recommendation in 1.2.5.1.1 of Annex I. Annex I recommends that Contracting States should establish maintenance of competency and recent experience requirements for pilot licence and ratings\(^43\). The crediting of flight time as well as the establishment of pass standards falls clearly under the scope of the above-mentioned Recommendation (1.2.5.1.1).

With Regulation 1178/2011 the European Union established a clear set of rules governing the examination of student pilots for all 28 Member States. Annex I expressly recommends and allows this.


\(^{40}\) vgl. ICAO: Member States List, URL: https://www.icao.int/MemberStates/Members%20States.Multilingual.pdf


\(^{43}\) Convention on International Civil Aviation, Annex I, Paragraph 1.2.5.1.1
d. Skill

The applicant shall have demonstrated the ability to perform as pilot-in-command of an aircraft within the appropriate category of aircraft, the procedures and manoeuvres described in 2.3.3.2 (...) with the degree of competency appropriate to the privileges granted to the holder of a private pilot licence, and to:

a) Recognize and manage threats and errors;
b) Operate the aircraft within its limitations;
c) Complete manoeuvres with smoothness and accuracy;
d) Exercise good judgement and airmanship;
e) Apply aeronautical knowledge; and
f) Maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured. (2.3.1.3)

FCL.030 Practical skill test

(a) Before a skill test for the issue of a licence, rating or certificate is taken, the applicant shall have passed the required theoretical knowledge examination, except in the case of applicants undergoing a course of integrated flying training. In any case, the theoretical knowledge instruction shall always have been completed before the skill tests are taken.

(b) (...)

FCL.235 Skill Test

(a) Applicants for a (...) PPL shall demonstrate through the completion of a skill test the ability to perform, as PIC on the appropriate aircraft category, the relevant
procedures and manoeuvres with competency appropriate to the privileges granted.

(b) An applicant for the skill test shall have received flight instruction on the same class or type of aircraft (…) to be used for the skill test.

(c) Pass marks

(1) The skill test shall be divided into different sections, representing all the different phases of flight appropriate to the category of aircraft flown.

(2) Failure in any item of a section will cause the applicant to fail the entire section. Failure in more than 1 section will cause the applicant to fail the entire test. If the applicant fails only 1 section, he/she shall repeat only that section.

(3) When the test needs to be repeated in accordance with (2), failure in any section, including those that have been passed on a previous attempt, will cause the applicant to fail the entire test.

(4) Failure to achieve a pass in all sections of the test in 2 attempts will require further training.

While Annex I has a more detailed approach stipulating clearly minimum requirements the holder of a private pilot licence has to meet, Regulation 1178/2011 uses a more general approach. Regulation 1178/2011 mandates that applicants for a PPL(A) shall demonstrate through a skill test the ability to handle and aircraft and proof that they have competency in the appropriate manoeuvres and relevant procedures in regards to the licence and rating privilege sought. Annex I clearly describes in 2.3.1.3 lit a-f the areas which it deems the most important for a holder of a pilot licence to master.

Once again Regulation 1178/2011 (in itself) is more general in its approach giving the Member States the possibility to fall back to the standards put forward by Annex I while making sure the to meet all requirements of Annex I. 1178/2011 also established a clear set of rules on when a practical skill test is considered to be passed and how such a practical skill test looks like. Annex I only mandates that an applicant shall have demonstrated the ability to perform as a pilot-in-command on an aircraft in the respective category. It therefore leaves it entirely to the Contracting States to decide how to maintain such a level

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45 Convention on International Civil Aviation, Annex I, Paragraph 2.3.1.3, lit a-f
and implement it into their respective national legal orders. Regulation 1178/2011, through detailed guidelines on when a practical skill test is considered to be successful, makes sure that the holders of a pilot licence demonstrate the ability to fly the respective aircraft category as pilot-in-command.

Annex I does not establish any parameters on how the Contracting States should ensure that a pilot demonstrates the adequate ability to fly the appropriate aircraft category. In other words, the same as with theoretical knowledge, Annex I does not know any skill tests. It leaves it to the Contracting States to make sure that all the requirements are met. Furthermore, Regulation 1178/2011 clearly states that the applicant has to receive flight training on the same class or type of aircraft that is used for the skill test. We do not find a similar provision in Annex I. Annex I only mandates that an applicant needs to demonstrate the sufficient ability to act as a pilot-in-command of an aircraft within the appropriate category of aircraft. Such sufficient knowledge can only be obtained when the applicant is already familiar with the category of aircraft he or she is using for the skill test. Therefore, Regulation 1178/2011 complies with Annex I. By requiring that the applicant shall receive flight training on the same class of aircraft Regulation 1178/2011 makes sure that the appropriate ability, which Annex I mandates, is acquired.

e. Language Proficiency

1.2.9 Language proficiency

Aeroplane (...) pilots (...) shall demonstrate the ability to speak and understand the language used for radiotelephony communications to the level specified in the language proficiency requirements in Appendix I. (1.2.9.1)

The language proficiency of aeroplane (...) pilots (...) who demonstrate proficiency below the Expert Level (Level 6) shall be formally evaluated at intervals in accordance with an

47 Convention on International Civil Aviation, Annex I, Paragraph 2.3.1.3
49 Convention on International Civil Aviation, Annex I, Paragraph 2.3.1.3
individual’s demonstrated proficiency level. (1.2.9.5)

**Recommendation.** The language proficiency for aeroplane (...) pilots (...) who demonstrate a proficiency below Expert Level (Level 6) should be formally evaluated at intervals in accordance with an individual’s demonstrated proficiency level, as follows:

- a) those demonstrating language proficiency at the Operational Level (Level 4) should be evaluated at least once every three years; and
- b) those demonstrating language proficiency at the Extended Level (Level 5) should be evaluated at least once every six years. (1.2.9.6)

**FCL.055 Language proficiency**

(a) General. Aeroplane (...) pilots required to use the radio telephone shall not exercise the privileges of their licences and ratings unless they have a language proficiency endorsement on their licence in either English or the language used for radio communications involved in the flight. The endorsement shall indicate the language, the proficiency level and the validity date.

(b) The applicant for a language proficiency endorsement shall demonstrate, in accordance with Appendix 2 to this Part, at least an operational level of language proficiency both in the use of phraseologies and plain language. To do so, the applicant shall demonstrate the ability to:

1. Communicate effectively in voice-only and in face-to-face situations;
2. Communicate on common and work-related topics with accuracy and clarity;
3. Use appropriate communicative strategies to exchange messages and to recognise and resolve misunderstandings in general or work-related context.
4. handle successfully the linguistic challenges presented by a complication or unexpected turn of events which occurs within the context of a routine work situation or communicative task with which they are otherwise familiar; and
5. use a dialect or accent which is intelligible to the aeronautical community.

(c) Except for pilots who have demonstrated language proficiency at an expert level, in accordance with Appendix 2 to this Part, the language proficiency endorsement shall be re-evaluated every:
(1) 4 years, if the level demonstrated is operational level; or
(2) 6 years, if the level demonstrated is extended level.

It is noteworthy that Annex I only speaks of radiotelephony communication while Regulation 1178/2011 expressly includes face-to-face intra cockpit communication.\footnote{Commission Regulation (EU) No.1178/2011 of 03 November 2011, Subpart A, FCL.055, Paragraph (a) (OJ L 311, 25.11.2011, p.1)}

Annex I stipulates the requirement of an effective face-to-face communication in Appendix I of Annex I.\footnote{Convention on International Civil Aviation, Annex I, Appendix I, Paragraph 2}

Both law regimes generally require a language knowledge on Expert Level. The European Union follows the recommendation put forward by Annex I in 1.2.9.6 by requiring a re-evaluation for the level “Operational Level” and “Extended Level” every four and six years respectively\footnote{Commission Regulation (EU) No.1178/2011 of 03 November 2011, Subpart A, FCL.055, Paragraph (c) (OJ L 311, 25.11.2011, p.1)}.

While Annex I recommends a re-evaluation for “Operational Level” after at least three years, Regulation 1178/2011 is a bit less strict by requiring a re-evaluation every four years. This does not stand in conflict with Annex I as 1.2.9.6 is a recommendation not a provision\footnote{Convention on International Civil Aviation, Annex I, Paragraph 1.2.9.6}.

The European Union essentially follows the recommendation but also slightly lowers the standards in this particular instance.


The language proficiency requirements in Annex I are those of the English Language\footnote{Convention on International Civil Aviation, Annex I, Attachment A}.

Regulation 1178/2011 puts forward that a holder of a pilot licence shall not exercise their privileges unless they have a language proficiency endorsement of either English or the language used for radio communications involved in the flight\footnote{Commission Regulation (EU) No.1178/2011 of 03 November 2011, Annex I, Subpart A, FCL.055, Paragraph (a) (OJ L 311, 25.11.2011, p.1)}.

Theoretically, this would mean that Regulation 1178/2011 also permits a language other than English as long as it is used for the radio communications involved in the flight. Practically this is not feasible as all aeronautical communication is handled in English, which consequently means that the language used for the radio communication during a flight...
is English.
If a Member State of the European Union allowed pilots to fly with a language other than English, it would mean lowering the standards below the standards established by Annex I and the licence of those pilots would not be recognised by other countries.

\[f. \text{Medical Certificate/Medical Assessment Class 2}\]

Both law regimes require proof of the medical fitness of the applicant. This medical fitness is evaluated in Medical Assessments. While Annex I knows three types of Medical Assessments (Class 1, Class 2, Class 3), Regulation 1178/2011 establishes a Class 1, Class 2 as well as a LAPL (Light Aircraft Pilot Licence) Medical Certificate.
For the successful application for a PPL (A) both require at least a Medical Assessment/Certificate Class 2.
The specific requirements for the medical examination are established in 6.4.2 of Annex I to the Chicago Convention and Section 2 of Annex IV to Regulation 1178/2011.

\[1.2.5 \text{Validity of Licences}\]

The period of validity of a Medical Assessment shall begin on the day the medical examination is performed. The duration of the period of validity shall be in accordance with the provisions of 1.2.5.2 (1.2.4.3)

(...) a Medical Assessment issued in accordance with 1.2.4.6 and 1.2.4.7. shall be valid from the date of the medical examination for a period not greater than:

60 months for the private pilot licence – aeroplane, airships (...) (1.2.5.2)

The period of validity of a Medical Assessment may be extended, at the discretion of the Licensing Authority, up to 45 days (1.2.4.3.1)
The periods of validity of a Medical Assessment may be reduced when clinically indicated.  
(1.2.5.2.1)

When the holders of a private pilot licences – aeroplane, airship (…) have passed their 40th birthday, the period of validity specified in 1.2.5.2 shall be reduced to 24 months.  
(1.2.5.2.4)

Recommendation – When the holders of private pilot licences – aeroplane, airship (…) have passed their 50th birthday, the period of validity specified in 1.2.5.2 should be further reduced to 12 months (1.2.5.2.5)

MED.A.045

(a) Validity

(…)  

(3) Class 2 medical certificates shall be valid for a period of:

i. 60 months until the licence holder reaches the age of 40. A medical certificate issued prior to reaching the age of 40 shall cease to be valid after the licence holder reaches the age of 42

ii. 24 months between the age of 40 and 50. A medical certificate issued prior to reaching the age of 50 shall cease to be valid after the licence holder reaches the age of 51; and

iii. 12 months after the age of 50.

Both law regimes establish the same validity periods for medical assessments only the wording is slightly different. Regulation 1178/2011 follows the Recommendation 1.2.5.2.5 in Annex I by reducing the validity of the medical certificate to 12 months after the age of 50. Regulation 1178/2011 also goes a step further by regulating when a licence shall cease to be valid after the licence holder has reached a certain age. This is insofar preferable as it also includes cases in which a medical certificate is renewed shortly prior to reaching one of the age restrictions. This makes sense because according to both regimes

the validity period shall be reduced to 24 months upon reaching the age of 40. Before that the validity period is 60 months, in other words three years. If someone renewed their licence shortly prior to their 40th birthday they could essentially hold that very licence until shortly prior to their 43rd birthday. Regulation 1178/2011 makes this impossible by stipulating that the validity of a medical examination ceases to exist upon reaching the 42nd birthday. The same applies to medical examinations issued prior the 50th birthday of a licence holder.\textsuperscript{58}

Annex I mandates when the validity period of a Medical Assessment shall begin (on the day the medical examination is performed)\textsuperscript{59}. Regulation 1178/2011 does not mention a beginning of the validity period of medical certificates. It only speaks of the validity periods in general\textsuperscript{60}. Since all Member States of the European Union are Contracting States of the Chicago Convention, those two law regimes have to be read together. Consequently, since Regulation 1178/2011 does not regulate the beginning of the validity period of medical certificates, the 28 Member States have to follow their obligations under Annex I and use the day of the medical examination as the starting point of the validity period of medical certificates. It has to be noted that the EASA issued in “Acceptable Means of Compliance and Guidance Material to Part – MED” a time limitation which should commence on the day of the examination therefore making sure that the Member States follow their obligations under Annex I and replacing the absent validity period of Regulation 1178/2011 with a binding validity period.\textsuperscript{61}

Annex I give the respective Licensing Authority the possibility to extend the validity period of a Medical Certificate up to 45 days. Nothing similar can be found in Regulation 1178/2011. Pursuant to 1.2.4.3.1 this falls under the discretion of the Licensing Authority. They may do that but they are not obliged to do it, which consequently means that Regulation 1178/2011 does not stand in conflict with Annex I.


\textsuperscript{59} Convention on International Civil Aviation, Annex I, Paragraph 1.2.4.3.


\textsuperscript{61} EASA, Acceptable Means of Compliance and Guidance Material to Part.MED (2011), p.8 URL: https://www.easa.europa.eu/system/files/dfu/AMC%20and%20GM%20on%20the%20medical%20certification%20of%20pilots%20and%20medica...
1.2.6 Decrease in medical fitness

Holders of licences provided for in this Annex shall not exercise the privileges of their licences and related ratings at any time when they are aware of any decrease in their medical fitness which might render them unable to safely and properly exercise these privileges (1.2.6.1)

**Recommendation** - States should ensure that license holders are provided with clear guidelines on medical conditions that may be relevant to flight safety and when to seek clarification or guidance from medical examiner or Licensing Authority. (1.2.6.1.1)

**Recommendation** – Each Contracting State should, as far as practicable, ensure that licence holders do not exercise the privileges of their licences and related ratings during any period in which their medical fitness has, from any cause, decreased to an extend that would have prevented the issue or renewal of their Medical Assessment (1.2.6.1.2)

**MED.A.020 – Decrease in medical fitness**

(a) Licence holders shall not exercise the privileges of their licence and related ratings or certificates at any time when they:

1. Are aware of any decrease in their medical fitness which might render them unable to safely exercise those privileges;

2. Take or use any prescribed or non-prescribed medication which is likely to interfere with the safe exercise of the privileges of the applicable licence;

3. Receive any medical, surgical or other treatment that is likely to interfere with flight safety.

(b) In addition, licence holders shall, without undue delay, seek aero-medical advise when they:

1. Have undergone a surgical operation or invasive procedure;

2. Have commenced the regular use of any medication;

3. Have suffered any significant personal injury involving incapacity to
function as a member of the flight crew;
(4) Have been suffering from any significant illness involving incapacity to function as a member of the flight crew;
(5) Are pregnant;
(6) Have been admitted to hospital or medical clinic;
(7) First require correcting lenses.

(c) In these cases:
(1) Holders of Class 1 and Class 2 medical certificates shall seek the advice on an AeMC or AME. The AeMC or AME shall assess the medical fitness of the licence holder and decide whether they are fit to resume the exercise of their privileges; (...)
6.2.1 General

An applicant for a Medical Assessment issued in accordance with the terms of 1.2.4.1 shall undergo a medical examination based on the following requirements:

a) physical and mental;
b) visual and colour perception; and
c) hearing

6.2.2 Physical and mental requirements

An applicant for any class of Medical Assessment shall be required to be free from:

a) any abnormality, congenital or acquired; or
b) any active, latent, acute or chronic disability; or
c) any wound, injury or sequelae from operation; or
d) any effect or side-effect of any prescribed or non-prescribed therapeutic, diagnostic or preventive medication taken;

such as would entail a degree of functional incapacity which is likely to interfere with the safe operation of an aircraft or with the safe performance of duties.

MED.B.005 General

(a) Applicants for a medical certificate shall be free from any:

(1) abnormality, congenital or acquired;
(2) active, latent, acute or chronic disease or disability
(3) wound, injury or sequelae from operation;
(4) effect or side effect of any prescribed or non-prescribed therapeutic, diagnostic or preventive medication taken;

that would entail a degree of functional incapacity which is likely to interfere with the safe exercise of the privileges of the applicable licence or could render the applicant likely to become suddenly unable to exercise the privileges of the licence safely.
(b) (...)

(c) In cases where the decision on medical fitness of an applicant for a Class 2 medical certificate is referred to the licensing authority, this authority may delegate such a decision to an AeMC or an AME, except in cases where an OSL or OPL is needed.

The wording of Annex I (6.2.2) and Regulation 1178/2011 (MED.B.005) is the same. The only difference is the headline. While Annex I under “General” establishes principles that should form part of every medical examination, Regulation 1178/2011 implements the “Physical and mental requirements” of Annex I (6.2.2) as “General” in MED.B.005. Regulation 1178/2011 makes sure to respect the principles of 6.2.1 by implementing them into the requirements for a Medical Assessment. By doing so the European Union makes sure that its Member States are able to maintain their obligations under Annex I. In other words: Regulation 1178/2011 uses all the medical requirements of Annex I, implements them into the European Legal Order and, as mentioned below, adapts and improves them accordingly.

6.4 Class 2 Medical Assessment

6.4.2. Physical and mental requirements

The medical examination shall be based on the following requirements. The applicant shall not suffer from any disease or disability which could render that applicant likely to become suddenly unable to either operate an aircraft safely or to perform assigned duties safely. (6.4.2.1)

The applicant shall have no established medical history or clinical diagnosis of:

a) an organic mental disorder;

b) a mental or behavioural disorder due to psychoactive substance use; this includes dependence syndrome induced by alcohol or other psychoactive substances;

c) schizophrenia or schizotypal or delusional disorder;

d) a mood (affective) disorder;

e) a neurotic, stress-related or somatoform disorder;
f) a behavioural syndrome associated with physiological disturbances or physical factors;
g) a disorder of adult personality or behaviour, particularly, if manifested by repeated overt acts;
h) mental retardation;
i) a disorder of physiological development;
j) a behavioural or emotional disorder, with onset in childhood or adolescence; or
k) a mental disorder not otherwise specified

such as might render the applicant unable to safely exercise the privileges of the licence applied for or held.

MED.B.055 Psychiatry

(a) Applicants shall have no established medical history or clinical diagnosis of any psychiatric disease or disability, condition or disorder, acute or chronic, congenital or acquired, which is likely to interfere with the safe exercise of the privileges of the applicable licence(s)

(b) Applicants with a mental or behavioural disorder due to alcohol or other abuse of psychotropic substances shall be assessed as unfit pending recovery and freedom from substance use subject to satisfactory psychiatric evaluation after successful treatment. (...) Fitness of Class 2 applicants shall be assessed in consultation with the licensing authority.

(c) Applicants with psychiatric condition such as:
   (1) mood disorder;
   (2) neurotic disorder;
   (3) personality disorder;
   (4) mental or behavioural disorder;

shall undergo satisfactory psychiatric evaluation before a fit assessment can be made.

(d) Applicants with a history of a single or repeated acts of deliberate self-harm shall be assessed as unfit. Applicants shall undergo a satisfactory psychiatric evaluation
before a fit assessment can be considered.

(e) Aero-medical assessment:

(1) (...)

(2) Fitness of Class 2 applicants with one of the conditions detailed in (b), (c) or (d) above shall be assessed in consultation with the licensing authority.

(f) Applicants with an established history or clinical diagnosis of schizophrenia, schizotypal or delusional disorder shall be assessed as unfit.

**MED.B.060 Psychology**

(a) Applicants shall have no established psychological deficiencies, which are likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) A psychological evaluation may be required as part of, or complementary to, a specialist psychiatric or neurological examination.

It is noteworthy that Annex I is stricter in terms of a fit evaluation regarding the physical and mental requirements of an applicant. While according to Annex I no such disability must be present, Regulation 1178/2011 allows a fit assessment later on pending a successful evaluation and treatment of the condition. 66

This approach by the EU, to allow a fit assessment after a second aero-medical evaluation and successful treatment, can be found throughout the Medical Examination Section of Regulation 1178/2011 (see below).

The applicant shall have no established medical history or clinical diagnosis of any of the following:

a) a progressive or non-progressive disease of the nervous system, the effects of which are likely to interfere with the safe exercise of the applicant’s licence and rating privileges;

b) epilepsy

c) any disturbance of consciousness without satisfactory medical explanation of cause

(6.4.2.3)

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The applicant shall not have suffered any head injury, the effects of which are likely to interfere with the safe exercise of the applicant’s licence and rating privileges. (6.4.2.4)

**MED.B.065 Neurology**

(a) Applicants shall have no established medical history or clinical diagnosis of any neurological condition which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) Applicants with an established history or clinical diagnosis of:

1. epilepsy;
2. recurring episodes of disturbance of consciousness of uncertain cause;

shall be assessed as unfit.

(c) Applicants with an established history or clinical diagnosis of:

1. epilepsy without recurrence after age 5;
2. epilepsy without recurrence and off all treatment for more than 10 years;
3. epileptiform EEG abnormalities and focal slow waves;
4. progressive or non-progressive disease of the nervous system;
5. a single episode of disturbance of consciousness of uncertain cause;
6. loss of consciousness after head injury;
7. penetrating brain injury;
8. spinal or peripheral nerve injury;

shall undergo further evaluation before a fit assessment can be considered. (…) Fitness of Class 2 applicants shall be assessed in consultation with the licensing authority.

The requirements in both legal regimes are the same but Regulation 1178/2011 goes a step further yet again by allowing, under certain circumstances, a fit assessment after further evaluation and consultation with the licensing authority. It has to be pointed out though that Annex I does not allow a fit assessment in the case of the applicant suffering from epilepsy, Regulation 1178/2011 does. It allows a fit assessment in the case of epilepsy without recurrence after age 5 and epilepsy without recurrence and off all treatment for

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more than 10 years\textsuperscript{68}.

The applicant shall not have suffered any abnormality of the heart, congenital or acquired, which is likely to interfere with the safe exercise of the applicant’s licence and rating privileges. (6.4.2.5)

An applicant who has undergone coronary bypass grafting or angioplasty (with or without stenting) or other cardiac intervention or who has a history of myocardial infarction or who suffers from any potentially incapacitating cardiac condition shall be assessed as unfit unless the applicant’s cardiac condition has been investigated and evaluated in accordance with the best medical practice and is assessed not likely to interfere with the safe exercise of the applicant’s licence or rating privileges. (6.4.2.5.1)

An applicant with an abnormal cardiac rhythm shall be assessed as unfit unless the cardiac arrhythmia has been investigated and evaluated in accordance with the best medical practice and is assessed not likely to interfere with the safe exercise of the applicant’s licence or rating privileges. (6.4.2.5.2)

Electrocardiography shall form part of the heart examination for the first issue of a Medical Assessment after the age of 40. (6.4.2.6)

Electrocardiography shall be included in re-examination of applicants after the age of 50 no less than every two years. (6.4.2.6.1)

\textbf{Recommendation} – Electrocardiography should form part of the heart examination for the first issue of a Medical Assessment (6.4.2.6.2)

The systolic and diastolic blood pressures shall be within normal limits. (6.4.2.7)

The use of drugs for control of high blood pressure shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant’s licence and

There shall be no significant functional nor structural abnormality of the circulatory system. (6.4.2.8)

MED.B.010 Cardiovascular System

(a) Examination

(1) A standard 12-lead resting cardiogram (ECG) and report shall be completed on clinical indication, and:
   i. (...)
   ii. for a Class 2 medical certificate, at first examination after age 40 and then every 2 years after age 50.

(2) Extended cardiovascular assessment shall be required when clinically indicated.

(b) Cardiovascular System – General

(1) Applicants shall not suffer from any cardiovascular disorder which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(2) Applicants for a Class 1 medical certificate with any of the following conditions shall be assessed as unfit:
   i. aneurysm of the thoracic or supra-renal abdominal aorta, before or after surgery;
   ii. significant functional abnormality of any of the heart valves;
   iii. heart or heart/lung transplantation.

(3) Applicants for a Class 1 medical certificate with the established history or diagnosis of any of the following conditions shall be referred to the licensing authority:
   i. peripheral arterial disease before or after surgery;
   ii. aneurysm of the abdominal aorta, before or after surgery;
   iii. functionally insignificant cardiac valvular abnormalities;
   iv. after cardiac valve surgery;
   v. abnormality of the pericardium, myocardium, or endocardium;
vi. congenital abnormality of the heart, before or after corrective surgery;
vii. recurrent vasovagal syncope;
viii. arterial or venous thrombosis;
ix. pulmonary embolism;
x. cardiovascular condition requiring systemic anticoagulant therapy.

(4) Applicants for a Class 2 medical certificate with an established diagnosis of one of the conditions specified in (2) and (3) above shall be assessed by a cardiologist before a fit assessment can be considered in consultation with the licensing authority.

(c) Blood Pressure

(1) The blood pressure shall be recorded at each examination.
(2) The applicant’s blood pressure shall be within normal limits.

(3) (...) 

(4) The initiation of medication for the control of blood pressure shall require a period of temporary suspension of the medical certificate to establish the absence of significant side effects.

(d) Coronary Artery Disease

(1) Applicants for a Class 1 medical certificate with:

i. suspected myocardial ischaemia;

ii. asymptomatic minor coronary artery disease requiring no anti-anginal treatment;

shall be referred to the licensing authority and undergo cardiological evaluation to exclude myocardial ischaemia before a fit assessment can be considered.

(2) Applicants for a Class 2 medical certificate with any of the conditions detailed in (1) shall undergo cardiological evaluation before a fit assessment can be considered.

(3) Applicants with any of the following conditions shall be assessed as unfit:

i. myocardial ischaemia;
ii. symptomatic coronary artery disease;

iii. symptoms of coronary artery disease controlled by medication.

(4) (...) 

(5) Applicants for a Class 2 medical certificate who are asymptomatic following myocardial infarction or surgery for coronary artery disease shall undergo satisfactory cardiological evaluation before a fit assessment can be considered in consultation with the licensing authority. (...)

(e) Rhythm/Conduction Disturbances

(1) Applicants for a Class 1 medical certificate shall be referred to the licensing authority when they have any significant disturbance of cardiac conduction or rhythm, including any of the following:

i. disturbance of supraventricular rhythm, including intermittent or established sinoatrial dysfunction, atrial fibrillation and/or flutter and asymptomatic sinus pauses;

ii. complete left bundle branch block;

iii. Mobitz type 2 atrioventricular block;

iv. broad and/or narrow complex tachycardia;

v. ventricular pre-excitation;

vi. asymptomatic QT prolongation;

vii. Brugada pattern or electrocardiography

(2) Applicants for a Class 2 medical certificate with any of the conditions detailed in (1) shall undergo satisfactory cardiological evaluation before a fit assessment in consultation with the licensing authority can be considered.

(3) Applicants with any of the following:

i. incomplete bundle branch block;

ii. complete right bundle branch block;

iii. stable left axis deviation;

iv. asymptomatic sinus bradycardia;

v. asymptomatic sinus tachycardia;

vi. asymptomatic isolated uniform supra-ventricular or ventricular
ectopic complexes;

vii. first degree atrioventricular block;

viii. Mobitz type 1 atrioventricular block;

may be assessed as fit in the absence of any other abnormality and subject to satisfactory cardiological evaluation.

(4) Applicants with a history of:

i. ablation therapy;

ii. pacemaker implantation;

shall undergo satisfactory cardiovascular evaluation before a fit assessment can be considered. (...) Applicants for a Class 2 medical certificate shall be assessed in consultation with the licensing authority.

(5) Applicants with any of the following conditions shall be assessed as unfit:

i. symptomatic sinoatrial disease;

ii. complete atrioventricular block;

iii. symptomatic QT prolongation;

iv. an automatic implantable defibrillating system;

v. a ventricular anti-tachycardia pacemaker.

Regulation 1178/2011 is more detailed and provides a clear list of diseases, malfunctions as well as treatments related to the cardiovascular system\(^{69}\). It covers all the requirements established by Annex I and consequently makes sure that the Member States meet all their obligations as Contracting States under Annex I.

There shall be no disability of the lungs or any active disease of the structures of the lungs, mediastinum or pleura likely to result in incapacitating symptoms during normal or emergency operations. (6.4.2.9)

**Recommendation.**- Chest radiography should form part of the initial and periodic examinations in cases where asymptomatic pulmonary disease can be expected. (6.4.2.9)

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Applicants with chronic obstructive pulmonary disease shall be assessed as unfit unless the applicant’s condition has been investigated and evaluated in accordance with the best medical practice and is assessed not likely to interfere with the safe exercise of the applicant’s licence or rating privileges. (6.4.2.10)

Applicants with asthma causing significant symptoms or likely to cause incapacitating symptoms during normal or emergency operations shall be assessed as unfit. (6.4.2.11)

The use of drugs for control of asthma shall be disqualifying except for those drugs, the use of which is compatible with the safe exercise of the applicant’s licence and rating privileges. (6.4.2.11.1)

Applicants with active pulmonary tuberculosis shall be assessed as unfit. (6.4.2.12)

Applicants with quiescent or healed lesions, known to be tuberculous or presumably tuberculous in origin, may be assessed as unfit. (6.4.2.12.1)

MED.B.015 Respiratory System

(a) Applicants with significant impairment of pulmonary function shall be assessed as unfit. A fit assessment may be considered once pulmonary function has recovered and is satisfactory.

(b) (...)

(c) For Class 2 medical certificate, applicants are required to undertake pulmonary function tests on clinical indication

(d) Applicants with a history or established diagnosis of:

   (1) asthma requiring medication;
   (2) active inflammatory disease of the respiratory system;
   (3) active sarcoidosis;
   (4) pneumothorax;
   (5) sleep apnoea syndrome;
   (6) major thoracic surgery;
   (7) pneumonectomy;
shall undergo respiratory evaluation with a satisfactory result before a fit assessment can be considered. Applicants with an established diagnosis of the conditions specified in (3) and (5) shall undergo satisfactory cardiological evaluation before a fit assessment can be considered.

(e) Aero-medical assessment:

(1) (...)

(2) applicants for a Class 2 medical certificate with any of the conditions detailed in (d) above shall be assessed in consultation with the licensing authority.

(f) (...)

Both legal regimes set the same standards while Regulation 1178/2011 is more specific in regards of establishing examples of diseases of the respiratory system. Regulation 1178/2011 does not expressly mention tuberculosis whereas Annex I in 6.4.2.12 and 6.4.2.12.1 does. This does not necessarily stand in conflict with the obligations under Annex I since Regulation 1178/2011 clearly stipulates that applicants with a significant impairment of the pulmonary function shall be assessed as unfit. Tuberculosis is without doubt a significant impairment of the pulmonary function.

Applicants shall be completely free from those hernias that might give rise to incapacitating symptoms (6.4.2.13)

Applicants with the significant impairment of the function of the gastrointestinal tract or its adnexa shall be assessed as unfit. (6.4.2.13.1)

Applicants with sequelae of disease of or surgical intervention on any part of the digestive tract or its adnexa, likely to cause incapacitation in flight, in particular any obstruction due to stricture or compression, shall be assessed as unfit. (6.4.2.14)

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71 Convention on International Civil Aviation, Annex I, Paragraph 6.4.2.12 and 6.5.2.12.1
Recommendation. - An applicant who has undergone a major surgical operation on the biliary passages or the digestive tract or its adnexa with a total or particular or partial excision or a diversion of any of these organs should be assessed as unfit until such time as the medical assessor, having access to the details of the operation concerned, considered that the effects of the operation are not likely to cause incapacitation in flight. (6.4.2.14.1)

MED.B.020 Digestive System

(a) Applicants shall not possess any functional or structural disease of the gastro-intestinal tract or its adnexa which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) Applicants with any sequelae of disease or surgical intervention in any part of the digestive tract or its adnexa likely to cause incapacitation in flight, particular any obstruction due to stricture or compression shall be assessed as unfit.

(c) Applicants shall be free from herniae that might give rise to incapacitating symptoms.

(d) Applicants with disorders of the gastro-intestinal system including:
   (1) recurrent dyspeptic disorder requiring medication;
   (2) pancreatitis;
   (3) symptomatic gallstones;
   (4) an established diagnosis or history of chronic inflammatory bowel disease;
   (5) after surgical operation on the digestive tract or its adnexa, including surgery involving total or partial excision or a diversion of any of these organs;
   shall be assessed as unfit. A fit assessment may be considered after the successful treatment or full recovery after surgery and subject to satisfactory gastroenterological evaluation.

Regulation 1178/2011 implements almost the exact wording of Annex I into European Law. As usual it goes a step further by establishing exact parameters in form of examples as to which medical conditions are deemed to be unfit for flying. Therefore giving the 28

Member States a clear list of medical conditions that rule out a fit assessment.

*Applications with metabolic, nutritional or endocrine disorders that are likely to interfere with the safe exercise of their licence and rating privileges shall be assessed as unfit (6.4.2.15)*

*Applications with insulin-treated diabetes mellitus shall be assessed as unfit. (6.4.2.16)*

*Applications with non-insulin-treated diabetes mellitus shall be assessed as unfit unless the condition is shown to be satisfactory controlled by diet alone or by diet combined with oral anti-diabetic medication, the use of which is compatible with the safe exercise of the applicant’s licence and rating privileges. (6.4.2.16.1)*

**MED.B.025 Metabolic and Endocrine Systems**

(a) *Applicants shall not possess any functional or structural metabolic, nutritional or endocrine disorder which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).*

(b) *Applicants with metabolic, nutritional or endocrine dysfunction may be assessed as fit subject to demonstrated stability of the condition and satisfactory aero-medical evaluation.*

(c) *Diabetes mellitus*

   (1) *Applicants with diabetes mellitus requiring insulin shall be assessed as unfit.*

   (2) *Applicants with diabetes mellitus not requiring insulin shall be assessed as unfit unless it can be demonstrated that blood sugar control has been achieved.*

(d) *Aero-medical assessment:*

   (1) (...)

   (2) *fitness of Class 2 applicants requiring medication other than insulin for blood sugar control shall be assessed in consultation with the licensing authority.*

Regulation 1178/2011 covers all the requirements put forward by Annex I. The only noteworthy difference is that Annex I requires an unfit assessment for metabolic,
nutritional or endocrine disorders that are likely to interfere with the safe exercise of the privileges while Regulation 1178/2011 allows a fit assessment pending stability of the condition and satisfactory aero-medical evaluation.\(^{74}\)

*Applicants with renal or genitourinary disease shall be assessed as unfit unless adequately investigated and their condition found unlikely to interfere with the safe exercise of their licence and rating privileges. (6.4.2.18)*

*Urine examination shall form part of the medical examination and abnormalities shall be adequately investigated. (6.4.2.18.1)*

*Applicants with sequelae of disease of, or surgical procedures on, the kidneys or the genitourinary tract, in particular obstructions due to stricture or compression, shall be assessed as unfit unless the applicant’s condition has been investigated and evaluated in accordance with the best medical practice and is assessed not likely to interfere with the safe exercise of the applicant’s licence or rating privileges. (6.4.2.19)*

*Applicants who have undergone nephrectomy shall be assessed as unfit unless the condition is well compensated (6.4.2.19.1)*

**MED.B.035 Genitourinary System**

(a) *Applicants shall not possess any functional or structural disease of the renal or genito-urinary system or its adnexa which is likely to interfere with the safe exercise of the privileges of the applicable licence(s)*

(b) *Urinalysis shall form part of every aero-medical examination. The urine shall contain no abnormal element considered to be of pathological significance.*

(c) *Applicants with any sequela of disease or surgical procedures on the kidneys or the urinary tract likely to cause incapacitation, in particular any obstruction due to stricture or compression shall be assessed as unfit.*

(d) *Applicants with genitourinary disorder, such as:*

   a. *renal disease*

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b. one or more urinary calculi, or history of renal colic; may be assessed as fit subject to satisfactory renal/urological evaluation

(e) Applicants who have undergone a major surgical operation in the urinary apparatus involving a total of partial excision or a diversion of its organs shall be assessed as unfit and be re-assessed after a full recovery before a fit assessment can be considered. (...)

Both legal regimes put forward the same requirements. Regulation 1178/2011 in accordance with Annex I adapts almost the same wording as found in Annex I.

Applicants who are seropositive for human immunodeficiency virus (HIV) shall be assessed as unfit unless the applicant’s condition has been investigated and evaluated in accordance with the best medical practice and is assessed as not likely to interfere with the safe exercise of the applicant’s licence or rating privileges. (6.4.2.20)

MED.B.040 Infectious Disease

(a) Applicants shall have no established medical history or clinical diagnosis of any infectious disease which is likely to interfere with the safe exercise of the privileges of the applicable licence held.

(b) Applicants who are HIV positive may be assessed as fit subject to satisfactory aero-medical evaluation. (...)

Both legal regimes require an unfit assessment in case of HIV pending a satisfactory aero-medical evaluation. While Annex I only speaks of HIV, Regulation 1178/2011 rules out all infectious diseases that are likely to interfere with the safe exercise of the rating privileges. It therefore extends the scope beyond Annex I and HIV and consequently sets higher standards.75

Applicants who are pregnant shall be assessed as unfit unless obstetrical evaluation and continued medical supervision indicate a low-risk uncomplicated pregnancy (6.4.2.21)

Recommendation.- For applicants with a low-risk uncomplicated pregnancy, evaluated and supervised in accordance with 6.4.2.21, the fit assessment should be limited to the period from the end of the 12th week until the end of the 26th week of gestation. (6.4.2.21.1)

Following confinement or termination of pregnancy, the applicant shall not be permitted to exercise the privileges of her licence until she has undergone re-evaluation in accordance with the best medical practice and it has been determined that she is able to safely exercise the privileges of her licence and ratings. (6.4.2.22)

MED.B.045 Obstetrics and Gynaecology

(a) Applicants shall not possess any functional or structural obstetric or gynaecological condition which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) Applicants who have undergone a major gynaecological operation shall be assessed as unfit until full recovery.

(c) Pregnancy

(1) In the case of pregnancy, if the AeMC or AME considers that the licence holder is fit to exercise her privileges, he/she shall limit the validity period of the medical certificate to the end of the 26th week of gestation. After this point, the certificate shall be suspended. The suspension shall be lifted after full recovery following the end of the pregnancy.

(2) (...)

Regulation 1178/2011 adopts the rules put forward by Annex I in regards of pregnancy. Both legal regimes allow a fit assessment of pregnant women until the 26th week. In addition to that, Regulation 1178/2011 also includes functional or structural obstetric or gynaecological conditions, which are likely to interfere with the safe exercise of the rating privileges76.

The applicant shall not possess any abnormality of the bones, joints, muscles, tendons or related structures which is likely to interfere with the safe exercise of the applicant’s

licence and rating privileges (6.4.2.23)

MED.B.050 Musculoskeletal System

(a) Applicants shall not possess any abnormality of the bones, joints, muscles or tendons, congenital or acquired which is likely to interfere with the safe exercise of the privileges of the applicable licence(s)
(b) An applicant shall have sufficient sitting height, arm and leg length and muscular strength for the safe exercise of the privileges of the applicable licence(s)
(c) An applicant shall have satisfactory functional use of the musculoskeletal system to enable the safe exercise of the privileges of the applicable licence(s). Fitness of the applicants shall be assessed in consultation with the licensing authority.

Regulation 1178/2011 is more specific than Annex I. It adopts the wording of Annex I MED.B.050 but also includes sitting height, arm and leg length and muscular strength as well as satisfactory functional use of the musculoskeletal system.\footnote{Commission Regulation (EU) No.1178/2011 of 03 November 2011, Annex IV, Subpart B, Section 2, MED.B.050, Paragraph (b) (OJ L 311, 25.11.2011, p.1)}

The applicant shall not possess any abnormality or disease of the ear or related structures which is likely to interfere with the safe exercise of the applicant’s licence and rating privileges. (6.4.2.24)

There shall be:

a) no disturbance of the vestibular function;
b) no significant dysfunction of the Eustachian tubes; and
c) no unhealed perforation of the tympanic membranes (6.4.2.25)

A single dry perforation of the tympanic membrane need not render then applicant unfit. (6.4.2.25.1)
There shall be:

a) no nasal obstruction; and

b) no malformation nor any disease of the buccal cavity or upper respiratory tract which is likely to interfere with the safe exercise of the applicant’s licence and rating privileges. (6.4.2.26)

Applicants with stuttering and other speech defects sufficiently severe to cause impairment of speech communication shall be assessed as unfit. (6.4.2.27)

6.4.4 Hearing requirements

Applicants who are unable to hear an average conversational voice in a quiet room, using both ears, at a distance of 2 m from the examiner with the back turned to the examiner, shall be assessed as unfit (6.4.4.1)

When tested by pure-tone audiometry, an applicant with a hearing loss, in either ear separately, of more than 35 dB at any of the frequencies 500, 1000 or 2000 Hz, or more than 50 dB at 3000 Hz, shall be assessed as unfit. (6.4.4.2)

Recommendation.- An applicant who does not meet the requirements in 6.4.4.1 or 6.4.4.2 should undergo further testing in accordance with 6.3.4.1.1

An applicant with a hearing loss greater than the above may be declared fit provided that the applicant has normal hearing performance against a background noise that reproduces or simulates the masking properties of the flight deck noise upon speech and beacon signals (6.3.4.1.1)

6.2.5 Hearing test requirements

Contracting States shall use such methods of examination as will guarantee reliable testing of hearing. (6.2.5.1)

Applicants shall be required to demonstrate a hearing performance sufficient for the safe exercise of their licence and rating privileges. (6.2.5.2)
Recommendation.-Applicants for Class 2 Medical Assessment should be tested by pure-tone audiometry at first issue of the Assessment and, after the age of 50 years, not less than once every two years. (6.2.5.5)

At medical examinations, other than those mentioned in (...) and 6.2.5.5, where audiometry is not performed, applicants shall be tested in a quiet room by whispered and spoken voice tests. (6.2.5.6)

MED B.080 Otorhino-laryngology

(a) Applicants shall not possess any abnormality of the function of the ears, nose, sinuses or throat, including oral cavity, teeth and larynx, or any active pathological condition, congenital or acquired, acute or chronic, or any sequelae of surgery or trauma which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) Hearing shall be satisfactory for the safe exercise of the privileges of the applicable licence(s).

(c) Examination

   (1) Hearing shall be tested at all examinations.

      i. In the case of Class 1 medical certificates and Class 2 medical certificates, when instrument rating is to be added to the licence held, hearing shall be tested with pure tone audiometry at the initial examination and, at subsequent revalidation or renewal examinations, every 5 years until the age 40 and every 2 years thereafter.

      ii. When tested on a pure-tone audiometer, initial applicants shall not have hearing loss of more than 35 dB at any of the frequencies 500, 1000 or 2000 Hz, or more than 50 dB at 3000 Hz, in either ear separately. Applicants for revalidation or renewal, with greater hearing loss shall demonstrate satisfactory functional hearing ability.

      iii. Applicants with hypoacusis shall demonstrate satisfactory functional hearing ability.
(d) Applicants for a Class 1 medical certificate with:

(1) (...)

(7) significant disorder of speech and voice

(e) Aero-medical assessment:

(1) (...)

(2) fitness of Class 2 applicants with the disturbance of vestibular function shall be assessed in consultation with the licensing authority.

Regulation 1178/2011 requires the applicants to undergo pure-tone audiometry testing in the case of a Class 1 Medical Certificate or Class 2 Medical Certificate when an instrument rating is added. This consequently means that for a Class 2 Medical Certificate without an instrument rating the hearing shall be satisfactory for the safe exercise of the privileges of the applicable licence.78

Regulation 1178/2011 itself does not establish any guidelines as to when the hearing is satisfactory and how such satisfactory hearing is tested.

Annex I does know testing by pure-tone audiometry. However it does not dictate when the this method of testing shall be used79. Apart from pure-tone audiometry Annex I also allows two rather rustic ways of testing the hearing requirements of applicants. It stipulates in 6.4.4.1 that an applicant who is unable to hear an average conversational voice in a quiet room, using both ears, at a distance of 2 meters from the examiner with the back turned to the examiner, shall be assessed as unfit. Annex I does allow a fit assessment even when the initial requirements are not met provided that the applicant shows a normal hearing performance against a background noise that reproduces or simulates the masking properties of the flight deck noise upon speech and beacon signals80.

Since Regulation 1178/2011, apart from pure-tone audiometry, does not know any other method of testing the hearing performance of an applicant. However, the EASA established in the “Acceptable Means of Compliance and Guidance Material to Part-MED” the same testing methods as Annex I.81 When tested by pure-tone audiometry both legal regimes set

79 Convention on International Civil Aviation, Annex I, Paragraph 6.4.4.2
80 Convention on International Civil Aviation, Annex I, Paragraph 6.4.4.1 and 6.3.4.1.1
the same parameters\(^{82}\).

Annex I expressly stipulates that applicants with stuttering and other speech defects that are sever enough to interfere with communication shall be assessed as unfit\(^{83}\). Regulation 1178/2011 mentions a significant disorder of speech and voice only in case of applicants for a Medical Certificate Class 1.\(^{84}\)

6.4.3 Visual requirements

The medical examination shall be based on the following requirements. The function of the eye and their adnexa shall be normal. There shall be no active pathological condition, acute or chronic, nor any sequelae of surgery or trauma of the eyes or their adnexa likely to reduce proper visual function to an extent that would interfere with the safe exercise of the applicant’s licence and rating privileges (6.4.3.1)

Distant visual acuity with or without correction shall be 6/12 or better in each eye separately, and binocular visual acuity shall be 6/9 or better. No limits apply to uncorrected visual acuity. Where this standard of visual acuity can be obtained only with correcting lenses, the applicant may be assessed as fit provided that:

a) such correcting lenses are worn during the exercise of the privileges of the licence or rating applied for or held; and

b) in addition, a pair of suitable correcting spectacles is kept readily available during the exercise of the privileges of the applicant’s licence. (6.4.3.2)

Applicants may use contact lenses to meet this requirement provided that:

a) the lenses are monofocal and non-tinted;

b) the lenses are well tolerated; and

c)a pair of suitable correcting spectacles is kept readily available during the exercise of the licence privileges. (6.4.3.2.1)


\(^{83}\) Convention on International Civil Aviation, Annex I, Paragraph 6.4.2.27

Applicants with a large refractive error shall use contact lenses or high-index spectacles lenses. (6.4.3.2.2)

Recommendation.- Applicants whose uncorrected distant visual acuity in either eye is worse than 6/60 should be required to provide a full ophthalmic report prior to initial Medical Assessment and every five years thereafter. (6.4.3.2.3)

Applicants who have undergone surgery affecting the refractive status of the eye shall be assessed as unfit unless they are free from those sequelae which are likely to interfere with the safe exercise of their licence and rating privileges. (6.4.3.3)

The applicant shall have the ability to read, while wearing the correcting lenses, if any, required by 6.4.3.2, the N5 chart or its equivalent at a distance selected by that applicant in the range of 30 to 50 centimetres. If this requirement is met only by the use of near correction, the applicant may be assessed as fit provided that this near correction is added to the spectacle correction already prescribed in accordance with 6.4.3.2; if no such correction is prescribed, a pair of spectacles for near use shall be kept readily available during the exercise of the privileges of the licence. When near correction is required, the applicant shall demonstrate that one pair of spectacles is sufficient to meet both distant and near visual requirements. (6.4.3.4)

When near correction is required in accordance with this paragraph, a second pair of near-correction spectacles shall be kept available for immediate use. (6.4.3.4.1)

The applicant shall be required to have normal fields of vision (6.4.3.5)

The applicant shall be required to have normal binocular function (6.4.3.6)

Reduced stereopsis, abnormal convergence not interfering with near vision, and ocular misalignment where the fusional reserves are sufficient to prevent asthenopia and diplopia need not be disqualifying (6.4.3.6.1)
MED.B.070 Visual System

(a) Applicants shall not possess any abnormality of the function of the eyes or their adnexa or any active pathological condition, congenital or acquired, acute or chronic, or any sequelae of eye surgery or trauma, which is likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) Examination
   (1) (…)
   (2) For a Class 2 medical certificate:
      i. a routine eye examination shall form part of the initial and all revalidation and renewal examinations; and  
      ii. a comprehensive eye examination shall be undertaken when clinically indicated.

(c) Distant visual acuity, with or without correction, shall be:
   (1) (…)
   (2) in the case of Class 2 medical certificates, 6/12 (0.5) or better in each eye separately and visual acuity with both eyes shall be 6/9 (0.7) or better. An applicant with substandard vision in one eye may be assessed as fit in consultation with the licensing authority subject to satisfactory ophthalmic assessment.

(d) An applicant shall be able to read an N5 chart (or equivalent) at 30-50cm an an N14 chart (or equivalent) at 100cm, with correction, if prescribed.

(e) (…)

(f) Applicants who have undergone eye surgery may be assessed as fit subject to satisfactory ophthalmic evaluation.

(g) Applicants with a clinical diagnosis of keratoconus may be assessed as fit subject to a satisfactory examination by an ophthalmologist. (…)

(h) Applicants with:
   (1) astigmatism;
   (2) anisometropia;
   may be assessed as fit subject to satisfactory ophthalmic evaluation.

(i) Applicants with diplopia shall be assessed as unfit.

(j) Spectacles and contact lenses. If satisfactory visual function is achieved only with
the use of correction:

(1) (i) for distant vision, spectacles or contact lenses shall be worn whilst exercising the privileges of the applicable licence(s);
    (ii) for near vision, a pair of spectacles or contact lenses for near use shall be kept available during the exercise of the privileges of the licence;
(2) a spare set of similarly correcting spectacles shall be readily available for immediate use whilst exercising the privileges of the applicable licence(s);
(3) the correction shall provide optimal visual function, be well-tolerated and suitable for aviation purposes;
(4) if contact lenses are worn, they shall be for distant vision, monofocal, non-tinted and well tolerated;
(5) applicants with a large refractive error shall use contact lenses or high-index spectacle lenses;
(6) no more than one pair of spectacles shall be used to meet the visual requirements;
(7) Orthokeratological lenses shall not be used.

The visual requirements in both legal regimes are the same. Both mandate a visual acuity better than 6/12 and 6/9 and both allow correction by contact lenses. If a correction by contact lenses is necessary a pair of spectacles shall be kept readily available while using the licence privileges.

6.2.3 Visual acuity testing requirements

The methods in use for measurement of visual acuity are likely to lead to differing evaluations. To achieve uniformity, therefore, Contracting States shall ensure that equivalence in the methods of evaluation be obtained. (6.2.3.1)

Recommendation.-The following should be adopted for tests of visual acuity:

a) Visual acuity tests should be conducted in an environment with a level of illumination that corresponds to ordinary office illumination (30-60cd/m²).

b) Visual acuity should be measured by means of a series of Landolt rings or similar optotypes, placed at a distance from the applicant appropriate to
the method of testing adopted. (6.2.3.2)

Regulation 1178/2011 itself does not outline a procedure on how to test visual acuity. It follows Annex I in establishing the same visual acuity standards. The EASA published parameters for a testing procedure in the “Acceptable Means of Compliance and Guidance Material to Par-MED”

6.2.4 Colour perception requirements

Contracting States shall use such methods of examination as will guarantee reliable testing of colour perception. (6.2.4.1)

The applicant shall be required to demonstrate the ability to perceive readily those colours the perception of which is necessary for the safe performance of duties. (6.2.4.2)

The applicant shall be tested for the ability to correctly identify a series of pseudoisochromatic plates in daylight or in artificial light of the same colour temperature such as that provided by CIE standard illuminants C or D65 as specified by the International Commission on Illumination (CIE). (6.2.4.3)

An applicant obtaining a satisfactory result as prescribed by the Licensing Authority shall be assessed as fit. An applicant failing to obtain a satisfactory result in such a test shall be assessed as unfit unless able to readily distinguish the colours used in air navigation and correctly identify aviation coloured lights. Applicants who fail to meet these criteria shall be assessed as unfit except for Class 2 assessment with the following restriction: valid daytime only. (6.2.4.4)

Recommendation.- Sunglasses worn during the exercise of the privileges of the licence or rating held should be non-polarizing and of a neutral grey tint.

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MED.B.075 Colour Vision

(a) Applicants shall be required to demonstrate the ability to perceive readily the colours that are necessary for the safe performance of duties.

(b) Examination

(1) Applicants shall pass Ishihara test for the initial issue of a medical certificate

(2) Applicants who fail to pass in the Ishihara test shall undergo further colour perception testing to establish whether they are colour safe.

(c) (...) 

(d) In the case of Class 2 medical certificates, when the applicant does not have satisfactory perception of colours, his/her flying privileges shall be limited to daytime only.

Regulation 1178/2011 adopts the requirements established by Annex I. The Ishihara Test as outlined in MED.B.075 is the same procedure that is described in 6.2.4.3 of Annex I.

MED.B.085 Dermatology

Applicants shall have no established dermatological condition likely to interfere with the safe exercise of the privileges of the applicable licence(s) held.

MED.B.090 Oncology

(a) Applicants shall have no established primary or secondary malignant disease likely to interfere with the safe exercise of the privileges of the applicable licence(s).

(b) After treatment for a malignant disease applicants shall undergo satisfactory oncological evaluation before a fit assessment can be made. (...). Fitness of Class 2 applicants shall be assessed in consultation with the licensing authority.

(c) Applicants with an established history or clinical diagnosis of intracerebral malignant tumour shall be assessed as unfit.
It is noteworthy that Annex I does not deal with Dermatology and Oncology. Therefore, the European Union sets higher standards in this regard by extending the scope of the Medical Certificate and including Dermatology as well as Oncology.

**Experience**

2.3.3 Specific requirements for the aeroplane category rating

The applicant shall have completed not less than 40 hours of flight time, or 35 hours if completed during a course of approved training, as a pilot of aeroplanes appropriate to the class rating sought. The Licensing Authority shall determine whether experience as a pilot under instruction in a flight simulation training device is acceptable part of the total flight time of 40 hours or 35 hours, as the case may be. Credit for such experiences shall be limited to a maximum of 5 hours. (2.3.3.1.1)

When the applicant has flight time as a pilot of aircraft in other categories, the Licensing Authority shall determine whether such experience is acceptable and, if so, the extent to which the flight time requirements of 2.3.3.1.1 can be reduced accordingly. (2.3.3.1.1.1)

**FCL.210.A PPL (A) Experience requirements and crediting**

(b) Specific requirements for applicants holding an LAPL(A). Applicants for a PPL(A) holding a LAPL(A) shall have completed at least 15 hours of flight time on aeroplanes after the issue of the LAPLA(A), of which at least 10 shall be flight instruction completed in a training course at the an ATO. This training course shall include at least 4 hours of supervised solo flight time, including at least 2 hours of solo cross-country flight time with at least 1 cross-country flight of at least 270km (150NM), during which full stop landing at 2 aerodromes different from the aerodrome of departure shall be made.

(c) Specific requirements for applicants holding an LAPL(S) with TMG extension. Applicants for a PPL(A) holding a LAPL(S) with TMG extension shall have completed:

(1) at least 24 hours of flight time on TMG after the endorsement of the TMG
extension; and

(2) 15 hours of flight instruction in aeroplanes in a training course at an ATO, including at least the requirements of (a)(2).

(d) Crediting. Applicants holding a pilot licence for another category of aircraft, with the exception of balloons, shall be credited with 10% of their total flight time as PIC on such aircraft up to a maximum of 10 hours. The amount of credit given shall in any case not include the requirements in (a)(2)

Annex I give the Licensing Authority the opportunity to credit experience obtained as pilot in another aircraft category. The actual Licensing Authority in Austria as mentioned above is Austro Control. The European Union, through Regulation 1178/2011, narrows down the discretion of the national Licensing Authorities significantly by creating detailed standards and guidelines as to how much can be credited. The LAPL (A) (Light Aircraft Pilot Licence) is a licence that was created by Regulation 1178/2011. Consequently, Annex I does not know such a licence. In FCL.210.A Regulation 1178/2011 regulates how much flight time may be credited to an applicant for a PPL(A) who already holds a LAPL(A) licence. The overall flight time is reduced from 45 to 15 hours, the flight instruction time is reduced from 25 to 10 hours and finally the supervised solo flight time from 10 to 4 hours.

In Paragraph (c) Regulation 1178/2011 goes a step further an also regulates the crediting of flight time in case of applicants holding a LAPL(S) (Light Aircraft Pilot Licence Sailplane) with TMG extension (Touring Motor Gliders).

It reduces down the flight time requirements from 45 to 24 (overall flight time) and 25 to 15 (flight instruction time).

Furthermore Regulation 1178/2011 permits that applicants for a PPL(A), holding a licence

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86 Convention on International Civil Aviation, Annex I, Paragraph 2.3.3.1.1.1
for another category of aircraft, shall receive a credit of 10% for their flight time as PIC up to a maximum of 10 hours.\textsuperscript{93}

All these do not stand in conflict with Annex I since it gives the Licencing Authorities and consequently the Contracting States the permission to determine how much flight time may be credited and whether the experience gained is acceptable for crediting.\textsuperscript{94}

\textit{The applicant shall have completed in aeroplanes not less than 10 hours of solo flight time appropriate to the class rating sought, under the supervision of an authorized flight instructor, including 5 hours of solo cross-country flight time with at least one cross-country flight totalling not less than 270 km (150NM) in the course of which full-stop landings at two different aerodromes shall be made. (2.3.3.1.2)}

\textit{FCL.210.A – Experience requirements and crediting}

\begin{itemize}
\item[(a)] Applicants for a PPL(A) shall have completed at least 45 hours of flight instruction in aeroplanes (…), 5 of which may have been completed in an FSTD*, including at least:
\item[(1)] 25 hours of dual flight instruction; and
\item[(2)] 10 hours of supervised solo flight time, including at least 5 hours of solo cross-country flight time with at least 1 cross-country flight of at least 270km (150NM), during which full stop landings at 2 aerodromes different from the aerodrome of departure shall be made.
\end{itemize}

Regulation 1178/2011 requires at least 45 hours of flight instruction while Annex I only requires 40 hours of flight time. Both regimes allow a maximum of 5 hours of instruction in a Flight Simulation Training Device (FSTD) which may be credited to the overall training time. Consequently Regulation 1178/2011 sets higher standards for obtaining a PPL(A) than Annex I. Both regimes require 10 hours of solo flight time under the supervision of the flight instructor as well as a solo cross-country flight time of 5 hours with at least one cross-country flight of at least 270km (150NM) during which two full-stop landings at two different aerodromes shall be made. Regulation 1178/2011 goes


\textsuperscript{94} Convention on International Civil Aviation, Annex I, Paragraph 2.3.3.1.1.1
further and clarifies that two full stop landings at two aerodromes different from the aerodrome of departure shall be made.\textsuperscript{95} It is possible, under the regime of Annex I, to land also at the aerodrome of departure. Annex I only requires two full stop landings at different aerodromes. It does not say that it must be an aerodrome different from the aerodrome of departure.\textsuperscript{96}

2.1.9 Crediting of flight time

\textit{A student pilot or the holder of a pilot licence shall be entitled to be credited in full with all solo, dual instruction and pilot-in-command flight time towards the total flight time required for the initial issue of a pilot licence or the issue of a higher grade of pilot licence. (2.1.9.1)}

\textit{The holder of a pilot licence, when acting as co-pilot at a pilot station of an aircraft certificated for operation by a single pilot but required by a Contracting State to be operated with a co-pilot, shall be entitled to be credited with not more than 50 per cent of the co-pilot flight time towards the total flight time required for a higher grade of pilot licence. The Contracting State may authorize that flight time be credited in full towards the total flight time required if the aircraft is equipped to be operated by a co-pilot and the aircraft is operated in a multi-crew operation. (2.1.9.2)}

\textit{The holder of a pilot licence, when acting as co-pilot at a pilot station of an aircraft certificated to be operated with a co-pilot, shall be entitled to be credited in full with this flight time towards the total flight time required for a higher grade of pilot licence. (2.1.9.3)}

\textit{The holder of a pilot licence, when acting as pilot-in-command under supervision, shall be entitled to be credited in full with this flight time towards the total flight time required for a higher grade of pilot licence. (2.1.9.4)}


\textsuperscript{96} Convention on International Civil Aviation, Annex I, Paragraph 2.3.3.1.2
(a) Crediting of flight time

(1) Unless otherwise specified in this Part, flight time to be credited for a licence, rating or certificate shall have been flown in the same category of aircraft for which the licence or the rating is sought.

(2) Pilot-in command or under instruction

i. An applicant for a licence, rating or certificate shall be credited in full with all solo, dual instruction or PIC flight time towards the total flight time required for the licence, rating or certificate.

ii. (...) 

(3) Flight time as co-pilot. Unless otherwise determined in this Part, the holder of a pilot licence, when acting as a co-pilot or PICUS, is entitled to be credited with all of the co-pilot time towards the total flight time required for a higher grade of licence.

Both legal Regimes use a different approach to the crediting of flight time. What Annex I established in 2.1.9.1 and 2.1.9.4 namely that a student pilot or holder of a pilot licence either when acting as a pilot-in-command or under supervision regardless whether it’s solo flight time or flight instruction shall be credited in full with all flight time towards the total flight time for the issue of a pilot licence or higher grade of pilot licence. Regulation 1178/2011 narrows down and mandates that flight time can only be credited when the applicant for a licence, rating or certificate has flown the same category of aircraft for which the licence or rating is sought.

Annex I as well as Regulation 1178/2011 deal with flight time as a co-pilot. Regulation 1178/2011 permits the crediting of all the co-pilot time towards the total flight time required for a higher grade of licence. Annex I is stricter in its approach. Although it permits the crediting of all the co-pilot time towards the flight time for a higher grade of pilot licence in 2.1.9.3, it only allows to do so when the co-pilot time was obtained at a co-
pilot station of an aircraft certified to be operated with a co-pilot.\textsuperscript{100}

If the co-pilot time is obtained in an aircraft certified for single pilot operation but required by a Contracting State to be operated with a co-pilot only 50\% of the overall co-pilot time may be credited.\textsuperscript{101}

This is stricter than Regulation 1178/2011 as Regulation 1178/2011 does not differentiate between aircrafts that are certified to be operated by a single pilot or with a co-pilot. According to Regulation 1178/2011 all co-pilot time shall be credited in full regardless in which type of aircraft it was obtained. The only requirement, as mentioned above, is that the flight time was obtained in the same category of aircraft.

This consequently means that Annex I sets higher standards in that regard. The Member States of the European Union have to make sure, in order to follow their obligations under Annex I, to credit the flight time accordingly when dealing with States other than Members States of the European Union.

\textit{h. Flight instruction}

\textit{Flight instruction (2.3.3.2)}

\textit{The applicant shall have received dual instruction in aeroplanes appropriate to the class rating sought, from an authorized flight instructor. The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the private pilot:}

\begin{itemize}
  \item[\textit{a.}] Recognize and manage threats and errors;
  \item[\textit{b.}] Pre-flight operations, including mass balance determination, aeroplane inspection and servicing;
  \item[\textit{c.}] Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
  \item[\textit{d.}] Control of the aeroplane by external visual reference
  \item[\textit{e.}] Flight at critically slow airspeed; recognition of, and recovery from, incipient and full stalls;
\end{itemize}

\textsuperscript{100} Convention on International Civil Aviation, Annex I, Paragraph 2.1.9.3
\textsuperscript{101} Convention on International Civil Aviation, Annex I, Paragraph 2.1.9.2
It is noteworthy that Annex I clearly establishes that applicants for a PPL(A) shall receive a dual instruction appropriate to the class rating sought, which has to be done by an authorized flight instructor. It also creates a binding set of provision that name areas in which an applicant for the PPL(A) should receive instruction.\(^{102}\) We do not find something similar in Regulation 1178/2011. Although flight instruction is mentioned in FCL.210.A, FCL.235 and FCL.700, Regulation 1178/2011 never mentions any specific area in which the applicants must receive flight instruction. It only establishes how many hours they are to receive flight instruction and that flight instruction has to be given prior to undergoing a skill test.\(^{103}\) This consequently means that Annex I is stricter and narrows down the margin for flight instruction by establishing a minimum level of standard. Regulation 1178/2011 regulates in Appendix 7 the content of a skill test for an applicant of a PPL but only when an Instrument Rating (IR) is added to the licence.\(^{104}\) The content of as well as the parameters for a skill test of an applicant for a PPL (A) can not be found in Regulation 1178/2011 itself but rather are published by the EASA as

\(^{102}\) Convention on International Civil Aviation, Annex I, Paragraph 2.3.3.2, lit a - m

\(^{103}\) Commission Regulation (EU) No.1178/2011 of 03 November 2011, Annex I, Subpart C, Section 1, FCL.235, Paragraph (b) and Section 2, FCL.210.A, Paragraph (b), (c) (OJ L 311, 25.11.2011, p.1)

“Acceptable Means of Compliance and Guidance Material to Part-FCL”.

i. Category, Class, Type Ratings

General rules concerning pilot licences and ratings (2.1)

A person shall not act either as a pilot-in-command or as co-pilot of an aircraft in any of the following categories unless that person is the holder of a pilot licence issued in accordance with the provisions of this Chapter (2.1.1.1):

- Aeroplane
- (...)

The category of aircraft shall be included in the title of the licence itself, or endorsed as a category rating on the licence (2.1.1.2).

Category ratings (2.1.2)

When established, category ratings shall be for categories of aircraft listed in 2.1.1.1 (2.1.2.1)

Category ratings shall not be endorsed on a licence when the category is included in the title of the licence itself. (2.1.2.2)

Regulation 1178/2011 complies insofar as it clearly puts forward the requirements of the PPL (A). A stands for “Aeroplane”. This is clearly stipulated in Section 2 “Specific requirements for the PPL aeroplanes – PPL(A)”

Therefore, according to Annex I, no separate category rating is needed.

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Class and type ratings (2.1.3)

Class ratings shall be established for aeroplanes certificated for single-pilot operation and shall comprise:

a) Single – engine, land;

b) (…) (2.1.3.1)

Circumstances in which class and type ratings are required (2.1.4)

A Contracting State having issued a pilot licence shall not permit the holder of such licence to act either as pilot-in-command or as co-pilot of an aeroplane, (…) unless the holder has received authorization as follows:

a) The appropriate class rating specified in 2.1.3.1.

b) (…) (2.1.4.1)

FCL.705 – Privileges of the holder of a class or type rating

The privileges of the holder of a class or type rating are to act as pilot on the class or type of aircraft specified in the rating.

For the purpose of training, testing, or specified special purpose non-revenue, non-passenger carrying flights, special authorization may be provided in writing to the licence holder by the Licensing Authority in place of issuing the class or type rating in accordance with 2.1.4.1. This authorization shall be limited in validity to the time needed to complete the specific flight.(2.1.4.2)

FCL.700 - Circumstances in which class and type ratings are required

(a) Except in the case of the LAPL, SPL, and BPL, holders of a pilot licence shall not act in any capacity as pilots of an aircraft unless they have a valid and appropriate class or type rating, except when undergoing skill tests, or proficiency checks for renewal of class or type ratings, or receiving flight instruction.
(b) Notwithstanding (a), in the case of flights related to the introduction or modification of aircraft types, pilots may hold a special certificate given by the competent authority, authorising them to perform the flights. The authorisation shall have its validity limited to specific flights.

(c) Without prejudice to (a) and (b), in the case of flights related to the introduction or modification of aircraft types conducted by design or production organisations within the scope of their privileges, as well as instruction flights for the issue of a flight test rating, when the requirements of this Subpart may not be complied with, pilots may hold a flight test rating issued in accordance with FCL 820

The Requirements for the issue of class and type ratings (2.1.5)

Class Rating

The applicant shall have demonstrated a degree of skill appropriate to the licence in an aircraft of the class for which the rating is sought. (2.1.5.1)

FCL.725 - Requirements for the issue of class and type rating

(a) Training course. An applicant for a class or type rating shall complete a training course at an ATO. (…)

(b) Theoretical knowledge examination. The applicant for a class or type rating shall pass a theoretical knowledge examination organised by the ATO to demonstrate the level of theoretical knowledge required for the safe operation of applicable aircraft class or type.

(1) (…)

(3) For single-engine aircraft the theoretical knowledge examination shall be conducted verbally by the examiner during the skill test to determine whether or not a satisfactory level of knowledge has been achieved.

(c) Skill test. An applicant for a class or type rating shall pass a skill test in accordance with Appendix 9 to this Part to demonstrate the skill required for the safe operation of the applicable class or type of aircraft.

The applicant shall pass the skill test within a period of 6 months after the commencement of the class or type rating training course and within a period of 6 months preceding the application for the issue of the class or type rating. (…)

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First we have to differentiate between a Class and a Type Rating. There are certain types of aircrafts that require special training beyond the scope of the initial pilot licence. Most holders of an ATPL (Airline Transport Pilot Licence) undergo further training in order to obtain a Type Rating (e.g. Type Rating for Airbus A320 or Boeing 747). This should acquaint future pilots better with the specifics of each respective aircraft type\textsuperscript{106}. Class Ratings in contrast cover a certain class of aircrafts without the need of further training for a specific model. Single Engine Piston (SEP), which is the focus of this thesis, covers all aircrafts up to 2000 kg and can be obtained together with the PPL(A)\textsuperscript{107}. It gives the holder of a PPL(A) the permission to fly most common aircraft types such as Cessna 150, Cessna 152 and Piper Arrow\textsuperscript{108}. The Class Rating SEP is also a requirement for an Instrument Rating and the Flight Instructor Licence\textsuperscript{109}. It has to be pointed out that Annex I speaks of the class rating single-engine land while Regulation 1178/2011 speaks of the class rating single-engine piston. Those are the same only the wording is different.

Both legal regimes require a class rating and do not allow individuals to act as a pilot without a valid class rating\textsuperscript{110}. Under certain circumstances both legal regimes make exceptions from the previous mentioned rule. Annex I clearly states in Paragraph 2.1.4.2 that a written special authorisation, which is valid for a limited period of time, may be provided to the licence holder for the purpose of training, testing or special purpose non-revenue, non-passenger carrying flights\textsuperscript{111}. Regulation 1178/2011 in Paragraph FCL.700 establishes similar guidelines but the wording is a bit more specific. While Annex I only speaks of testing or specified special purpose flights, Regulation 1178/2011 mentions flights related to the introduction or modification of aircraft types as well as flights related to the introduction or modification of aircraft types conducted by design or production organisations and instruction flights for the

\textsuperscript{106} vgl. EASA: Type rating and licence endorsement list flight crew – all aircraft excluding helicopters 18 January 2018 (2018) URL: https://www.easa.europa.eu/sites/default/files/dfu/20180212%20EASA%20T_R_List_Acft.pdf

\textsuperscript{107} vgl. EASA: Licensing for General Aviation, URL: https://www.easa.europa.eu/easa-and-you/general-aviation/licensing-general-aviation

\textsuperscript{108} vgl. EASA: Type rating and licence endorsement list flight crew – all aircraft excluding helicopters 18 January 2018 (2018), URL: https://www.easa.europa.eu/sites/default/files/dfu/20180212%20EASA%20T_R_List_Acft.pdf


\textsuperscript{111} Convention on International Civil Aviation, Annex I, Paragraph 2.1.4.2
issue of a flight test rating. This does not stand in conflict with Annex I as all those flights are either test flights or specified special purpose flights and thus covered by Annex I. Annex I highlights the non-revenue character of such flights. Regulation 1178/2011 does not but includes the non-revenue character indirectly since flights related to the introduction or modification of aircrafts as well as instruction flights for the issue of a flight test rating are typically non-revenue flights. Either way the Member States of the European Union have to make sure that the non-revenue character is observed as they are bound to the Chicago Convention. So even though it would be technically possible, by only taking Regulation 1178/2011 into consideration, to also include revenue flights the Member States cannot do that as Annex I highlights the non-revenue character of such flights. Annex I only requires the Contracting States to make sure that the applicant demonstrates a degree of skill appropriate to the licence of the aircraft class for which the rating is sought. It give the Contracting States a relatively high degree of independence and discretion. In FCL.725 Regulation 1178/2011 establishes requirements for the issue of a class rating. It mandates that the applicants for a class rating have to complete a training course at an ATO together with a theoretical knowledge examination, which may be conducted verbally in case of a single-engine aircraft, as well as a skill test. It also requires the applicant to undergo and pass the skill test within six months after the completion of the class rating training course. Both legal regimes distinguish between different class ratings. In the single-engine category Annex I differentiates between single-engine land and single-engine sea.

113 Convention on International Civil Aviation, Annex I, Paragraph 2.1.4.2
114 Convention on International Civil Aviation, Annex I, Paragraph 2.1.5.1
116 Convention on International Civil Aviation, Annex I, Paragraph 2.1.3.1, lit a, b
### j. Validity of licences

#### 1.2.5 Validity of Licences

A Contracting State, having issued a licence, shall ensure that the privileges granted by that licence, or by related rating, are not exercised unless the holder maintains competency and meets the requirements for recent experience established by that State. (1.2.5.1)

**Recommendation** – A Contracting State, should establish maintenance of competency and recent experience requirements for pilot licence and ratings based on a systematic approach to accident prevention and should include a risk assessment process and analysis of current operations, including accident and incident data appropriate to that State. (1.2.5.1.1.)

A Contracting State, having issued a licence, shall ensure that other Contracting States are enabled to be satisfied as to the validity of the licence. (1.2.5.1.2)

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**FCL 740 Validity and renewal of class and type ratings**

(a) The period of validity of class and type ratings shall be 1 year, except for the single-engine class ratings, for which the period of validity shall be 2 years, (unless otherwise determined by the operational suitability data, established in accordance with Part -21)

(b) Renewal. If a class or type rating has expired, the applicant shall:

1. Take refresher training at an ATO, when necessary to reach the level of proficiency necessary to safely operate the relevant class or type of aircraft; and
2. Pass a proficiency check in accordance with Appendix 9 to this Part
(b) Revalidation of single-pilot single-engine class ratings

(1) Single-engine piston aeroplane class ratings an TMG ratings. For the revalidation of single-pilot single-engine piston aeroplane class ratings or TMG class ratings the applicant shall:

(i) within the 3 months preceding the expiry date of the rating, pass a proficiency check in the relevant class in accordance with Appendix 9 to this Part with an examiner; or

(ii) within the 12 months preceding the expiry date of the rating, complete 12 hours of flight time in the relevant class, including:

- 6 hours as PIC,
- 12 take-offs and 12 landings, and
- A training flight of at least 1 hour with a flight instructor (FI) or a class rating instructor (CRI). Applicants shall be exempted from this flight if they have passed a class or type rating proficiency check or skill test in any other class or type of aeroplane

(c) Applicants who fail to achieve a pass in all sections of a proficiency check before the expiry date of a class or type rating shall not exercise the privileges of that rating until a pass in the proficiency check has been achieved.

Annex I does not establish a specific validity period of licences but is rather general in its approach. Contracting States have to ensure that privileges granted by a licence are not exercised unless the holder maintains a high level of competency and meets the requirements for recent experience established by the Contracting States. Furthermore Annex I advises that the Contracting States should establish maintenance of competency and recent experience requirements for pilot licences and ratings based on a systematic high level approach to accident prevention and analysis of current operations – in other words: The latest standards established by science in the field of aviation.

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117 Convention on International Civil Aviation, Annex I, Paragraph 1.2.5.1
118 Convention on International Civil Aviation, Annex I, Recommendation 1.2.5.1.1
This consequently means that Annex I leaves it entirely to the Contracting States to determine how those high standards are met and how long a licence is valid until it has to be renewed. A Private Pilot Licence itself is a non-expiring lifetime licence as Regulation 1178/2011 does not establish a validity period for the Private Pilot Licence.\(^{119}\)

That does not mean however that a holder, after obtaining his/her licence, never has to undergo further training anymore. The requirements of Annex I are observed insofar as Regulation 1178/2011 establishes validity periods for class and type ratings. A pilot may still hold a PPL but he/she cannot fly without a valid class or type rating. Regulation 1178/2011 puts forwards a validity period of class and type ratings of one year, in the case of single engine class ratings, of two years. Most holders of a PPL(A) have a single-engine piston (single-engine land) rating, which means their licence is valid for two years.\(^{120}\)

After two years, they have to undergo a proficiency check within three months before their rating expires. Furthermore they have to perform 12 hours of flight time (six of which as PIC), twelve take-offs and landings and one hour of training flight with a flight instructor within twelve months prior to the expiry date of the licence.\(^{121}\)

By establishing these strict rules, Regulation 1178/2011 makes sure that all the Member States follow their obligations under Annex I. Since Regulation 1178/2011 sets the same standards for all 28 Member States, it harmonises the different legal regimes and makes sure that that 1.2.5.1.2 is observed within the European Union.


FCL.045 Obligation to carry and present documents

(a) A valid licence and a valid medical certificate shall always be carried by the pilot when exercising the privileges of the licence.
(b) The pilot shall also carry a personal identification document containing his/her photo.
(c) A pilot or a student pilot shall without undue delay present his/her flight time record for inspection upon request by an authorised representative of a competent authority.
(d) A student pilot shall carry on all solo cross-country flights evidence of the authorisation required by FCL.020 (a).

FCL.040 Exercise of the privileges of licences

The exercise of the privileges granted by a licence shall be dependent upon the validity of the ratings contained therein, if applicable, and of the medical certificate.

FCL.050 Recording of flight time

The pilot shall keep reliable record of the details of all flights flown in a form and manner established by the competent authority.

The obligation to carry and present documents is not expressly mentioned in Annex I. Annex I mentions a validity period of licences but not that documents have to be carried by the licence holders at all times. Regulation 1178/2011 clearly stipulates that all relevant documents (valid licence and medical certificate) have to be with the licence holders at all times when performing his/her licence privileges. 122

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k. Action by the Contracting States

Action by Contracting States

Notification of differences. The attention of Contracting States is drawn to the obligation imposed by Article 38 of the Convention by which Contracting States are required to notify the Organization of any differences between their national regulations and practices and the International Standards contained in this Annex and any amendments thereto. Contracting States are invited to extend such notification to any differences from the Recommended Practices contained in this Annex and any amendments, when the notification of such differences is important for the safety of air navigation. Further, Contracting States are invited to keep the Organization currently informed of any difference which may subsequently occur, or of the withdrawal of any difference previously notified. A specific request for notification of differences will be sent to Contracting States immediately after the adoption of each amendment to this Annex.

Use of the Annex text in national regulations. The Council, on 13 April 1948, adopted a resolution inviting the attention of Contracting States to the desirability of using their own national regulations, as far as practicable, the precise language of those ICAO Standards that are of a regulatory character and also of indicating departures from the Standards, including any additional national regulations that were important for the safety or regularity of air navigation. Wherever possible, the provisions of this Annex have been written in such a way as to facilitate incorporation, without major textual changes, into national legislation.

Article 38 of the Chicago Convention

Any State which finds it impracticable to comply in all respects with any such international standard or procedure, or to bring its own regulations or practices into full accord with any international standard or procedure after amendment of the latter, or which deems it necessary to adopt regulations or practices differing in any particular respect from those established by an international standard, shall give immediate notification to the International Civil Aviation Organization of the differences between its own practice and that
established by the international standard. In the case of amendments to international standards, any State which does not make the appropriate amendments to its own regulations or practices shall give notice to the Council within sixty days of the adoption of the amendment to the international standard, or indicate the action which it proposes to take. In any such case, the Council shall make immediate notification to all other states of the difference which exists between one or more features of an international standard and the corresponding national practice of that state.

These few paragraphs might be short but are very important, for they confer the obligation onto the Contracting States to notify the International Civil Aviation Organisation of any differences that exist between their respective national legal orders and the international standards established by Annex I. Neither Annex I nor the Chicago Convention discriminate between differences that are above the international standard and those, which are below. Any practices or regulations that differ in any particular respect from the international standards need notification to the International Civil Aviation Organisation.123

Although the European Union essentially follows the invitation of the Council to adopt the same language and implement it into the European legal order, it also frequently sets higher standards than those established in Annex I.

A Regulation is European Law that is directly applicable and can be enforced accordingly.124 It does not necessarily need to be implemented into the respective national legal orders of the 28 Member States. Austria, as mentioned at the beginning, implements the Regulation by implementing the provisions of Regulation 1178/2011 into the Austrian legal order.125 Therefore European Law becomes Austrian national law. This consequently means that Austria, as a Contracting State of the Chicago Convention and thus Annex I, now uses national legislation and practices that differ from the international standards put forward by Annex I. The European Union does not notify the International Civil Aviation Organisation but it rather leaves it to the Member States to do so. This makes perfect sense as the European Union is not a member of ICAO and Contracting Party of the Chicago Convention and is consequently not bound to it.126 The 28 Member States are though.
Although the European Union, under EU Law, is gradually taking over the duties and tasks of international civil aviation, the responsibilities remain with the Contracting States as a transfer was not foreseen under the provisions of the Chicago Convention. It therefore falls to the 28 Member States of the European Union to carry out and observe the obligations of the Chicago Convention.\(^\text{127}\) This means that Austria has to make sure to notify the International Civil Aviation Organisation. The national Aviation Authority in Austria is the Minister for Transport, Innovation and Technology. Most obligations as well as duties are carried out and controlled by the Austro Control GmbH, onto which the Minister for Transport, Innovation and Technology confers most of his powers.\(^\text{128}\) The Austro Control GmbH is therefore the competent authority that makes sure that all of Austria’s obligations under the scope of the Chicago Convention and Annex I are met.

The above-mentioned only applies to practices that differ from the international standards and not to the Recommended Practices. In regards to the Recommended Practices the Contracting States are only invited and not obligated to notify the International Civil Aviation Organisation of any differences and therefore those recommended practices are of a non-binding nature.\(^\text{129}\)

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\(^{128}\) § 140 LFG (Luftfahrtgesetz, BGBl II Nr. 253/1957 idF BGBl II Nr. 92/2017)

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