WORK TIME OF A CREW IN EUROPEAN AND POLISH LAW

Piotr Kasprzyk, (PhD)
Civil Aviation Authority, Poland

Anna Konert, (PhD)
The Lazarski University, Poland

Magdalena Barbara Rycak, (PhD)
The Lazarski University, Poland

Abstract: Employee fatigue increases over time, and contributes to situations that endanger health and even life. Under the determinants of health, the human working environment is mentioned, including the working time, schedule, shifts, rest periods as well as the work pace. The aim of the article is to analyze the existing provisions regarding working time in aviation and it has been restricted to civil aviation mobile personnel, which is understood here as crew members on board of a civil aircraft, employed in a Member State.

Keywords: Working Time, Schedule, Shifts

1. Introduction
The length and organization of working times affect employees' health as well as determining the time remaining for personal life, relaxation, studies and participation in cultural life. Employee fatigue increases over time, and contributes to situations that endanger health and even life. Under the determinants of health, the human working environment is mentioned, including the working time, schedule, shifts, rest periods as well as the work pace. In the classification of health determinants by the Experts Committee of the World Health Organization, leisure, rest and recreation are mentioned as needs whose fulfillment significantly affects the health of the population.1

In the case of mobile/flying personnel, the rules regulating working and resting times of flight crews are linked to flight safety.

The personal scope of this study has been restricted to civil aviation mobile personnel, which is understood here as crew members on board of a civil aircraft, employed in a Member State2.

---

1 See: M. Gasińska, Czas pracy jako czynnik zdrowia i bezpieczeństwa pracowników – próba przybliżenia problemu, [w:] Czas pracy w przedsiębiorstwie. Wyniki badań nad rozkładami czasu pracy i zdrowiem pracowników (Work time as a factor of health and safety of employees – Problem presentation, in: Working time in a company. Results of working time schedule and employees' health research, collective work edited by H. Strzemieńska, Instytut Pracy i Spraw Socjalnych (Institute of Labour and Social Affairs), Warszawa 2002, p. 80-101.

2 See clause 2 point 2 of the agreement appended to the Regulation 2000/79/WE of 27 November 2000 concerning the European Agreement on the Organization of Working Time of Mobile Workers in Civil Aviation concluded by the Association of European Airlines (AEA), the European Transport Workers' Federation (ETF), the European Cockpit Association (ECA), the European Regions Airline Association (ERA) and the International Air Carrier Association (IACA) (OJ EC I. 302 of 01.12.2000, p. 57).
Employers organizing the work of mobile personnel face the difficult task of reconciling the need of ensuring the continuity of passenger services, including on long-haul flights, with the safety standards governed by EU regulations as well as working time standards regulated at national levels. What attracts early attention at the first reading of legal acts regulating the working time frames of flying personnel is the casuistry of these regulations, as well as their dispersion over multiple legal acts in different areas of law (i.e. administrative and labor law), making it difficult to interpret and understand the legal standards of the regulations. This is in conflict with the Latin rule "de minimis non curat lex" and eradicates any academic legal interest in the issues related to the working time of flying personnel, which have not been studied comprehensively so far. Moreover, the large number of regulations relating to the time allocation of aircrew personnel, used both by the EU and national employers, is unlikely to stimulate the proper interpretation and application of the provisions. This paper aims principally at outlining the laws regulating the given topic, the scope of their regulation and their mutual links, as well as introducing the major concepts used by employers. A complex analysis of the whole body of laws regulating the working time of crew members in air transportation would require a monograph to be developed by specialists in both labor and aviation law as well as by practitioners organizing the work of aircrews. Another purpose of this publication is to arouse interest in the discussed field among researchers and to initiate extensive research on aircrew members' working times.

2. Aircrew working times and flight safety

According to scientific evidence, the fatigue of flight crew members seriously jeopardizes air safety and endangers passenger safety. Fatigue increases reaction time to stimulus, causes concentration problems as well as intellectual processing difficulties. The effects of fatigue can be compared to those caused by alcohol consumption. Analyses carried out by the US Federal Aviation Administration (FAA) show that the risk of an aircraft accident in a flight duty lasting more than 13 hours is five times higher than in a 9-hour long duty.

We do not need to look far to find specific cases illustrating the impact of fatigue on flight safety. Fatigue of the aircraft crew, resulting from a very short night stay, was considered to be a major contribution to serious incidents during a flight on the national route from Bydgoszcz to Warsaw in 2006. As a result of a misunderstanding, the crew lost data from the board indicator instruments, and were under conditions without visibility. The commission investigating this incident recommended amending the working time provisions in force at the time in Poland, emphasizing the necessity to "pay due regard to physiological needs of the aircrew bodies as well as to flight safety requirements". As explained in the final report, flight crews' working hours at different times of day are very often different from those commonly acknowledged as most favorable from the point of view of work physiology and personal needs. Another inconvenience is the irregularity of hours and the duration of work performed onboard an aircraft, combined with the necessity to stay, also overnight, away from the homeport.

The need to take into account the results of the research when establishing new provisions on mobile crew working times, results not only from the recommendations of safety investigators, but is directly expressed in international and Union legislation.

---

3 The principle means that law does not concern with trifles, as it cannot regulate all, even the smallest, legal issues. The law should limit its concern to major issues. (see M. Kuryłłowicz, Słownik terminów, zwrotów i sentencji prawniczych łacińskich oraz pochodzenia łacińskiego [Glossary of Latin terms, sayings and legal Latin phrases or of Latin origin], Zakamycze, Kraków 2002, p. 103).

4 It was explained by COM that "duty time" per Regulation 3922/1991 corresponds to "Working Time" as per Directive 79/2000. Hence, both provisions do not conflict but complement each other. There is no annual ceiling of duty time foreseen in FTL because only short term fatigue is considered as impacting flight safety. Report of the Air Safety Committee Meeting on EU-OPS Brussels, 06 December 2007, 6.


3. International regulations on working times of mobile staff in civil aviation

The legal act regulating issues related to working hours in aviation at an international level is Annex 6 to the Convention on International Civil Aviation, signed in Chicago on 7 December 1944. According to Art. 37 of the Convention, State Parties to the Convention need to cooperate in order to ensure the highest practicable level of harmonization of provisions, standards, rules of conduct and organization regarding aircraft, staff, air routes and support services. This is the standard in all cases where such harmonization can facilitate and improve air navigations. By virtue of the provisions of this Convention, the International Civil Aviation Organization (ICAO) was created, whose member countries have committed themselves to facilitate air navigations by the application of international standards and safety recommendations laid down by ICAO. These standards and recommended practices are provided in the form of nineteen annexes to the Chicago Convention.

With regards to commercial air transport, the standards and recommendations provided in Annex 6 to the Convention (Operation of Aircraft, part I, international commercial air transport – aircraft) constitute an essential tool. It should be noted that the Convention on International Civil Aviation has been ratified by Poland on 20 November 1958, and, as indicated in the government’s declaration on 20 August 2003, Poland is bound by Annex 6. Subsequent editions of part I of this Annex were repeatedly published in the Official Journal of the Civil Aviation Authority.

Part 9.6 of Annex 6, part I includes a recommendation for the purpose of fatigue management, which indicates that the State of the Operator should establish rules containing restrictions to be applied on flight times, flight duty periods and rest periods for crew members. It is underlined that such provisions must be based on scientific principles and knowledge, and, where possible, aimed at ensuring an appropriate level of vigilance among crew members when performing their duties onboard. The recommendation is repeated in point 4.2.11.2 of Annex 6, which requires the operator to establish flight and duty time restrictions, and to develop a rest scheme in compliance with the rules approved by the State of the Operator and included in the Operations Manual.

Basic definitions for duty, duty period, flight duty period, and flight time are provided in Chapter I (definitions) and are further detailed in Annex A, containing guidance material for the development of prescriptive fatigue management regulations. According to this material, flight time, flight duty period, duty period limitations and rest period requirements are established for the sole purpose of ensuring that the flight crew and the cabin crew members are performing at an adequate level of alertness for safe flight operations. According to point 4.2.1., a crew member is a person appointed by the operator to perform duties on board during the flight duty period. A licensed crew member who is charged with duties essential for the operation of an aircraft during a flight duty period is defined as a flight crew member. A crew member who performs duties for the interest of passenger safety as assigned by the operator or the pilot-in-command of the aircraft, but who does not act as a flight crew member, is a cabin crew member.

---

7 Journal of Laws 59.35.212 with later amendments.
8 Z. Galicki, Charakter prawny międzynarodowych wzorów i zaleceń metod ICAO (The legal character of international standards and recommendations on methods by ICAO), Warszawa 1971; M. Żylicz, Prawo lotnicze międzynarodowe, europejskie i krajowe (International, European and national aviation legislation); Lexis Nexis, Warszawa 2011, p...
9 Government’s declaration dated 20 August 2003 on the effective character of the Annexes to the Convention on International Civil Aviation, signed in Chicago on 7 December 1944, – Journal of Laws 03.146.1413
101) Legal notice No 5 of the President of the Civil Aviation Authority on annexes to the Convention on International Civil Aviation, signed on 7 December 1944, – Journal of Laws Civil Aviation Authority of 06.2.13; 2) Legal notice No 13 of the President of the Civil Aviation Authority on annexes to the Convention on International Civil Aviation, signed on 7 December 1944, – Journal of Laws Civil Aviation Authority 2008.6.38; 3) Legal notice No 3 of the President of the Civil Aviation Authority on publication of the text of Annex 6 to Convention on International Civil Aviation, signed in Chicago on 7 December 1944 – Journal of Laws Civil Aviation Authority 09.5.128; 4) Legal notice No 14 of the President of the Civil Aviation Authority on publication of the text of Annex 6 to Convention on International Civil Aviation, signed in Chicago on 7 December 1944 – Journal of Laws Civil Aviation Authority 09.18.206. 5) Legal notice No 13 of the President of the Civil Aviation Authority on publication of the text of Annex 6 to Convention on International Civil Aviation, signed in Chicago on 7 December 1944 – Journal of Laws Civil Aviation Authority 14.51
It has been pointed out that, in establishing the provisions in question, two types of fatigue should be taken into account, which both need to be prevented:

1) transient fatigue – which is dispelled by a single sufficient period of rest or sleep;
2) cumulative fatigue – which can occur after incomplete recovery from transient fatigue over a period of time.

Being fully rested is not only the right of each crew member, but is also a duty. The operator should not require a flight crew member to operate an aeroplane if it is suspected that the flight crew member is fatigued to the extent that the safety of the flight may be adversely affected. A flight crew member, in turn, should not operate an aeroplane in such a case.

According to Point 2.3.1 of Annex A, the definition of a flight duty period (FDP) is intended to cover a continuous period of duty that includes a flight or series of flights for the flight or cabin crew member. It is meant to include all duties a crew member may be required to carry out from the moment he or she reports for duty, until he or she completes the flight or series of flights and the aeroplane finally comes to rest and the engines are shut down. This is the so called flight duty period (FDP), which is defined as the period from the moment when the flight crew member or the cabin crew member reports for duty including a flight or series of flights and until the flights end and engines are shut down, after the last flight, in which the person performed his or her duties as a member of the flight crew or of the cabin crew, has come to an end. Thus it includes the necessary pre-flight operations, the flight period, the approach and the nature of the operation.

A flight duty period does not include the period of travelling time from home to the point of reporting for duty. Time spent positioning at the behest of the operator is part of a flight duty period when this time immediately precedes a flight duty period. Thus, if there is an intervening rest period, the time spent positioning is not included in the flight duty period.

Positioning means the movement of a non-operating crew member from one place to another as a passenger (in the passenger cabin) at the behest of the operator. The term is synonymous to “deadheading”. It is the case when the crew member is needed by the operator in an airport different from the one where he or she is at the given moment.

In addition, it is necessary to ensure rest periods, subsequent and/or prior to duty, during which flight or cabin crew members are free of all duties for the purpose of recovery from fatigue. It has been pointed out that rest periods should not include standby if the conditions of standby do not enable flight and cabin crew members do not have adequate opportunity to recover from fatigue. Standby, in turn, is a defined period of time during which a flight or cabin crew member is required by the operator to be available to receive an assignment for a specific duty without an intervening rest period.

The start time and end time of standby should be defined and notified sufficiently in advance. National regulation should precisely define the period of advance notice. Also the maximum length of any standby should be indicated.

The time spent being available should not be counted as a duty. It is when flight and cabin crew members are required to be available for contact over a brief period of time to receive instructions concerning a possible change of roster.

Moreover, it has been indicated that in formulating regulations or rules governing flight time limitations, the balance and division of various tasks to be performed among the flight or cabin crew members should be taken into account.

Duty rosters are lists provided by an operator of the times when a crew member is required to undertake duties. They should be prepared and published sufficiently in advance to provide flight and cabin crew members the opportunity to plan adequate rest.
The operator should nominate a home base for each flight and cabin crew member, from where the flight and cabin crew member will normally start and end a duty period or a series of duty periods.

Duty includes all tasks carried out at the behest of the operator, including pre-flight preparation, conduct of the flight, administrative actions, training, positioning, and standby when it is likely to induce fatigue. According to the national legislation, the flight time, the duty period and the flight duty period must be limited. Flight time (block time) is the total time from the moment an aeroplane first moves for the purpose of taking off until the moment it finally comes to rest at the end of the flight.

Flight time, as it is defined here, is synonymous with the terms “block to block” time or “chock to chock” times, which are in general usage. The material indicates the need to determine the maximum flight time:

1) in any flight duty period;
2) in any 7 consecutive days or in any 28 consecutive days;
3) in any 365 consecutive days.

A duty period starts when a flight or cabin crew member is required by an operator to report for a duty (reporting time) and ends when that person is free from all duties.

However, it has been proposed that the travelling time spent by a flight or cabin crew member, in transit between the place of rest and the place of reporting for duty, is not counted as duty, even though it is a factor contributing to fatigue.

It is necessary to specify the maximum duty hours within 7 and 28 consecutive days and the maximum flight duty period, with the latter differing between cabin and flight crew members. The maximum duty periods may be extended in unforeseen operational circumstances at the discretion of the pilot-in-command. An unforeseen circumstance is an unplanned event that is beyond the control of the operator, such atmospheric phenomena, equipment malfunction, or air traffic delay. In formulating the extent to which extensions may be permitted, the balance and division of various tasks to be performed among crew members, as well as the quality of available rest facilities, should be taken into account.

It is also necessary to determine the minimum resting periods preceding the flight duty period. Rest provisions should take into account the impact of time zone crossings and night operations.

In the provisions of Annex 6, the concept of the “State of the Operator” is used with reference to the entity obliged to take particular measures for increasing flight safety. As it is specified in Recommendation 4.10.8 in Chapter 4 of Annex 6 ICAO, the Operator should keep records of all his flights and cabin crew members, flight periods, flight duty periods, duty periods and rest periods, in the period defined by the State of the Operator. Thus, certain obligations will apply to operators, including employers. The terms of aircrew member employment are not determinant of the personal scope of the provisions in the Convention.

4. EU regulations on aircrew working times

Since 2002, the transfer of powers to European Communities for legislating in the field of air safety has been proceeding. One of the main arguments for establishing laws in the field of air safety at the Community level was the recognition, derived from proportionality principles, that the implementation of ICAO norms and recommendations would be more effective and more advantageous, if the provisions are established at the level of the European Communities.

Relevant EU provisions in the area of aircraft operations, including those regulating work and rest periods of crew members, were adopted under Regulation 1899/2006 of the European Parliament and the Council in 12 December 2006\textsuperscript{13} amending Regulation 3922/91 on the harmonization of technical requirements and administrative procedures in the field of civil aviation\textsuperscript{14}.

Detailed rules on the duty periods of aircraft crew members were laid down in part Q of Annex III of Council Regulation 3922/91 in 16 December 1991, on the harmonization of technical requirements and administrative procedures in the field of civil aviation (so called EU-OPS)\textsuperscript{15}.

The Annex contains definitions of the concepts “duty”, “duty period”, “interval”, “flight duty period” or “standby”. Understanding these concepts allows a deeper analysis of other work time systems in aviation.

A duty is any task that a flight or cabin crew member is required to perform as an AOC certificate holder\textsuperscript{16}. The certificate authorizes an individual to provide scheduled or non-scheduled commercial passenger and freight services as well as sanitary and medical transport services. Any operator wishing to provide public transport using aeroplanes must obtain it. Duties include all tasks to be carried out by crew member, insofar as they concern the activities of the provision of scheduled or non-scheduled commercial flight transport services.

A duty period is a period that starts when a flight or cabin crew member is required by an operator to report for or to commence a duty, and ends when that person is free from all duties\textsuperscript{17}. A single day free of duty includes 2 local nights. Local night means a period of 8 hours between 10pm and 8am local time. The duty period includes, among others:

1) the flight duty period (FDP) – is the period when a person performs his or her duties onboard an aircraft as crew member of this aircraft. It commences when a crew member is required to report for duty that includes a flight or a series of flights and which finishes when the aeroplane finally comes to rest at the end of the last flight\textsuperscript{18}.

2) the interval – is a period free from any duties, and is shorter than the rest period\textsuperscript{19}.

3) Standby – is a defined period of time during which a flight or cabin crew member is required by the operator to be available to receive an assignment for a flight, positioning or for another duty without an intervening rest period\textsuperscript{20}.
   a) airport standby – should be taken into account to calculate the total number of duty hours\textsuperscript{21}.
   b) standby outside an airport (i.e. standby in a hotel) – to an extent determined by the relevant authority\textsuperscript{22}.

4) Positioning – is considered as part of the duty period\textsuperscript{23}. It is the period of time spent on transferring a non-operating crew member from place to place at the behest of the operator, excluding the travel time.

\textsuperscript{16} OPS 1.1095 (1.4)
\textsuperscript{17} OPS 1.1095 (1.5)
\textsuperscript{18} OPS 1.1095 point 1.6
\textsuperscript{19} OPS 1.1095 point 1.3
\textsuperscript{20} OPS 1.1095 point 1.14
\textsuperscript{21} OPS 1.1125 point 1.2
\textsuperscript{22} OPS 1.1125 point 2.1
\textsuperscript{23} OPS 1105 point 5.1.
5) Other activities carried out at the behest of the operator, related to the commercial provision of air transport services, i.e. medical exams, theoretical and practical training, flight simulators, participation in task forces etc.

In addition, part Q of Annex III EU-OPS provides limitations to the duty period. An operator is obliged to ensure that the maximum duty periods for a flight crew or cabin crew member do not exceed:

a) 190 duty hours in any 28 consecutive days, distributed as evenly as possible over this entire period. Therefore, it should not happen that a crew member works 60 hours within 3 weeks and 10 hours in the fourth week. The hours must be spread evenly so enable the crew member to recover sufficiently.

b) 60 duty hours in any 7 consecutive days.

The flight duty period is also limited, but the limitations do not apply to flights with only one pilot and medical service flight, to which the national law is applicable. Limitations relate to aeroplanes with a multi-member crew and limit the flight duty period to 13 hours. These 13 hours will be reduced by 30 minutes for each sector (flight stage – which means an uninterrupted flight from place A to place B without landing between them) as from the third one, with up to a maximum limitation of two hours.

The maximum daily flight duty period is also affected by whether or not it starts in the window of circadian low (WOCL). This is the time between 02:00am and 05:59am, in which the human body is “programmed” to sleep and psychophysical efficiency is at the lowest level.

Part Q of Annex III also provides for the possibility to extend the FDP by a maximum of 1 hour, with a maximum number of extensions of 2 in any 7 days.

The rosters planned by operators should be designed in such a way as to end flights within the maximum flight duty period allowed. In order to meet this requirement, operators were obliged to take measures that change the roster or balance of duties in the crew, no later than at the moment when the actual operation exceeded the maximum FDP in 33% of flights covered by the roster within the season planned.

The so-called split duty period is allowed to be applied, if agreed by a competent authority (Point 6 OPS 1.1105). The split duty is applied in an operation based on an extended FDP, including an interval. Each operator can be obliged by the relevant authority to demonstrate that its extended FDP application ensures a balanced safety level.

It is also possible to extend the FDP for an increased number of flight crew members, in accordance with the principles set out by the authority.

The FDP includes the so-called block time, as it is defined in the English in part Q of Annex III (which can be understood as the time blocked). It the time from the moment an aeroplane first moves for the purpose of taking off until it finally stops at the scheduled end of the flight and all engines and propellers are shut down. Therefore, it starts when an aeroplane is still on the ground. Block hours is the total time when an aeroplanes moves on the ground and in the air and its engines are running.

Operators have been obliged to ensure that the total block times, to which a particular member has been assigned as an operating crew member, do not exceed:

a) 900 block hours in a calendar year;

---

24 OPS 1.1100, point 1.1
25 OPS 1.1105.
26 Ibid., p.1.
27 OPS 1.1105, point 4.1
28 OPS 1.1115 point 1.1.
29 OPS 1.1095, point 1.2
30 OPS 1.1100, point 1.2
b) 100 block hours within any 28 consecutive days.

According to OPS 1.1120 point 1, the limitations of flight duty, duty and rest periods can be modified in unforeseen circumstances\(^{31}\), but they must be adopted by the pilot-in-command, after consulting other crew members. However, in any circumstances, the maximum FDP cannot be extended by more than 2 hours, unless the number of flight crew members has been increased – in which case, the maximum FDP can be extended by a maximum of 3 hours\(^{32}\).

The rest period, laid down in OPS 1.1110, correlates with the duty period and the flight duty period. It is a continuous and defined period of time, during which flight or cabin crew members are free of all duties and airport standby (1.13 OPS 1.1095). Operators must ensure rest periods long enough to enable crew members to recover from the fatigue resulting from the preceding duty and adequate rest until the start of the next flight duty period (3.5 OPS 1.1090). The rest period is defined in terms of a minimum period, which means it can be longer than indicated. The minimum rest period, prior to the FDP commencing in the home port, must be equal to at least the length of the preceding duty period or 12 hours, depending on which is longer. When the FDP is supposed to commence outside the home port, the minimum rest period equals at least the length of the preceding duty period or 10 hours, depending on which one is longer. If the minimum rest period is supposed to be outside the home port, the operator must ensure the possibility of 8 hours sleep.

A minimum rest period must be periodically extended up to a one-week rest period of 36 hours, including two local nights, in a way that ensures that the time between the end of the one-week rest period and the beginning of the next one never exceeds 168 hours.

The rest period can be shortened by the authority, with the application of the operator, who is obliged to demonstrate that he will ensure an adequate level of safety\(^{33}\).

The operator has been obliged to ensure, that the impact of time zone crossing is compensated by additional rest, according to the provisions laid down by the authority (OPS 1.1110, point 1.3).

The operator should keep records for each single crew member\(^{34}\). The records must include: (1) block times; (2) time, length and end of each duty or flight duty (3) rest periods and days off the duty.

It should be noted that the legal standards included in EU-OPS are not working time standards but a legal administrative framework within navigation safety. As Raczkowski rightly points out, the employer as a carrier is obliged to follow them, but for the acts of infringement he will be held liable by virtue of the aviation law\(^{35}\). This

\(^{31}\) OPS 1.1120, point 1 part Q Annex III states: taking into account the need of a thorough analysis of the assumed cases below, during a flight operation, which starts at the moment of reporting to work, flight duty period limitation, duty and rest periods described in this part can be modified in unforeseen circumstances. Such modifications must be acceptable by the pilot-in-command after consulting other crew members, they must be also in all circumstances complying with the conditions below.

\(^{32}\) OPS 1.1120, point 1.1.

\(^{33}\) OPS 1.1110, p. 1.4.1 i 1.4.2

\(^{34}\) OPS 1.1135

\(^{35}\) In the case that the operator allows flight duty hours exceeding „extended maximum FDP limits”, administrative sanctions from the supervising authority come into play, applied on the base of Article 162 of the aviation law (a formal notice to remedy deficiencies on pain of suspension of the certificate). It is also possible that such situation leads to liability under Article 210 section 1 point 10 of the aviation law. With regard to the pilot-in-command, who allows knowingly that the extended FDP maximum limits are exceeded, the possibility of launching a legal procedure under Article 100 of the aviation law can be considered, on suspension or revocation of the license under Article 100 section 1 point 3 (comprises air safety when performing flight duties, to which he or she is entitled by the license).
excludes the possibility for lawyers to invoke these regulations and make request on this basis, i.e. overtime payments\textsuperscript{36}.

On 8 April 2008, Regulation 216/2008 on common rules in the field of civil aviation and EASA came into force\textsuperscript{37}. This regulation has been complemented by regulations implemented by the European Commission, which regulates particular aspects of aviation activities. The main purpose of these provisions is to maintain a high and uniform standard across the EU safety level of civil aviation.

According to Article 8 Regulation 216/2008, operating aircraft should comply with the basic requirements defined in Annex IV. According to point 7.f of the Annex, no crew member should allow their task achievement or decision making to deteriorate to the extent that flight safety is endangered because of the effects of fatigue, fatigue accumulation, sleep deprivation, number of sectors flown, night hours, etc. Rest periods must provide sufficient time to enable crew members to overcome the effects of the previous duties and to be well rested by the start of the following flight duty period. In point 8 f of Annex IV, it has also been noted that, for the purpose of flight safety, a rostering system must be applied for a flight or a series of flights. It needs to address flight time, flight duty periods, duty and adapter rest periods. Limitations established for the rostering system must take into account all relevant factors contributing to fatigue, in particular such as the number of sectors flown, time zone crossing, sleep deprivation, disruption of circadian cycles, night hours, positioning, cumulative duty time for given periods of time, sharing of allocated tasks between crew members, and also the provision of augmented crews.

The guidelines contained in Annex IV to Regulation 216/2008 are the basic criterion applicable by the European Commission when implementing regulations, according to Article 8 point 5 of Regulation 216/2008. In regulations, detailed provisions on aircraft operations will be laid down, including limitations of flight time, duty and rest periods. It should be noted that according to Article 8 point 6 ref. 5, with regard to commercial transportation by aeroplane, the pending regulation to be implemented should be based on common technical requirements and administrative procedures laid down in Annex III to Regulation (EC) No 3922/91. Certainly, the provisions of Annex II to Regulation (EC) No. 3922/91 expire when the regulations are implemented under Article 8 section 5 of Regulation 216/2008\textsuperscript{38}.

In the preamble of Regulation 1899/2006, in the clause (13), it was indicated that it is considered appropriate to carry out a scientific and medical assessment of the provisions concerning limitations of flight and duty time and rest requirements, as well as, where necessary, provisions related to crew members, within 2 years of the implementation of this regulation. On that basis, on 30 August 2008, Mœbus Aviation prepared the report “Scientific and medical evaluation of Flight Time Limitations”\textsuperscript{39}.

Taking into account the results of this report, and based on existing solutions (part Q Annex III), new EU provisions are being drafted. Based on the opinion\textsuperscript{40} prepared by the European Aviation Safety Agency (EASA), Regulation EC 83/2014 was approved in 29 January 2014.\textsuperscript{41} This regulation contains newly implemented guidelines on the limitations on flight and duty periods as well as on rest period requirements in the commercial aviation transportation (CAT) by aeroplane. Regulation 83/2014 constitutes newly implemented measure, referred to in point 8 section 5 and article 22 section 2 of Regulation (EC) 216/2008, and therefore, part Q of Annex III to regulation

\textsuperscript{38} Art. 69 section 3 Regulation 216/2008
\textsuperscript{40} https://www.easa.europa.eu/document-library/opinions/opinion-042012.
(EC) 3922/91 must be deleted, according to Article 69 section 3 of Regulation (EC) 216/2008. However, Part Q of Annex III to Regulation (EC) 3922/91 continues to apply until the expiry of transitional periods provided for in Regulation 83/2014 and with regard to operations, for which no measures have been established. It shall apply from 18 February 2016. By way of derogation, Member States may decide not to apply provisions ORO.FTL.205 subparagraph e) of Annex III to Regulation (EU) 965/2012, but continue to apply existing national provisions on resting during a flight until 17 February 2017.42

Regulation 83/2014 lays down common provisions in the fields which have been hitherto regulated by national law, according to Article 8 section 4 of Regulation of Council 3922/91 “EU-OPS”. They include provisions governing the following aspects:
- split duty period,
- rest compensating the impact of time zone crossing,
- shortened rest periods,
- extended flight duty periods due to rest on board during the flight,
- standby and other modes of remaining in the airport.

The regulation presents several changes with respect to the previous provisions. Among others, it establishes a better protection against cumulative fatigue. This is due to the limit of 1000 flight hours in 12 consecutive months and an additional limit of 110 hours in 14 days, and a longer period of extended regenerative rest period twice per month. There is also better protection against transient fatigue due to the extension of the rest period during, shortening of the flight duty period to 11 hours from 5:00pm to 5:00am, and shortening of the maximum FDP in a less advantageous time of day from 11 hours and 45 minutes to 11 hours and 15 minutes. Standby or other modes of remaining in the airport have been reduced to 16 hours, and there are provisions on shorter rest periods that ensure the possibility of 8 hours sleep.

Provisions of regulation 83/2014 do not exclude the possibility to ensure better protection on the basis of a national social and collective labor agreement with regard to work conditions, safety and hygiene, and also, apply without prejudice to relevant provisions. To take a greater account of specific national conditions or operating practices, Member States may grant and apply derogations from the regulation in question or, respectively, from related certification specifications, by applying rules which ensure a safety level which at least equals the safety level resulting from the provisions of this regulation44.

5. EU regulations of the working times of mobile workers (directives)
The rules of working times for mobile workers in civil aviation were laid down at the Union level in the provision of the Directive of Council 2000/79/EC on 27 November 2000. This concerned the European Agreement on the Organization of Working Time of Mobile Workers in Civil Aviation, concluded by the Association of European Airlines (AEA), the European Transport Workers’ Federation (ETF), the European Cockpit Association (ECA), the European Regions Airline Association (ERA) and the International Air Carrier Association (IACA).

On 22 March 2000, the Association of European Airlines (AEA), the European Transport Workers’ Federation (ETF), the European Cockpit Association (ECA), the European Regions Airline Association (ERA) and the International Air Carrier Association (IACA) signed the European Agreement on the organization of working times for mobile workers in civil aviation. The right instrument for implementation of the Agreement is the directive.

42 In Poland, by means of a decision of the President of the Civil Aviation Authority a deferred application of new provisions has been notified – see Communication of the President of the Civil Aviation Authority (ULC) of 1 September 2014, Journal of Laws ULC of 2014, position 61.
43 Calculation of the maximum basic FDP is based on the table instead on, as before, on calculations.
44 Point 5 of the preamble to Regulation 83/2014.
In point 11 of the preamble to Directive 2000/79/EC, it is stated that “In view of the highly integrated nature of the civil aviation sector and the conditions of competition prevailing in it, the objectives of this Regulation to protect workers' health and safety cannot be sufficiently achieved by the Member States and Community action is therefore required in accordance with the subsidiarity principle laid down in Article 5 of the Treaty”.

The personal scope of Directive 2000/79/EC has been defined by reference to the definition of mobile staff in Art. 2 section 7 of Directive 93/104/EC. A mobile worker is defined as any worker employed as a member of the travelling or flying personnel in an undertaking that operates transport services for passengers or goods by road, air or inland waterway. According to clause 2, section 2 of the Agreement, constituting the Annex to Directive 2000/79/EC, mobile staff in civil aviation means crew members on board a civil aircraft, employed by an undertaking established in a Member State.

The directive leaves Member States the freedom of defining, according to national legislation and practice, the concepts used in the Agreement, which have not been specifically prescribed, provided the definitions comply with the Agreement. Member States and/or social partners can maintain the minimum standards set out in the provisions of the directive and Agreement or they can introduce more favorable provisions.

By virtue of Art. 3 of Directive 2000/79/EC, Member States have to bring into force laws, regulations and administrative provisions necessary for the application of the Regulation, no later than by 1 December 2003.

In the Agreement, annexed to Directive 2000/79/EC, the following concepts have been defined: working time, flying staff in civil aviation and flight block-time.

According to clause 2, section 1 of Directive 2000/79/EC, working time means any period during which the worker is working, at the employer's disposal and carrying out his activity or duties, in accordance with national laws and/or practice. This definition agrees with the working time definition in Art. 2 section 1 of Directive 2003/88/EC of the European Parliament and Council, set in 4.11.2003, referring to some aspects of the organisation of working times. This Directive was entered into force on 2.8.2004 and rendered the Directive 93/104/EC invalid. It incorporates many regulations set out in the previous directive; however, it introduces considerable amendments and supplements. Directive 2003/88/EC extends the personal scope of its implementation by encompassing all workers but seafarers (Art. 1 section 3 of the Directive). The Directive does not lay down any new obligations for Member States, but has solely consolidated existing solutions. The case law of the Court of Justice and their views maintained their validity, especially those views concerning the working time concept, expressed in the doctrine of the work law in Directive 93/104/EC.

Directive 2003/88/EC defines minimum daily and weekly rest periods, maximum weekly working times, intervals, night work, shift work and minimum holiday periods.

In both directives referred to above, the concept of work has been defined through the concept of remaining at the employer's disposal. This means, that in some situations (i.e. following the command to refrain from work during a stoppage) physical performance is not necessary for the recognition of this time as working time. The classification

---

45 Point 9 of the preamble to Regulation 2000/79/EC.
46 Points 12 and 15 of the preamble and Art. 2 section 1 of Regulation 2000/79/EC.

Earlier, for several years, the Directive 93/104/EC has been in force, referring to some aspects of working time organization (EC Journal of Laws L 307 of 13.12.1993, p. 38), which has been amended by Directive 2000/34/EC of the European Parliament and Council of 22.6.2000, changing the abovementioned Regulation to cover sectors and activities excluded by this Regulation (EC Law of Journals L 195 of 1.8.2000, p. 41). Directive 2000/34/EC has stretched the personal scope of Regulation 93/104 by covering all employers. Regulation 93/104/WE did not apply to workers of the air, rail and road transport, sea, freshwaters and lake fisheries or activities of the education of doctors.
of a worker’s presence at the workplace as working time may not depend on the worker’s workload, but it is solely a
derivative of a worker’s obligation to remain available to the employer48.

The availability period starts at the moment when the workers reports for duty at the workplace or other place
designated for providing work, and ends with the full working day or, occasionally, later – at the moment of
cessation of activities tasked by the employer (i.e. in the case of the requirement to work overtime). The distinctive
feature of remaining at the employer’s disposal is the restriction of personal freedom for the employee, the extent of
which depends on the employee’s scope of employment. The employee remains at the employer’s disposal when he
or she is performing his or her normal duties or following his or her superior’s instructions, as well as when
partaking in activities in the interest of the workplace, even without an order. An employee remains at the employer’s
disposal when he or she behaves in a way that is aligned with purpose of the employment, i.e. provides the work
agreed between parties, or remains on standby, ready to work, and maintains contact with the employer, in
anticipation of instructions and directives from the employer49.

The place of work is of no relevance for the recognition of certain periods as “remaining at the employer’s disposal”,
provided it has been formally designated by the employer or the worker’s supervisors as a place for the execution
of work. This can, for example, be a worksite, onboard aircraft, an apartment or temporary residence of the employer.
To consider that an employee is present at the workplace, it is sufficient that the employer or the employee’s
supervisor are aware of that place and approve it, at least implicitly.

The concept of working times for flying staff includes the so called flight block-time. This is the time between an
aircraft first moving from its parking place for the purpose of taking off, until it comes to rest in the designated
parking position and all engines are stopped50. The concept of the flight block time is a narrower concept than the
concept of working time.

In clause 8, section 2 of the Annex to Directive 2000/79/EC, a limitation on maximum working time down to 2000
in a year has been introduced, of which the flight block-time has been limited to 900 hours. Additionally, the flying
personnel in the civil aviation industry should be provided at least seven local days off work in each calendar month
in the place of living (which may include any rest periods required by law) and at least 96 local days in each calendar
year51. Taking into account that the calendar year includes 52 weeks, and an average working week includes 40 hours,
totaling 2080 hours per year, it would be difficult in practice to exceed the established annual limit of 2000 working
hours. Also, the annual leave entitlement contributes to a decrease of the number of working hours per year52.

According to clause 3, section 1 of the Annex to Directive 2000/79/EC, flying personnel in the civil aviation
industry are entitled to paid annual leave for at least four weeks.

The concept of working time is firmly linked to the concept of rest period. According to Art. 2 point 2 of Directive
2003/88/EC, the rest period is any period that is not working time. Member States must ensure each employer sets a
minimum daily rest period of 11 uninterrupted hours53, and introduces a weekly rest period of 24 uninterrupted
hours. To this rest period, 11 hours of daily rest should be added. Where justified by objective and technical
conditions, or conditions concerning work organization, a minimum rest period of 24 hours is allowed to be
applied54.

48 See the verdict of Court of Justice of 1 December 2005 case Dellas and others, C-14/2004.
50 Clause 2 section 3 of the Agreement annexed to Directive 2000/79/EC.
51 Clause 9 of the agreement annexed to Directive 2000/79/EC.
52 See M. Raczkowski, Institution of working time of flying personnel of civil aviation in passenger transport, op. cit., p. 243.
53 Art. 3 of Directive 2003/88/EC.
54 Art. 5 of Directive 2003/88/EC.
Directive 2003/88/EC does not introduce the obligation to provide a rest period in each week. According to article 16a, it is possible to introduce the reference period of 14 days for calculating weekly rest, as specified in national legislation.

In Article 17, the Regulation makes provisions for exceptions regarding minimum rest periods for employees executing particular types of work. Derogations from minimum rest periods may be adopted by means of laws, regulations and administrative provisions, or by way of agreements between social partners, provided that equivalent rest periods are provided to interested workers. In exceptional cases, where for objective reasons it is impossible to provide equivalent rest periods, workers concerned must be afforded appropriate protection. Derogations may be adopted in the case of:

- activities where the worker's place of work and his place of residence are distant from one another, including offshore work, or where the worker's different places of work are distant from one another;
- activities involving the need for continuity of service or production, particularly dock or airport workers.

Directive 2003/88/EC does not define the overtime work concept, leaving the matter fully to the discretion of internal legal systems. Overtime work is described in Article 6b of the Directive, which specifies that an average weekly working time, including overtime work, may not exceed 48 hours.

It is assumed that the concept of duty period used in the provisions of part Q of Annex III (EU-OPS) refers to working time in Regulation 2000/79. The concepts are supposed to remain not in conflict with one another. Therefore, it is not necessary to set out a yearly FDP limit. The minimum is defined by administrative provisions (part Q of Annex III), as linked to safety and relating to the fatigue of aircraft crew members. Provisions for working time are seen in the context of yearly working time limits. Regulation 2000/79, clause (8), point 1 sets out that the working time should be looked at by taking into consideration any future Community legislation regarding flight and duty time limitations and rest requirements, and in conjunction with national legislation on this subject.

In regulation 1899/2006, clause (10) specifies that the provisions on flight and duty time limitations and rest requirements, as set out in Part Q of Annex III, takes into account the limits and minimum standards already established in Directive 2000/79/EC. The limits set out in that Directive should always be respected for mobile workers in the civil aviation industry. The provisions of Part Q of Annex III and other provisions approved pursuant to this Regulation should in no circumstances be broader and thereby provide workers with less protection.

6. Polish regulations on the working times of flying staff

In Poland, at the national level, the main legal act regulating the working times of flying staff is the law of aviation law, date to 3 July 2002\textsuperscript{56}, which is referred here as the Aviation Law.

Civil aviation includes all kinds of aviation except state aviation, i.e. state aircrafts, their crews and state airports used exclusively for departures and landings of state aircrafts\textsuperscript{57}.


\textsuperscript{56} i.e. Journal of Laws of 2013 No 1393.

\textsuperscript{57} Art. 1 section 1-3 of Aviation Law.
Provisions of the Aviation Law regulate the working times of aircraft crew members in air transportation by aircraft, and aircraft crew members in air transportation by helicopter and in the helicopter emergency medical service, in an employment relationship. Air transport is a flight or a series of flights, in which passengers, goods, baggage or mail are transported, for remuneration or hire.68

According to Art. 94 section 2 of the Aviation Law, a flight crew member is a person who holds a valid license or certification and is recorded in the state flight crew members registry or other adequate registry. Although, the provisions do not introduce the requirement of the employment relationship, de lege lata should be assumed so that the working time provision is applied exclusively to employees. This is demonstrated by the term “employer”, which is reserved for the employment relationship, used in the legislation in Art. 103 b section 2 and 3. According to Art. 3 Law of 26 June 1974 of the Labor Code,69 an employer is an organizational unit, or it may not have any legal personality and can refer to a person if they employ workers. In addition, the Aviation Law refers to Art. 103d for the application of the provisions in the Labor Code in matters concerning working times of aircraft crew members, which are not regulated in the provisions of articles 103-103c of the Law. Such unregulated cases in reference to aircraft crew members in air transportation by aircraft include overtime work and its settlement, night work compensation and work during holidays.

According to Art. 103 of the Law, the working time of aircraft crew members in air transportation by aircraft cannot exceed 8 hours per day and 40 hours per week on average in a determined settling period, not exceeding 3 months.60

In reference to aircraft crew members in long-haul flights61 rosters can be used, in which it is allowed to prolong the working time by up to 18 hours per day. In such rosters, the working time may not exceed 40 hours per week on average in a determined settling period, not exceeding 3 months. Work within the extended daily working time and average 40 hours per week in a determined settling period does not constitute overtime work.

Section 4 Art. 103 provides that the Minister of Transport is authorized to determine, in agreement with the minister responsible for work issues, the detailed settlement of working time of aircraft crew members in air transportation by aircraft, in accordance with the regulation. The Regulation will take account the intervals in the work and rest periods of the personnel, as well as conditions relating to the performance of activities. On that basis, the Minister of Infrastructure has issued, on 28 April 2014, a regulation providing detailed settlement conditions for the working time of aircraft crew members in air transportation by aircraft,62 which will be referred to from this point as the Regulation. The Regulation has replaced the existing Regulation of 13 December 2002 on the working times and rest periods of aircraft crew members and air traffic controllers.63

The Regulation of 13 December 2012 set out detailed rules for the working times of flight crew members in air transportation, general aviation, services providing aviation, the Duty of the Emergency Medical Service and Medical Transport, in the operation of flights on helicopters, as well as the working times of cabin crew members and part of the working time of air traffic controllers.

The Regulation of 28 April 2014, due to the restricted delegation in the revised Art. 103 section 4 of the Aviation Law, has exclusively covered the working time regulations for flight crew members in air transportation. The provisions of this regulation define the maximum period of flight duty in the case of flights with a single pilot and

68 Art. 2 point 13 of Aviation Law.
69 I.e. Journal of Laws of 1998 No 21, pos. 94 with amendments
60 Before the provision regulated also the working time of flight controllers. It has been amended with provisions on the amendment of law of 30 June 2011, the Aviation Law and several other laws Journal of Laws of 2011 No 170, pos.1015).
61 According to Art. 2 point 12 of the Aviation Law a long-haul is a single flight of a distance requiring a minimum of 8 hours flying time.
emergency medical flights. They complement the OPS 1 requirements laid down in part Q of Annex III to regulation 3922/91, according to art. 8 section 4 of Regulation 3922/91.

Also in the regulation of 28 April 2014, the times and rules for the provision of intervals in aviation operations have been defined, as well as rules for daily and weekly rest provisions and ordering and settling duties.

Some provisions of the Regulation are not coherent with those in the Aviation Law, as regarding working times. There is no doubt that the concept of flight duty time is not identical to the concept of working time, which is a wider concept and includes more periods than just the one of flight duty. In Annex No. 1 to the abovementioned Regulation, flight duty periods of a crew member were defined in a tabular form, depending on the moment of reporting for a flight and the number of sectors, which varies between 8 and 10 hours. In the basic working time defined in Art. 103 of the Aviation Law, the daily maximum standard working time equals to 8 hours. The working time referred to in Art. 103 section 2 of the Aviation Law allows the working time to be extended up to 18 hours, which is permitted only in long-haul flights.

The provisions of the Regulation, in a different way than the provisions of the Labor Code, govern the duty of crew members. According to § 2 point 5 of the Regulation, a duty means the readiness referred to in point 1.14 OPS 1.1095 in Part Q of Annex III to the Regulation 3922/91. This is a defined time period, during which the operator requires the crew member to be ready to accept a flight assignment, to position for the purpose of transfer to another duty position, or to take upon other duties without interruption of the rest period.

A duty can be undertaken in the airport, or in another place designated by the employer, or can be performed on-call. The limits of the duty period are subject to the time of notice and equal to 12 or 18 hours.

Standby in the airport is included in full in the total number of duty hours (OPS 1.1125 point 1.2). When a crew member takes upon flight duty immediately from the standby in the airport, 50% of the standby time counts as flight duty period but not as a sector.

The period of a duty performed at another place designated by the employer outside the airport or the on-call time counts as working time on a 25% duty period basis. If flight duties are taken upon at another place designated by the employer, 25% of the on-call time counts as the flight duty period.

<table>
<thead>
<tr>
<th>Moment of reporting for a flight (local time of the airport of departure)</th>
<th>Maximum number of sectors and the flight duty hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>06:00-06:59</td>
<td>1-4 sectors 5 sectors 6 sectors 7 sectors and more</td>
</tr>
<tr>
<td>07:00-13:59</td>
<td>9 hours 8 1/4 hours 8 hours 8 hours</td>
</tr>
<tr>
<td>14:00-17:59</td>
<td>10 hours 9 1/4 hours 8 1/4 hours 8 hours</td>
</tr>
<tr>
<td>18:00-21:59</td>
<td>9 hours 8 1/4 hours 8 hours 8 hours</td>
</tr>
<tr>
<td>22:00-05:59</td>
<td>8 1/2 hours 8 hours 8 hours 8 hours</td>
</tr>
</tbody>
</table>

64 According to § 2 point 10 of the regulation the flight duty period means the flight duty period referred to in point 1.6 OPS 1.1095 in Part Q of Annex III to Regulation 3922/91, which means it is the period when a person works onboard aircraft as aircraft crew member. The FDP starts at the moment when the operator requires the crew member to report for a flight or a series of flights; this period ends at the end of the last flight where he/she is an operating crew member.

65 A period, defined by the employer, from the moment of notifying the crew member who is on standby about the need to report for duty until the moment of reporting for duty (§ 2 point 2 of the regulation).

66 Annex 2 to the regulation.

67 § 14 section 1 of the regulation.

68 § 15 section 1 of the regulation.

69 § 16 sections 1 and 2 of the regulation.
The regulation of rules for counting on-call periods is an example of the fulfillment of duties set out in Annex III, Part Q of the Regulation 3922/91.

7. Summary

The analysis of the legal regulations for the working times of flying staff demonstrates the casuistry of provisions and their strict correlation with the specific character and practice of the activities of air carriers. However, significant difficulties in application and interpretation of these regulations are caused not by the size of the regulations, but by the fact that the provisions belong to different fields of law. It may seem that the rules of a “social” character (EU directives, Labor Code, Art. 103 of the Aviation Law) can be separated from those of an “administrative” character (EU regulations, implementing regulation). The position to separate working time provisions as social rules of labor law from provisions concerning duty period as rules related to flight safety, has been also expressed in the literature71.

On the other hand, however, they concern the same issue, which is the question of the flying staff remaining at the employer’s disposal. For example, if one refers to the basic concepts of “working time” and “duty time”, they differ in the way of maximum quantity calculation. In the working time regulations, daily standards are as fixed as the settling period. The average weekly standards are defined as the average and are in balance within the defined settling period. Meanwhile, in the duty period regulations, there is no fixed determination of a week or month. A week (7 days) or a month (28 days) remains flexible (it shifts and includes any 7 or 28 subsequent days) and within these periods, limits of 60 and 190 hours apply. The way “operating” provisions set out limits for the allowed duty period is specific to provisions aimed at ensuring safety. Thus, they achieve a similar aim to the working time regulations in the Labor Code, by restricting the allowed number of working hours. However, since these provisions are applicable for the purpose of air safety, they limit the allowed number of working hours in a particular way (by using the concept of duty period), while imposing a balanced distribution of working times.

71 M. Raczkowski, op. cit.