

AUTHORITY SUPERVISION OF THE TRANSPORT OF DANGEROUS GOODS BY AIR

Robert BALOGH, Lajos KATAI-URBAN, Bela SZAKAL, Gyula VASS, Zoltán LEVAI
Robert.balogh@katved.gov.hu, katai.lajos@uni-nke.hu, szakalbela1827@citromail.hu,
vass.gyula@uni-nke.hu, levaizoltandr@gmail.com

Abstract

As a result of long preparatory work, after the transformation of the disaster management system in 2012, from 2015, the Disaster Management will perform the official supervision of the transport of dangerous goods by air as an independent authority. Compliance with international transport regulations is carried out by carrying out inspections. The purpose of official controls is to increase aviation safety. Regular and consistent control of the transport of dangerous goods by air, the investigation of accidents and the sanctioning of deficiencies and omissions have become the main preventive activities of Disaster Management. The purpose of this article is to evaluate the regulatory experience with the transport of dangerous goods by air.

Key words

Disaster management, industrial safety, transport of dangerous goods by air, transport accidents.

Introduction

In Hungary, there are 129 civil airports in the register of the Transport Authority in 2020, however, only 5 of these international airports carry air transport of dangerous goods. [1] These airports are Budapest Liszt Ferenc International Airport, Debrecen International Airport, Győr-Pér Airport, Hévíz-Balaton International Airport and Pécs-Pagan Airport.

Dangerous goods are transported on a daily basis at Liszt Ferenc International Airport. At other, smaller international airports, dangerous shipments occur only on an ad hoc basis.

From 1 January 2015, the Disaster Management was given the power to control the transport of dangerous goods by air and to sanction irregularities. In order to protect human life and health and the environment, the control of the preparation of dangerous goods for carriage by air and the examination of dangerous goods received by air have become one of the priority tasks of Disaster Management.

This article presents the indicators of the official supervision of the transport of dangerous goods by air, as well as the development of accidents and incidents that occurred during the transport. The necessary publicly classified data for the preparation of the figures in the article were provided by the National Inspectorate of Industrial Safety of the National Directorate General for Disaster Management of the Ministry of the Interior (hereinafter: NDGDM IIS). The data can be requested from the NDGDM and is accessible to anyone.

Regulation of the transport of dangerous goods by air

In Hungary, similarly to the European Union, the rules for the transport of dangerous goods are laid down in separate legislation in the rail, road, inland waterway, maritime and air

transport sub-sectors. Compliance with the rules in international traffic is made mandatory by interstate and international treaties.

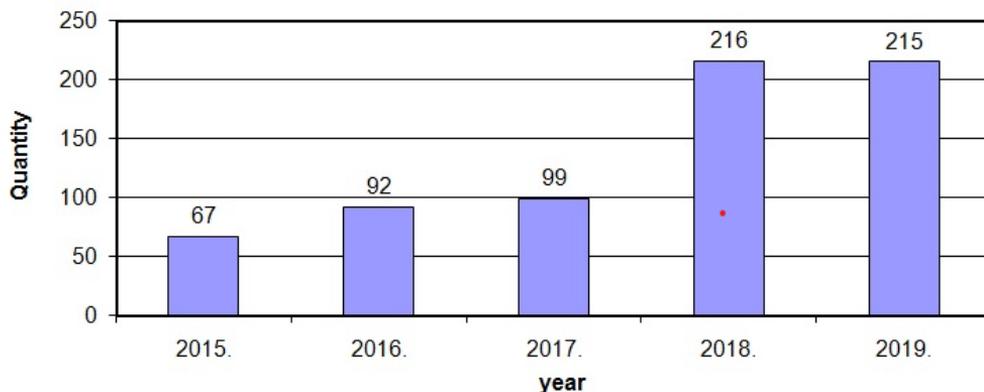
Appendix 18 to the Convention on International Civil Aviation, Safe Transport of Dangerous Goods by Air (ICAO TI - Technical Instruction). The Convention was promulgated in Hungary by Legislative Decree No. 25 of 1971. [2] Airlines also take into account the Dangerous Goods Regulations of the International Air Transport Association (IATA DGR) when transporting dangerous goods.

Act CXXVIII of 2011 on Disaster Protection and Amendments to Certain Related Acts. In addition to Act XCVII of 1995 on Aviation [3]. The 2012 amendment to Act [4] created the legal basis for the control of the transport of dangerous goods by air for disaster management bodies. Subsequently, after lengthy preparatory work, a Government Decree N. 313/2014 (XII. 12.) on the official control of disasters related to the transport of dangerous goods by air and the rules for imposing fines entered into force on 1 January 2015. [5], which specifies in detail the tasks of the disaster protection authority with regard to the control of the transport of dangerous goods by air and the sanctioning of irregular shipments.

Authority supervision of the transport of dangerous goods by air

The official authority of disaster management bodies covers the preparation of dangerous goods for transport by air, as well as the control of compliance with the legal requirements for the direct transport of dangerous goods received by air, as well as the transshipment and storage of dangerous goods at the airport. However, supervisory powers do not affect state aviation. The control of dangerous goods is carried out at the premises of the groundhandling organizations at the airport and, with the exception of the aircraft, to a small extent at the airport. A Government Decree N. 313/2014. (XII. 12.) [5], prescribes a prior notification obligation for the ground server for dangerous consignments, on the basis of which, according to the data received by the Disaster Management, inspections can be planned.

However, inspections cover not only pre-announced dangerous goods but also shipments that may contain pieces of dangerous goods, but the pre-notification was not made by the ground handling organization. Figure 1 shows the number of air shipments inspected by Disaster Management in 2015-2019. between.

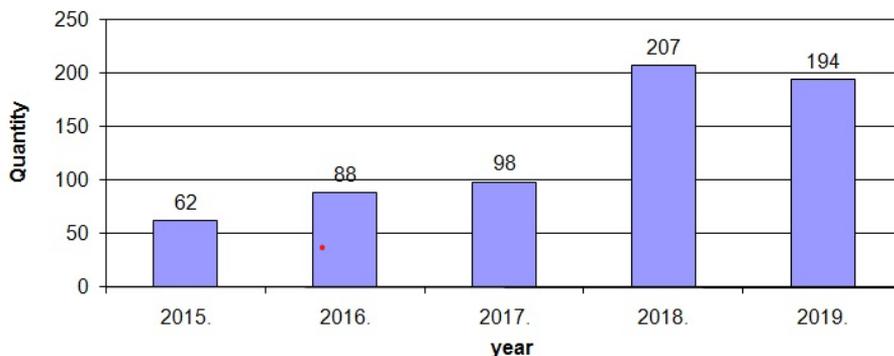


Created by Robert Balogh. Source: NDGDM IIS 2020.

Fig. 1

Number of air shipments inspected by Disaster Management between 2015–2019

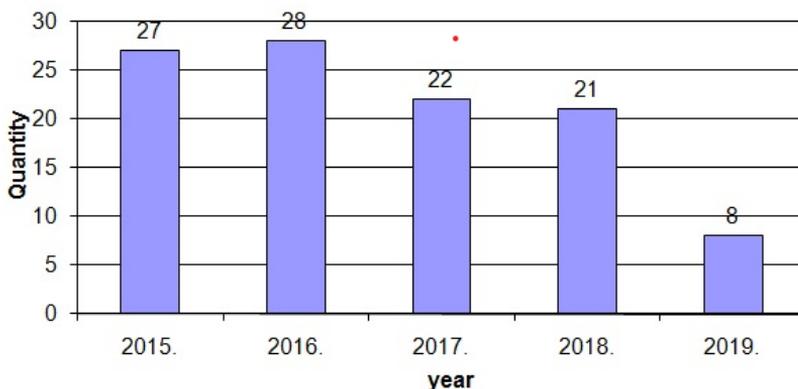
Figure 2 shows the number of airborne dangerous shipments inspected by Disaster Management in between 2015–2019.



Created by Robert Balogh. Source: NDGDM IIS 2020.

*Fig. 2
 Number of consignments of airborne dangerous goods inspected by the Disaster Management Service between 2015–2019*

Based on the above, it can be stated that the Disaster Management has increased the number of inspections year by year since the beginning of the official supervision of the transport of dangerous goods by air in 2015 and in 2018-2019. year. Figure 3 illustrates the development of the detected irregular shipments during the examination of the consignments, broken down by year.



Created by Robert Balogh. Source: NDGDM IIS 2020.

*Fig. 3
 Number of shipments of non-compliant aeronautical dangerous goods by air between 2015–2019*

It can be stated that the number of consignments that do not comply with the rules for the transport of dangerous goods by air has been continuously decreasing in the period under review, with the exception of 2016, as a result of the official supervision activities of the Disaster Management. Based on the experience of official inspections so far, it can be said that the companies involved in air transport, ICAO and IATA, which brings together airlines, meet

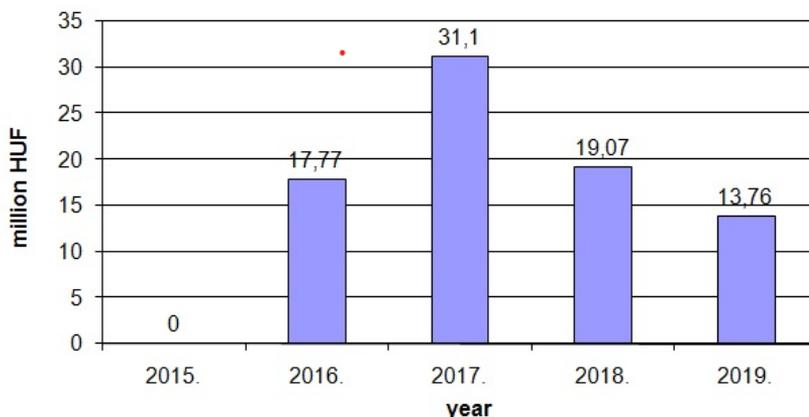
the strict system of requirements, but there are occasional shortcomings in the transport of dangerous goods. The most common problem during transportation and loading is the improper handling of packages containing dangerous goods. In these cases, the packaging usually suffers only surface damage, but it is also necessary that the dangerous goods have to be repackaged due to the damage. Another typical shortcoming is the improper marking and labeling of consignments.

With regard to ICAO inspections, simple and blatant damage to external packaging and cargo-forming equipment is already considered to be irregular in respect of consignments, as it is not known exactly what discontinuities have occurred internally due to external influences. The release (leakage, evaporation) of dangerous goods due to improper sealing is also considered to be a characteristic irregularity. In the case of overweight goods, it is often the case that the packaging is not selected properly, with a poorly designed load capacity. Lack of hazard labels, visibility defects and / or damage are also typical sources of error. Differences in designation and marking also occur in the transport documents (air waybills). [6]

Disaster Management may apply sanctions in case of violation of the rules related to the transport of dangerous goods by air, the system of which is regulated by Government Decree N. 313/2014. (XII. 12.) [5].

The Disaster Management may order the transport, transshipment, repackaging, detention or return of the transported dangerous goods to the consignor, use another mode of transport, and require the operator to carry out an inspection or repair. The person responsible for the detected irregularity or omission may be obliged to take the necessary measures to prevent the release of dangerous goods into the environment and to eliminate the danger, and the Disaster Management may impose a fine.

Figure 4 shows the evolution of fines imposed for irregular shipments of dangerous goods by air in 2015–2019. between.



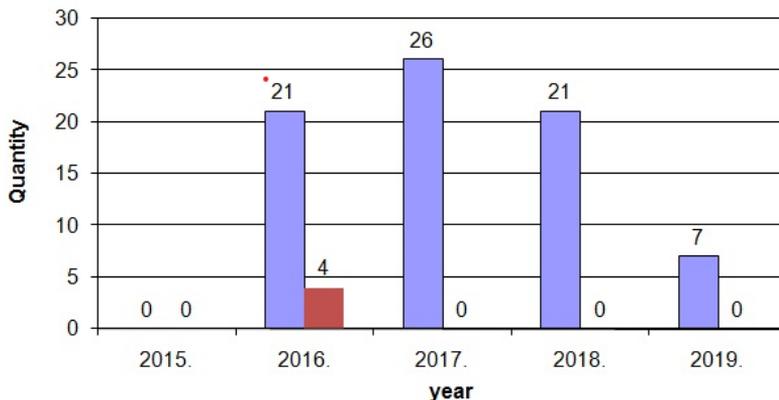
Created by Robert Balogh. Source: NDGDM IIS 2020.

Fig. 4

Development of fines for irregular air transport of dangerous goods between 2015–2019

In 2015, at the beginning of the official supervision activity, the Disaster Management waived the imposition of fines in case of detected irregularities and gradually introduced it from 2016 onwards. The amount of fines imposed reached the highest amount in 2017.

In the case of irregularities related to the transport of dangerous goods by air, fines will be imposed in decisions closing official proceedings, the number of which will change from 2015 to 2019. Figure 5 shows the period between.



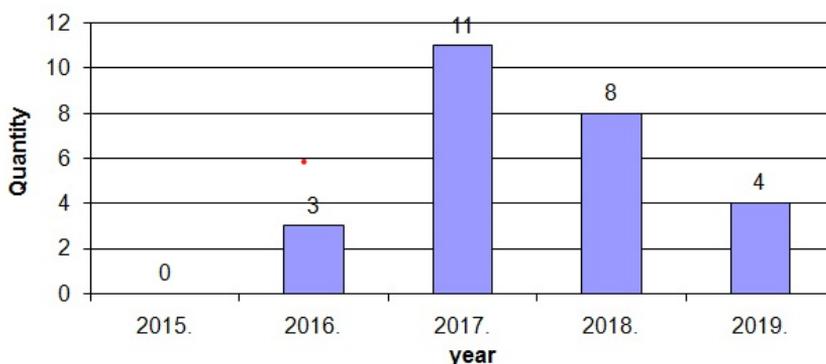
Created by Robert Balogh. Source: NDGDM IIS 2020.

Fig. 5

Number of fine decisions issued for irregularities in the transport of dangerous goods by air between 2015–2019

Figure 5. shows the fines issued during the first instance official proceedings in blue, and the appellate decisions in burgundy. The decision of the first instance authorities was appealed in 2016 only in 2016 and a decision issued by the second instance authority was issued.

The purpose of the large number of inspections carried out by the Disaster Management is not to impose fines, but to induce those involved in the transport of dangerous goods by air to fully comply with the rules of transport, thus preventing and minimizing the number of possible incidents and accidents. Events and accidents that occur during transport are typically leaks of the transported hazardous material from a consignment, the cause of which is damage to the packaging or improper sealing of the packaging. Figure 6 illustrates the development of the number of events and accidents.



Created by Robert Balogh. Source: NDGDM IIS 2020.

Fig. 6

Number of incidents and accidents related to the transport of dangerous goods by air between 2015–2019

As a result of the supervisory activities of the Disaster Management, the law-abiding behavior of the participants in the transport and the development of the safety culture can be observed, however, the event and accident related to the transport of dangerous goods by air occurred every year except 2015.

Summary

In Hungary, after a long legislative preparatory work following the entry into force of the Disaster Management Act, the Transport of Dangerous Goods by Air has been supervised by the Disaster Management since 2015. The supervision activity is also related to the fining of irregularities and the investigation of events and accidents that occurred during the transport of dangerous goods. The activity of official supervision covers not only the transport, but also the premises preparing the transport of dangerous goods and receiving the dangerous goods, and the economic organizations providing ground handling.

The purpose of carrying out a large number of inspections is to force those involved in the transport of dangerous goods to fully comply with the rules of transport, thus preventing and minimizing the number of possible events and accidents. The number of events and accidents in Hungary is low, but their occurrence does not only depend on the number and professionalism of the inspections.

Despite the law-abiding behavior of the participants in the transport of dangerous goods by air and the development of the safety culture, an event or accident occurred in every year, except in 2015, in which the dangerous goods were involved.

References

- [1] Közlekedési Hatóság Dokumentumtár. Repülőterek nyilvántartása [online]. [cit. 2020-09-27.] Available at: <https://www.kozlekedesihatosag.kormany.hu/hu/dokumentumtar?site=66234&site=66246&site=66242&site=66238&category=66907> Transport Authority Document Library. Register of airports.
- [2] 1971. évi 25. törvényerejű rendelet a nemzetközi polgári repülésről Chicagóban, az 1944. évi december hó 7. napján aláírt Egyezmény és az annak módosításáról szóló jegyzőkönyvek kihirdetéséről Decree-Law No. 25 of 1971 on the promulgation of the Convention on International Civil Aviation, signed in Chicago on December 7, 1944.
- [3] 2011. évi CXXVIII. törvény a katasztrófavédelemről és a hozzá kapcsolódó egyes törvények módosításáról. Act CXXVIII. of 2011 on Disaster management.
- [4] 1995. évi XCVII. törvény a légiközlekedésről. XCVII of 1995. Act on Aviation.
- [5] 313/2014. (XII. 12.) Korm. rendelet a veszélyes áru légi szállításával kapcsolatos katasztrófavédelmi hatósági ellenőrzésről és a bírság kivetésének szabályairól. Government Decree N. 313/2014. (XII. 12.) on the official control of disaster protection related to the transport of dangerous goods by air and on the rules for imposing fines.
- [6] VASS Gyula, LAJOS KÁTAI-URBÁN, ZOLTÁN CSÉPLŐ. A veszélyes áru légi szállításával kapcsolatos katasztrófavédelmi hatósági feladatok fővárosi tapasztalatai (Experience in the capital directorate of disaster management related to the transport of dangerous goods by air.) *Védelem Tudomány*. 2018, N. 3, pp. 91–99.