ISSN 2450-6869

Volume 3, No. 6, 2018

DEFENCE SCIENCE REVIEW

DOI: 10.37055/pno/118857

THE CROSSING OF A STATE'S AIR BORDER BY STATE-OWNED AND CIVILIAN AUTHORIZED AND UNAUTHORIZED AIRCRAFT

Original article

Jacek Krawczyk¹

Autor(s) CC BY 4.0 Licence

Abstract

Peer review:

Double blind

Keywords:

state aircrafts, state border, FIR EPWW, Air POLICING, RENEGADE

The aim of the article is to explore the situation when a state air border is crossed by civil and state-owned authorized and unauthorized aircrafts. Ways of influencing aircraft likely to make an unauthorized crossing are also presented. In addition, the article describes cooperation procedures applied by civil and military operational services during the Air POLICING mission. In accordance with the Convention on International Civil Aviation, civil aircraft may cross an air border in the airspace once the need to adapt to the requirements of the airspace in which the aircraft performs air operations is met. However, the entry of a foreign state aircraft into the airspace is possible after a special clearance has been granted and must be carried out in accordance with the terms of such clearance. The article also discusses the actions taken when the aircraft crosses the air border in a manner inconsistent with the conditions or performs an air operation contrary to the clearance of the air traffic services units and procedures adopted by national and international civilian and military organizations.

¹Col (ret) Jacek Krawczyk, PhD, Eng. – A graduate of the Air Force Academy in Dęblin and Warsaw Institute of Technology. Scientific interests: Air transport, Unmanned Aerial Vehicles (capabilities, innovations, challenges and expectations), Safety in the airspace, Air traffic management, Threats from Russia, Civil and state-owned aircraft flights over the high seas; jkkrawczyk2@gmail.com.

Introduction

The aim of the article is to explore a situation where a state air border is crossed by civil and state-owned authorized and unauthorized aircraft.

Such objectives imply the need to consider several sub-issues identified as follows:

- What legal acts regulate this situation?
- What are the standing procedures?
- What institutions are responsible for the process of civil and state-owned aircraft crossing air borders?
- What are the main differences in legal regulations regarding civil and military aircraft crossing an air border?
- How can aircraft that have crossed the state border in the airspace in an unauthorized way and perform air operations contrary to air traffic regulations be influenced?
- How do operational services carry out their activities while performing the AIR POLICING mission?

A foreign state-owned aircraft crossing the air state border by

The border of the Republic of Poland is the vertical surface crossing the border line separating the territory of the Polish state from the territory of other states and the high seas. The state border also divides the air space, water and the interior of the earth.

The course of the state border on land and the separation of internal sea waters and the territorial sea with neighbouring countries are defined in international agreements concluded by the Republic of Poland. The state border at sea runs 12 Nautical Miles from the coastline, specified in separate regulations.

The Republic of Poland exercises its sovereignty over the land territory and the inside of the earth beneath it, the internal sea waters and the territorial sea and the bottom and the inside of the earth below them, as well as in the airspace located above the land, internal sea waters and the territorial sea. The state air border is crossed in the airspace by civil and state aircraft. According to the Convention on International Civil Aviation, signed on 7 December 1944 (Journal of Laws of June 26, 1959)², state aircraft are those used by military, customs and police services.

² Convention on International Civil Aviation signed on December 7, 1944 (Journal of Laws of June 26, 1959), http://www.ulc.gov.pl/ download/prawo/prawo miedzynarodowe/konwencje/konwencja 1010.pdf

However, according to the Act of Parliament of Republic of Poland of 3 July 2002 "Aviation Law" (Journal of Laws 2002 No. 130 item 1112), Polish state aircraft include:

- a) aircraft used by the Armed Forces of the Republic of Poland (military aircraft);
- b) aircraft used by organizational units of the Border Guard, Police and State Fire Service (aircraft of public order and law enforcement services).

The aircraft operator is the owner or other entity entered as an operator in the aircraft register³.

The above definitions are mutually exclusive due to the fact that that the Convention on International Civil Aviation defines the type of aircraft, by user and nature of its operations, while the Act defines the type of aircraft, by an entry in the appropriate aircraft register⁴.

According to the Convention on International Civil Aviation, the entry of foreign state aircraft into an airspace is possible after special authorization has been granted and must be carried out in accordance with the terms of such authorization taking into account the safety of civil aircraft air navigation⁵.

According to the Act on the Protection of the State Border, the crossing of the state air border and the flight of a foreign military aircraft in the airspace of the Republic of Poland may take place on the basis of permission issued by the Commander-in-Chief of the Armed Forces General Command, granted at the request of the entity concerned.

Regulation of the Minister of National Defence of 5 January 2005 on crossing the state border and flights of foreign military aircraft in the airspace of the Republic of Poland – as amended (Journal of Laws of 2015, items 930 and 1336, and of 2016 item 904 and 1954) outlines:

- 1. The procedure to be followed when applying for permission to cross the state border and the flight of a foreign military aircraft in the airspace of the Republic of Poland;
- 2. The application form for permission to cross the state border and flight of a foreign military aircraft in the airspace of the Republic of Poland;
- 3. The conditions regulating the flight of a foreign military aircraft in the airspace of the Republic of Poland⁶.

_

³ Aviation Law Act of 3 July 2002 Art. 34 (Journal of Laws of 2012, Item 933, as amended).

⁴ Convention on International Aviation ..., op. cit.

⁵ Ibidem.

⁶ Regulation of the Minister of National Defence of 5 January 2005 on crossing the state border and flights of foreign military aircraft in the airspace of the Republic of Poland – as amended (Journal of Laws of 2015, items 930 and 1336, and of 2016 item 904 and 1954).

The basis for a state aircraft in the airspace of another state performing an air operation is the submission of a Diplomatic Application with a request for permission for a state aircraft to perform an air operation in the state airspace en route to or in the destination state. The Diplomatic Request is sent by – official representatives of the countries in which the aircraft is registered or in favour of which the air operation is carried out – to the appropriate organizational unit from which permission to cross the state border in the airspace will be issued.

Diplomatic clearance is issued by organizational units designated to issue this type of approval on behalf of the state. The Operation Commander of the Armed Forces shall give permission to cross the border in the airspace of the Republic of Poland. The applicant receives authorization or refusal of authorization within a specified period of time. On behalf of the Republic of Poland, the Applicant receives an approval or refusal to enter Polish airspace at least 1 business day before the date of entry of a foreign military aircraft specified in the application.

Unauthorized aircraft crossing the state air border

In accordance with the Convention on International Civil Aviation Art. 3c. No state aircraft of a contracting State shall fly over the territory of another State or land thereon without authorization by special agreement or otherwise, and in accordance with the terms thereof.

In the absence of the above authorization, the provisions of the Act of 12 December 1990 on the protection of the state border Art. 18b 1. may apply, stating that a foreign civil and military aircraft may be called by the State Air Traffic Management Authority (Polish Air Navigation Services Agency) to: leave the airspace of the Republic of Poland, change the direction or altitude of the flight, land at the indicated airport or carry out other instructions to decease from airspace violations⁸.

In the event of failure to comply with any such appeals, the aircraft may be intercepted by a military aircraft and subject to identification and attempt to establish radio communication and eye contact in order to guide the aircraft to the correct direction or altitude or force landing at the indicated airport. If a foreign military aircraft fails to comply with any of the appeals and orders, then warning shots may be fired and if it still does not

http://prawo.sejm.gov.pl/isap.nsf/download.xsp/WDU20050110080/O/D20050080.pdf

_

⁷ Convention on International Aviation ..., op. cit.

⁸ Act of 12 December 1990 on the protection of the state border ..., op. cit.

follow the instructions of the intercepting crew, it may be destroyed. This regulation applies to a foreign civil aircraft transporting people on board with the intent to use the aircraft as a means of terrorist attack.

It should be assumed that the commander of the aircraft must receive an unambiguous decision regarding the use of armaments, and the person representing the appropriate authority in the state must have full and clear authority to issue the decision to use armaments on all aircraft where there are indications that they may be used as a means of terrorist attack. The act on the protection of the state border contains a provision stating that the state air traffic management authority may proceed with the activities referred to in Article 18b. 1. in relation to a foreign civil aircraft that crossed the state border contrary to the provisions of the Act of 3 July 2002 "Aviation Law" or international agreements. In view of the above, the question arises about the possibility of influencing an aircraft that had taken off from the territory of Poland and does not comply with the instructions of the State Air Traffic Management Authority.

Coordination of Air Policing Mission

The Air POLICING mission is a special type of operation during peace and crisis, implemented by the NATO Air Defence Quick Reaction Alert (QRA) crews to ensure the integrity of NATO air space, protect the population and armed forces against air attack, and provide assistance to aircraft crews in distress. During its implementation, the operational services of the Air Operations Center – Air Component Command (AOC-ACC) and the Polish Air Navigation Services Agency (PANSA) cooperate with each other. Decision-makers exchange information with each other or authorize their subordinate staff to cooperate. The exchange of information on the implementation of the Air POLICING mission takes place only through the links dedicated to pass the correspondence. In the event of their failure, correspondence is carried out according to a predetermined procedure.

⁹ Ibidem.

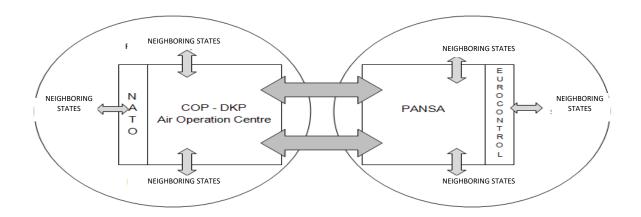


Fig. No. 1. The exchange of information between the services of the State Air Traffic Management Authority and the Air Defence Command Authority.

Source: own study.

The Air Traffic Management System of the Polish Air Navigation Service Agency (PANSA) in the implementation of the Air POLICING mission works closely with the Polish Air Defence Command System (AOC-ACC) as shown in Figure 1. The operational services provide each other with information about the danger in the airspace, the radar picture (air picture), FPL (Flight Plan) submitted, current operational changes, airspace structures and air traffic flow.

PANSA cooperates with the Air Traffic Management Centres of neighbouring countries and receives information about aircraft that have been given a RENEGADE status (a term used to describe an aircraft that can be used as a mean of terrorist attack by air) or which are likely to be granted such a status, and fly towards Polish airspace. Information about the above-mentioned aircraft flight is immediately delivered to the Air Operations Center – Air Component Command – which, after consulting the representatives of NATINADS (NATO Integrated Air Defence System), makes a decision by selecting the optimal variant of the implementation of the Air POLICING mission.

In order to develop optimal management of current air navigation, PANSA operational services analyse the current situation in the airspace, air traffic flow and the possibility of providing air navigation services.

Having timely information, operational services have the comfort of optimally selecting the airport where the aircraft with the RENEGADE status should land and decide where it should be encountered by the intercepting aircraft. Regardless of whether the

decision is made in a time deficit or within a time limit allowing for free decision making, the Operational Services of AOC-ACC cooperate with the relevant state authorities in the field of crisis response and with NATO operational services.

If a civil aircraft crosses the state air border, or performs a flight in the Polish airspace without permission or does not comply with the terms of the permission issued and did not comply with the appeals referred to in art. 18 b paragraph 1 of the Act on the Protection of the State Border and can be used as a mean of terrorist attack by air, it can be considered as a RENEGADE category aircraft.

The aircraft is qualified as RENEGADE category by the Duty Commanding Officer of the Air Defence Command (DCO ADC), as appropriate to meet the following criteria by a foreign civil aircraft. The aircraft referred to above may be classified in the following three categories: Suspect RENEGADE, Probable RENEGADE or Confirmed RENEGADE if the following criteria are met:

The "Suspect RENEGADE" category is applied to a civil aircraft with unspecified intentions or if two or more intentions are detected from the following conditions:

- it violates FPL regimes;
- it refuses to comply or does not respond to the instructions of the State Air Traffic Management Authority, civil and military airport air traffic services units or air defence command units;
- it unexpectedly changes its flight parameters;
- there is a break in radio communication, especially in connection with the change of flight parameters;
- there has been a change in secondary radar transponder codes or excessive use of the identification signal without the prior clearance of the State Air Traffic Management Authority;
- the crew uses non-standard phraseology or other non-compliant correspondence have been reported with the procedure for changing radio correspondence;
- code 7500 (aircraft hijacking), 7600 (loss of communication) or 7700 (emergency state) has been selected in Mode 3/A;
- there was a radio transmission not related to flight procedures;
- the secondary radar transponder signals have been interrupted or discontinued;
- notification has been received from other public authorities, neighbouring countries or international organizations or non-governmental bodies about the aircraft's intentions;
- an unspecified threat of violence has been received through a third party;

- notice has been received that on board the aircraft there may be an object, device, substance or other dangerous material that may be used in a terrorist attack.
- The "Probable RENEGADE" category is applied when:
- other aircraft have been detected that are not following the instructions of the State Air Traffic Management Authority;
- a civil aircraft classified as "Suspected RENEGADE" still fails to comply with the instructions of the State Air Traffic Management Authority or the Air Defence Command;
- a civil aircraft classified as "Suspected RENEGADE" refuses to carry out orders or does not respond to orders and signs given to it by the intercepting aircraft commander.
- "Confirmed RENEGADE" status is applied to a civil aircraft if it simultaneously meets the following criteria:
- the intercepted and recognized civil aircraft still does not carry out the instructions of the intercepting aircraft commander, the State Air Traffic Management Authority and Air Defence Command authorities;
- the information available confirms without any doubt that the civil aircraft is to be used as a means of terrorist attack.

Aircraft on QRA in the Polish airspace in the AIR POLICING mission perform air operations in the ALFA (real) and TANGO (training) zones. The ALFA zone is 1 degree longitude by 0.5 degree latitude, called the ALFA zone. The activation and deactivation of ALFA zones is decided by Senior Operations Officer AOC-ACC or Senior Duty Officer AOC-ACC in consultation with SUP ATM (Supervisor Air Traffic Management). The ALFA zone in the controlled airspace is active when all aircraft in controlled traffic are moved out beyond its horizontal or vertical boundaries in order to take QRA (I) (Quick Reaction Alert Interceptor) actions on the ALFA SCRAMBLE signal. Active ALFA zones are unclassified airspace.

TANGO zones are used as part of the Air POLICING mission. They are built on the basis of TSA (Temporary Segregated Area) zones in the unclassified airspace class. TSAs defined by horizontal and vertical boundaries are for the exclusive use of a specific user at a given time and height range. The implementation of the Air POLICING mission in a TSA is carried out on the basis of ongoing airspace coordination in the relation between the AOC-ACC duty service and PANSA.

After an aircraft is classified as RENEGADE, operations services from AOC-ACC and PANSA undertake cooperation to ensure safety in the airspace and on the ground. An aircraft with RENEGADE status is monitored and an analysis is carried out to make right decisions on counteracting the threat from the air. Military, non-military and civil services are informed about the possibility of their use and the status of the current threat. The PANSA air traffic and airspace management services secure the airspace in such a way as to optimally isolate other air traffic from RENEGADE category aircraft in its flight path and in the airspace where it is likely to be able to perform air operations, including the landing approach procedure. The authorities of any endangered cities are also informed to launch the procedure for counteracting airborne hazards.

Summary

According to the Convention on International Civil Aviation, a state aircraft crossing the state air border must have the appropriate clearance received from the appropriate state authorities, on the basis of a submitted Diplomatic Application. The document must be submitted sufficiently in advance, and contain the necessary information regarding the date of crossing the state border, type of aircraft, alternate and destination airports as well as the cargo carried. The relevant organizational units issue or refuse such clearance on behalf of the state within a time limit allowing the flight operations organizer to prepare for the flight, change the route or submit a new Diplomatic Application.

If a foreign aircraft does not perform an air operation in accordance with the terms of the clearance received, the procedures described in the "Operational Cooperation Agreement between the Polish Air Navigation Services Agency and the Air Operations Centre – Air Component Command in the scope of the AIR POLICING mission" may be initiated in relation to it.

Military, non-military and civil services are involved in coordinating operations of operational services after any aircraft have been assigned the RENEGADE category. In addition, foreign civil and military institutions and operational services of neighbouring countries are involved in the coordination process. In order for such undertakings to be coordinated quickly and safely, it is necessary to conduct regular exercises and trainings, use appropriate procedures and analyse cases with conclusions drawn from previously occurring events of this type.

In addition, in order to minimize ventures related to Air POLICING missions and in order to maintain an appropriate level of safety both in the air and on the ground, it is

necessary for flight crews to perform air operations in accordance with the terms of the clearance received and in accordance with the submitted FPL. This will allow smooth air navigation management by designated civil and military agencies to take appropriate and safe decisions.

References

Act of 3 July, 2002 Aviation Law (Journal of Laws of 2012, pos. 933, as amended.)

Act of 8 December 2006 on the Polish Air Navigation Services Agency (Journal of Laws 2006.249.1829);

Act of 3rd July 2002 – Aviation Law (OJ 2017.959) as amended.

Act on the protection of the state border of October 12, 1990 (Journal of Laws of 2017, item 660);

Agreement on operational cooperation between the Polish Air Navigation Services Agency and the Air Operations Center – Air Component Command in the implementation of the AIR POLICING mission.

Eurocontrol, Airspace management – Single European SKY (SES) Regulation, Eurocontrol Final Report on European Commission's Mandate, Released Issue Edition 1.0, 30 December 2004.

EUROCONTROL, Airspace management – Single European SKY (SES) Regulation, EUROCONTROL Final Report on European Commission's Mandate, Released Issue Edition 1.0, 30 December 2004.

EUROCONTROL, Concept of the Flexible Use of Airspace (FUA). December 2004.

ICAO, Air Traffic Management Doc. 4444. Annex to guidelines No. 8 of the President of the Civil Aviation Office of August 26, 2015.

ICAO, Annex 11 Air Traffic Services. Eighth Edition, July 2004.

ICAO, Annex 12 Search and Rescue, Eighth Edition, July 2004.

ICAO, Annex 13 Aircraft Accident Investigation, Eleventh Edition, July 2016.

ICAO, Annex 15 Air Information Services, Fifteenth Edition, July 2016.

ICAO, Annex 2 Air Traffic Regulations, Tenth Edition, July 2005.

ICAO, ULC, DOC 9756, Manual of Aircraft Accident and Incident Investigation, Warsaw, 2015.

International Civil Aviation Convention signed on 7 December 1944. (OJ of 26 June 1959).

PANSA, AIP Polska – Aeronautical Information Publication – Poland, Warszawa 2018.

Regulation of the Minister of Infrastructure dated June 11, 2010 on ban or restrictions concerning flights for the period longer than 3 months (Dz. Nr 106, Poz. 678).

Regulation of the Minister of Infrastructure dated March 11, 2004 on detailed and technical air traffic regulations (Journal of Laws No. 44, Item 414).

Regulation of the Minister of Infrastructure dated March 11, 2004 on rules of operation of air traffic services (Journal of Laws No. 44, Item 415).

Regulation of the Minister of Infrastructure dated March 8 2004 on the division and detailed rules for the use of Polish airspace and the methods of cooperation of the state air traffic management agency with civil and military airport air traffic services units (Journal of Laws No. 44, Item 413).

Regulation of the Minister of Infrastructure dated November 25, 2008 on the structure of Polish airspace and detailed conditions and manner of using that space. (Journal of the Laws of 28 November 2008, item.1324 as amended).

The act of 30 July 2011 amending the Aviation Law act and some other acts. Journal of Laws No 170 item 1015.