

SAFER SKIES CONSULTATIVE COMMITTEE

Conflict Zone Airspace: Common Questions & Answers



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Glossary

AIC – Aeronautical Information Circular

AIP – Aeronautical Information Publication

ANSP – Air navigation service provider

ATS – Air traffic services

AVSEC – Aviation security

EASA – European Union Aviation Safety Agency

EGRICZ – Expert Group on Risk Information Overflying Conflict Zones

FIR – Flight information region

IATA – International Air Transport Association

ICAO – International Civil Aviation Organization

MH17 – Malaysia Airlines Flight 17

NOTAM – Notice to Airmen

OSINT – Open source intelligence

PS752 – Ukraine International Airlines Flight 752

SARPs – Standards and Recommended Practices

SSCC – Safer Skies Consultative Committee

Q&A – Question and Answer

Definitions

Aeronautical Information Circular: a notice containing information on flight safety, air navigation, technical, administrative or legislative matters.

Aeronautical Information Publication: a publication issued by or with the authority of a State and containing aeronautical information of a lasting character essential to air navigation.

AIP Supplement: temporary changes to the information contained in the AIP which are provided by means of special pages.

Aircraft operator: operators of aeroplanes or helicopters authorized to conduct international commercial air transport operations or involved in international general aviation.

Air navigation services: includes air traffic management, communications, navigation and surveillance systems, meteorological services for air navigation, search and rescue and aeronautical information services/aeronautical information management. These services are provided to air traffic during all phases of operations (approach, aerodrome and en route).

Air navigation service provider: any entity providing air traffic management and/or other air navigation services mentioned in the definition for air navigation services.

Appropriate air traffic services authority: the relevant authority designated by the State responsible for providing air traffic services in the airspace concerned.

Conflict zone: areas where armed conflict is occurring or is likely to occur between militarized parties and is also taken to include airspace over areas where such parties are in a heightened state of military alert or tension, which might endanger civil aircraft.

Hazard: a condition or an object with the potential to cause or contribute to an aircraft incident or accident.

Notice to Airmen: a notice distributed by means of telecommunication containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.

Overflying: passing over terrestrial areas (land or sea) at cruising altitude.

Risk: the potential for an unwanted or calculated outcome resulting from an occurrence. Risk can be estimated by considering the likelihood of threats, vulnerabilities and consequences or impacts.

Risk mitigation: the process of incorporating defences or preventive controls to lower the severity and/or likelihood of a hazard's or threat's projected consequence.

Safety: the state in which risks associated with civil aviation activities, related to or in direct support of the operation of aircraft, are reduced and controlled to an acceptable level.

Security: safeguarding civil aviation against acts of unlawful interference. This objective is achieved by a combination of measures and human and material resources.

State of the Operator: the State in which the operator's principal place of business is located or, if there is no such place of business, the operator's permanent residence.

Threat: a man-made occurrence, individual, entity, or action that has, or indicates, the potential to harm life, information, operations, the environment and/or property.

Vulnerability: factors or attributes that render an entity, asset, system, network or geographic area open to successful exploitation or attack or susceptible to a given threat or hazard.

1. Background

Introduction

The Safer Skies Initiative

On February 14, 2020, in response to the downing of Ukraine International Airlines Flight 752 (PS752), Canada established the global Safer Skies Initiative. Building on the important work accomplished by the Netherlands and the International Civil Aviation Organization (ICAO) after the downing of Malaysia Airlines Flight 17 (MH17) in 2014, Safer Skies aims for States to take immediate action to reduce risk, while also promoting improvements to the global aviation system.

The Safer Skies Consultative Committee (SSCC) is part of this larger initiative and is a venue to consider and support activities and efforts to mitigate the shared risks conflict zones pose to global aviation.

The Safer Skies Consultative Committee

The SSCC provides a formal international platform to consolidate discussions on all conflict zone-related matters. It is made up of subject-matter experts from States representing all ICAO regions, the civil aviation industry and international aviation organizations. The SSCC is now a prominent international committee where members share best practices, facilitate information-sharing and recommend international standards, guidance and training on mitigating risks to the international civil aviation community posed by conflict zones. It also advocates for improvement on all matters related to conflict zones within ICAO structures. The SSCC meets regularly to maintain momentum on the Safer Skies Initiative.

As part of its commitment to information-sharing and State capacity building related to mitigating conflict zone risks, the SSCC produces information papers that are shared with the international civil aviation community through the [SSCC online portal](#). *Conflict Zone Airspace: Common Questions & Answers* is the first of many products to be developed and shared. The SSCC invites you to check the portal regularly for updates on the Safer Skies Initiative and the publication of information products for the civil aviation community.

The Safer Skies Forum

The Safer Skies Forum, an international venue, is one of the SSCC's deliverables. The Forum brings States, international organizations and the civil aviation industry together with the goal of establishing a common set of principles and practices to better protect passengers from the risk of flying over or near conflict zones. The first Forum took place in December 2020 and brought together over 400 participants from 82 countries and 31 industry stakeholders to share conflict zone risk expertise and engage in discussions focused on best practices and lessons learned with respect to risk mitigation strategies.

Participants actively engaged in discussions and asked many important questions about managing the risks posed to civil aviation by conflict zones. Due to time constraints, it was not possible to address all those important questions during the Forum. This Q&A serves as a backgrounder document on managing conflict zone risk and is intended to support States looking to learn about conflict zones, and develop their own programs to manage the risks they pose to civil aviation.

The Safer Skies Forum is intended to become an annual event. The next Forum will be held in 2022, in person, if it is safe to do so, with a live-stream option available so as to secure the highest possible number of participants. The second Safer Skies Forum will be hosted by Canada, with hosting duties rotating among SSCC members in the following years.

Responsibilities

Various parties are involved in the decision as to whether a civil aircraft should fly through a potentially dangerous airspace, i.e., the State that manages the airspace, aircraft operators, air navigation service providers (ANSPs), the State of the Operator, ICAO, regional civil aviation authorities and other stakeholders. This Q&A mainly focuses on the roles of the three key stakeholders, briefly described below.

The information contained in this Q&A is drawn largely from ICAO's *Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones* (Doc 10084), 2nd Edition.

The State that manages the airspace

Individual States are responsible for the safety of civil aircraft, both national and international, flying in their sovereign and delegated airspace. The appropriate ANSP is responsible for ensuring that a safety risk assessment is conducted, as soon as practicable, to identify activities potentially hazardous to civil aircraft, such as the presence of threats from a conflict zone. If any such threats are identified, the ANSP is required to implement appropriate risk mitigation measures in their State's sovereign and delegated airspace. These risk mitigation measures may include, but are not limited to, an airspace advisory or restriction, or the temporary withdrawal of established air traffic services (ATS) routes or portions thereof. Advisories and restrictions are promulgated through aeronautical publications known as Notice to Airmen (NOTAM), Aeronautical Information Publication (AIP) supplements and Aeronautical Information Circulars (AIC).

State of the Operator/Registry

The State of the Operator/Registry is the country in which the aircraft operator's principal place of business is located or, the operator's permanent residence. Although aircraft operators are responsible for their own operations, the State of the Operator/Registry

should maintain adequate ongoing oversight of these aircraft operators, including monitoring of their risk management systems.

Some State civil aviation authorities provide information, issue recommendations or restrict their aircraft operators from overflying foreign airspace deemed unsafe. In some States, these advisories and restrictions are transmitted through aeronautical publications such as NOTAM, AIP, or AIC issued by the State. These publications are intended for aircraft operators and may apply to operations within or outside the State's sovereign airspace.

Aircraft Operators

Aircraft operators are responsible for ensuring that proper risk assessments have been conducted, and that proper mitigations have been implemented before a flight is allowed to take off. This should include assessing areas where armed conflict has the potential to pose a risk to aviation. Various sources should be used to inform this assessment, including government advisories.

Now that you have a basic understanding of the roles and responsibilities of parties involved in the management of airspace, we will turn to the Q&A.

2. Questions and Answers

Theme 1 - Intelligence

1. How should States approach the monitoring of conflict zones?

Each State should establish an authority responsible for monitoring conflict zone airspace. The authority should search unclassified internet sources, which can range from private Twitter feeds and mainstream media outlets to specialized commercial information clearing houses, for relevant information. The results should then be validated for accuracy, as the credibility of information contained in these open sources can vary. After verifying the accuracy of the information, the authority should use it in their decision-making process. State authorities should also establish relationships with their respective national security agencies to acquire information about the conflict zones they are monitoring. Finally, State authorities may be able to establish relationships with other information sharing partners and/or trusted persons who have the ability to observe local events and file reports that may provide indications of a changing situation.

2. How can the credibility of open source intelligence be assessed?

Open Source Intelligence (OSINT) is a monitored process of collection and analysis of published or otherwise publicly available information. Verifying OSINT collected from unclassified sources, such as Google searches, is a time-consuming process that often requires using multiple sources to corroborate the information (e.g., journalist reporting,

commercially available imagery, etc.). If available, national security organizations can be a source of classified, corroborating information; however, the use of classified information is often subject to ‘release-ability’ caveats, which may limit its timely distribution and, as a result, its usefulness.

Theme 2 - Risk Assessment

3. What are some best practices/guidance for conducting airspace risk assessments?

Risk assessments are undertaken in order to determine the existing level of risk. They focus on threat, likelihood, consequence, vulnerability and hazard, which in turn help inform operational decision-making. Assessing risks to civil aviation operations is a continuous process that can be triggered at specific time intervals, or by changes in the operating environment.

The following steps are necessary to maintain a continuous risk assessment cycle:

- Collection of relevant information;
- Subsequent threat analysis;
- Security risk assessment;
- Hazard identification;
- Safety assessment; and,
- Risk determination.

The risk assessment process is cyclical in nature and the outcomes of the first assessment should be re-integrated as pieces of relevant information become available in the next assessment. Each State, aircraft operator, service provider, etc., determines its own risk tolerance, or the level of risk that is acceptable for the specific organization. This is why risk assessment processes based on the same information but conducted by different parties, can produce different outcomes. It is therefore important for the State to define its acceptable operational risk with the aircraft operators and service providers under its oversight authority.

For additional best practices or guidance, refer to the ICAO’s *Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones* (Doc 10084), 2nd Edition, Chapter 4.

4. Should the definition of threat, comprised both of intent and capability, be recalibrated to better reflect the unpredictable nature of conflict zones?

The presence of armed conflict does not necessarily present a threat to civil aviation, as not all actors in conflict zones intend to interfere with passenger flights. However, if those actors have the *capability* to interfere, a risk to civil aviation exists that should be assessed. Separate from intent, the potential for inadvertent risks to civil aviation based on the

capabilities of the actors and the intensity of the conflict should be accounted for in any risk assessment.

To that end, it is essential that States implement the ICAO framework provisions for risk management related to conflict zones (Doc 10084) in order to enhance the safety of civilian flights flying in or near those areas.

With increased mutual cooperation on national, regional and global levels (including State to State, State to service provider, and between different service providers), the international aviation community can improve the mechanisms necessary for ensuring better risk management practices when operating in or near conflict zones. Efficient information sharing practices can also contribute to a States' risk assessment methodology by complementing the intelligence available which may prevent future tragedies.

5. Can OSINT be used in the risk assessment process?

OSINT can be used to enhance awareness and understanding of a specific situation. Provided OSINT follows a well-articulated and legal collection and analytical process, and the material is properly verified or corroborated by classified intelligence, it can inform the risk assessment process. OSINT can also be used to provide unclassified briefings to stakeholders who may require information to support their own risk assessments (e.g., national aircraft operators).

6. Why do risk assessments and mitigation measures differ between States?

States are responsible for conducting their own risk assessments and issuing guidance to their respective national aircraft operators based on the results of that assessment. States have varying levels of risk tolerance, which could result in different recommendations being made. Furthermore, risk assessments may also differ due to both the classified nature of available information, which can only be shared in a limited manner, and the various methodologies used to assess the information.

Within a specific flight information region (FIR), some areas or altitudes may pose fewer risks to civil aviation than others. Flight routes and flight level recommendations should be made after evaluating the nature of the threat, and taken into account in developing a risk assessment. States may permit flight operations on specific airways or at specific flight altitudes that are deemed to pose less of a risk to civil aviation operations. In this regard, some States have legal mechanisms that allow them to prohibit national operators from operating in specific areas, whereas others do not and offer advice to operators instead.

7. Should risk assessment processes and risk management methodologies be globally standardized based on ICAO Standards and Recommended Practices (SARP)?

While States are required to keep under constant review the level and nature of threats to civil aviation in their territory and airspace, and should perform security risk assessments based on ICAO Standards and Recommended Practices, diverse risk assessment methodologies will provide results that better reflect the unique risk tolerance of each sovereign State. It is therefore not recommended to fully standardize those methodologies, since there is no one size fits all approach. That said, if risk assessments conducted by different States provide similar results, they should ideally implement the same, or similar, control measures, and use similar language to communicate the guidance in order to avoid confusion and misunderstanding.

In addition, States should review their general oversight framework to monitor the conduct of genuine risk assessment processes and risk management methodologies by their registered aircraft operators.

Theme 3 - Airspace Notifications

8. Is there a standard process for issuing an airspace notification?

Each State has its own way of issuing airspace notifications that reflect the structure of their Government, as well as the legal constructs available in that State. International tools for issuing notifications include NOTAM, AIC and AIP. What follows below is an example of an airspace notification model from the perspective of the State of the Operator/Registry.

In order to ensure constant monitoring of conflict zones, a centralized team of analysts, usually housed within a federal transportation department, dedicated to gathering information on dangerous airspace should be established. The team should have access to both open-source information and classified intelligence. Collaboration and ongoing communication with partners, both domestic and international, who evaluate conflicts that could impact civil aviation is key. Holding regular meetings with industry to share information and discuss risk profiles, as well as appropriate mitigation measures, is a good practice.

When the analysis team notices a change in an operating environment, which points to a possible conflict zone or the emergence of a new area of concern, it should initiate an airspace risk assessment to determine whether measures may need to be taken to mitigate a specific security risk. Both intent and capability (assumed or demonstrated), are taken into account when performing a threat/risk assessment. As a best practice, the analysis team should, when able, communicate with the country responsible for managing the airspace to confirm whether mitigation measures are in place, such as restricting or closing their airspace, or if they intend to update guidance due to the changing risk environment. If the

analysis team determines that measures are not strong enough, or if there are no measures in place at all, they may be able to suggest risk assessment assistance to the country responsible for managing the airspace. This practice may not always be realistic based on resources or the time sensitivity of the situation. If the mitigation measures employed by the State responsible for the airspace are deemed to be effective, the analysis team should not issue a separate notification to their aircraft operators.

However, if the risk assessment indicates measures are necessary to mitigate risks associated with a conflict zone, a notification should be drafted. The standard ICAO approach for long-term notifications is the AIC or AIP. If temporary or time-critical information pertaining to the safety and security of civilian flight operations is necessary, a NOTAM should be issued. The NOTAM should be rescinded when the risk is no longer relevant, or once the information has been incorporated into the long term mechanism.

Notifications can be informative, advisory, or prohibitive in nature. They can apply to a country's entire airspace, or to a specific FIR. Notifications can also advise which flight altitudes should be used within or near the conflict zone. Once the notification is ready for issuance, national aircraft operators are informed directly to ensure that they are aware of the upcoming guidance, and that they take the recommendations into consideration when planning their flight routes. Notifications are also usually issued publicly through the national government's public-facing website.

If the results of the risk assessment indicate that there is no need to issue a notification, the analysis team should continue to monitor the situation for changes and should issue an information notice, if deemed appropriate. The team may also share the information with aircraft operators, advising them of any risks to ensure they are aware of the evolving risk environment. Open and regular communication with aircraft operators ensures that the State is aware of the routes its national operators fly and can properly assess emerging risks that may impact them. It also enables aircraft operators to undertake stronger risk assessments and make better informed operational decisions.

9. Is there any practical guidance/documentation available to States that are trying to establish a conflict zone risk assessment program?

It is important to note that there is no one size fits all approach to effectively monitoring and mitigating the risks conflict zones pose to civil aviation operations. As a starting point, States should create an inventory of their national Ministries,¹ aircraft operators and air navigation service providers involved in civil aviation operations, and ask these service providers if they need additional threat information or risk management capabilities in order to perform their civil aviation risk assessments for overflying domestic and/or foreign conflict zones. States and service providers can contact risk mitigation experts from the SSCC

¹ Typically the Ministries of Defense, Home Affairs, Foreign Affairs, Justice, and Transport would be included in this inventory.

and/or the Expert Group on Risk Information Overflying Conflict Zones (EGRICZ) at any time for assistance or guidance in the establishment of conflict zone risk assessment programs. The SSCC is available by email at saferskies@iata.org.

For additional best practices or guidance on the roles and parties concerned, refer to the ICAO's *Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones* (Doc 10084), 2nd Edition, chapter 3.

10. Is the establishment of State-based integrated conflict zone offices the ideal solution to mitigate conflict zone risk, or are there other options?

There is no one size fits all approach. The spectrum of a State's involvement in the risk assessment and decision-making process to determine acceptable risk level may vary from no involvement to the publication of regulations limiting or prohibiting certain operations. Furthermore, there are differences in how relevant information in support of risk assessments, and possible regulations, are transmitted by States. The extent of information and methods of dissemination largely depend on a State's own capability to gather and process appropriate information as well as its legal powers and duties regarding the issuance of prohibitive and limiting regulations. This may include additional relevant regional systems or initiatives. As such, depending on a State's chosen posture and legal framework regarding State responsibility vs aircraft operator responsibility, the State, in collaboration with its national stakeholders, will determine the optimal mechanisms to be implemented to establish its own approach.

For additional best practices or guidance, refer to the ICAO's *Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones* (Doc 10084), 2nd Edition, Appendix C.

Theme 4 - Information Sharing

11. What are some best practices for communicating risk information to other stakeholders?

In addition to the issuance of official notifications such as NOTAM, AIC and AIP, information should be shared regularly/continuously with other stakeholders, including States and Industry. The means of communication may depend on the sensitivity level of the information being shared.

Information related to time sensitive situations can be shared by email with the industry and the Safer Skies community, or through regular or ad hoc meetings.

Information is also published through various portals, such as the European Union Aviation Safety Agency (EASA) webpage in the form of conflict zone information bulletins, or the informal EGRICZ framework.

High level information and best practices can also be shared through ad hoc meetings and workshops, as well as at the annual Safer Skies Forum.

12. What are some hurdles that make it difficult for States to share classified materials with Industry? Can these be overcome?

Intelligence regarding conflict zones and the risks they pose to civil aviation is usually of a classified nature and therefore cannot generally be shared with Industry. To overcome this hurdle, the use of open-source information, including through commercial arrangements with providers, is often enough to inform situational awareness and provide updates on developing situations.

If States need to share classified materials, they could explore the possibility of granting a security clearance to a qualifying representative from a national registered aircraft operator, thus allowing the State to share more information with Industry. Often, this will require the aircraft operator to have access to a secure telephone line/email server, as well as a classified information repository. Of course, aircraft operators do not necessarily need specific classified intelligence to conduct a risk assessment. Sufficient information can be obtained without including sensitive data. As an example, aircraft operators usually do not need confidential information on the exact model of weapons or missiles available in a conflict zone, but can benefit from information on what damage could be caused to an aircraft, its passengers and crew, and how best to avoid a certain risk.

13. Are there industry platforms that provide open source conflict zone information to stakeholders?

The International Air Transportation Association (IATA) is piloting a new program called AVSEC Insight, a system that assesses and categorizes open source information relevant to the safe continuity and resilience of civil aviation, such as Conflict, Crime, Disaster, Health, Terrorism, Transportation, and Travel and Unrest, which can serve as a baseline for security risk assessments. This system can support States and aircraft operators sifting through enormous amounts of open source data to identify information relevant to their needs. IATA is in the process of carrying out a feasibility assessment for phase 2 in 2021.

In early 2021, the EASA unveiled its new platform, the [European Information Sharing and Cooperation Platform on Conflict Zones](#), a membership based platform for European Union member States and the United Kingdom.

3. Conclusion

Building on the work initiated at the first Safer Skies Forum, the SSCC produced this Q&A to provide States and other civil aviation stakeholders with basic information on best practices to manage the risks conflict zones pose to global civil aviation operations.

As it continues to mature, the SSCC will produce more information papers on various topics as part of its effort to promote best practices regarding risk assessments and mitigation strategies, and to enable information-sharing and a broader dialogue between all key global civil aviation parties.

The annual Safer Skies Forum will also greatly contribute to this dialogue between a wide diversity of stakeholders, united around the goal to make our skies safer.

To ensure the usefulness and continuous improvement of its products, including this Q&A, the SSCC welcomes your constructive feedback. Any comments can be submitted via the saferskies@iata.org email address.