

The Importance of Airspace Threat Information Sharing - *A commentary on the report by the European High Level Task Force on Conflict Zones*

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European High Level Task Force on Conflict Zones

On the 17 March 2016, the European High Level Task Force on Conflict Zones delivered its completed [report](#) to the European Commissioner for Transport. The report represents an important step forward in awareness and cooperation by improving the access to threat information to stakeholders across the aviation industry and makes several recommendations to European Union (EU) member states, European Aviation Safety Agency (EASA), state intelligence agencies, the European Commission, and aviation operators. These recommendations included the following:

1. EU member states establishing national systems to address risks to civil aviation from conflict zones and sharing this collated information in order to enable the development of common EU risk assessments and the timely sharing of this information;
2. EASA establishing a process to publish information and recommendations based on common EU risk assessments;
3. EU member state intelligence agencies supporting information collection regarding conflict zone risks;
4. European Commission facilitating the sharing of risk information and developing of common EU risk assessments; and
5. Operators applying the information and recommendations available on conflict zones to their own risk assessment and/or decision making processes.

While this milestone is one of a few critical steps taken by aviation industry stakeholders to address the information gap surrounding risks to civil aviation from armed conflict zones since the shoot down of MH17 over Eastern Ukraine in July 2014, there remains many more steps to come before an effective mechanism is implemented through which operators can receive or access all necessary information and recommendations required to make decisions to keep their passengers, crew and aircraft safe.

Getting Here: International, National, and Organizational Support for Airspace Threat Information

Air navigation route security is a key and growing area of concern for civil aviation entities around the globe, as exemplified during the [July 2014](#) International Civil Aviation Organization (ICAO) conference in Montreal, Canada, which was attended by official representatives of the International Air Transport Association (IATA), Airports Council International (ACI) and the Civil Air Navigation Services Organisation (CANSO) and focused on risks to civilian aviation arising from conflict zones. Between this meeting and release of the Task Force report, additional awareness has been raised and incremental steps taken, most notably by the United States (US) Federal Aviation Administration (FAA) with new notice to airmen (NOTAM) formats for [conflict zones and international crisis situations](#) in [October 2014 and the ICAO with](#) the launch an online Conflict Zone Information Repository ([CZIR](#)) in [April 2015](#). Importantly, this awareness and cooperation will continue this [April](#) at IATA's Operations Conference themed 'Managing Operations in a Changing World,' which will address emerging operational issues, to include overflight of conflict zones.

Concerns with Existing Methods and Delivery Mechanisms

While these efforts demonstrate a heightened awareness of the necessity to improve access to threat information among aviation industry stakeholders at all levels there is still much to be done to foster effective and standardized mechanisms to identify, assess, recommend and share overflight threat intelligence with aviation operators globally or even regionally. To successfully address this gap, a number of issues must be resolved along with a fundamental shift in the way the current decentralized structure operates in regards to how overflight intelligence is currently identified, assessed, recommended and shared.

- Currently, most reporting on aviation threats is reactionary, resulting from an incident involving the targeting of an aircraft. There is the need to develop the capability to be forward-looking in reporting emerging threats to aviation, rather than after an event, either in-flight or on the ground. This will allow risk assessments and route planning to be informed by the right information and minimise the number of aircraft that are subjected to threats. It will also go a long way to eliminating any delay between an incident occurring and a bulletin or notice being published., ensuring that the right information is available in a timely manner and minimising the chance of reoccurrence.
- A mechanism must be developed that is unbiased or influenced by political and diplomatic limitations that affect current reporting, which can undermine the timeliness and objectivity of the information available to operators. In evidence is a situation where multiple aircraft were targeted in flight and various airports and air bases attacked, including a complex attack on a major international airport. The earliest safety bulletin published by a governmental authority was three months after these events and they were not identified or reported in sufficient detail until more than a year later. As all these incidents were widely reported in the media and caused a number of fatalities, including in-flight, the delays in issuing prohibitions, restrictions, and/or notices were more than likely political in nature.
- Operators need recommendations and actionable information on the exact threats to aviation that are being reported. It is these recommendations that enable carriers to understand and minimize the impact of these threats on their operations. It is also essential that any changes in the security environment, threat, or recommended mitigation measures are reported as widely and comprehensively as the original identification of the issue.
- The task force report explains the challenges faced by ICAO with respect to the Conflict Zone Information Repository. The CZIR is a commendable initiative that is hampered by the inherent limitations of the political landscape and an individual state's assessment and reporting capability and capacity. Only authorized personnel from member states working in isolation can post overflight threat information to the repository, and the state referenced in the submission has 72 hours to review and approve the public post. While necessary in this forum, these requirements nonetheless impact the objectivity and timeliness of the information available to operators. ICAO has made great strides in developing a concept to ensure information is publicly available in a single online source, but it requires member states to be proactive in submitting areas of concern and is beholden to the amount and standard of reporting and analysis, which is based on nationally built risk assessments. It also struggles from the limited number of countries that post to the repository and airspace threat information despite the presence of real airspace threats.
- Lastly, the task force report focuses on areas of conflict or active insurgencies, but it must be highlighted that overflight threats exist in many regions globally that may not fall neatly into either of these categories. There are issues in relation to state actors that are addressed in a limited fashion, for

example the recent North Korea and Iran missile launches, and additional areas where arms proliferation and non-state actor activity exists. It is also important to recognise the threat in South America as demonstrated by the number of shoot downs of illicit civilian aircraft over the recent past coupled with the changes in aircraft shoot down policies of countries such as Venezuela, Argentina and Peru, the legality of some of which have been questioned under international law.

While these aforementioned issues both individually and taken as whole create a host of concerns, one of the principal issues is an inconsistency in risk assessment and a lack of common criteria and definitions, the existence of which would enable an objective comparison across different airspace. Aviation industry stakeholders hold different criteria and methodology for identifying and assessing overflight risk, much of which is not public knowledge. This means that two operators assessing of risk of the same aircraft flying over the same airspace often come up with significantly different risk profiles. Not only is this concerning for operators, as their businesses and reputations are on the line, but it undermines the value of the sharing of information as the interpretation of that information can be dramatically different.

Looking at the above, it is clear, and critical that the methodology behind risk assessments and reporting, and the requirements for operators in this regard for compliance, set and enforced by national civil aviation authorities, be (1) proactive, (2) expedient, (3) apolitical, (4) specific, (5) inclusive, (6) comprehensive and (7) consistent in identifying, assessing, recommending and sharing global airspace threat information.

So how does the aviation industry critically solve these problems and reach a point where operators have immediate access to the most up to date and accurate threat information for any airspace? In order to achieve this, the aviation industry as a whole will have to accept its role, and not fully divest that responsibility to states, to look at integrated and innovative solutions to the gathering and sharing of accurate information.

CASE STUDY: Piracy off the Horn of Africa & the Maritime Industry

The maritime industry struggled with a similar issue with piracy off the Horn of Africa. Throughout 2008 and 2009, the number of attacks by pirates off the Horn of Africa rose exponentially. Despite the deployment of the EU Naval Force in late 2008, these continued to grow to a peak in 2011, when 736 hostages and 32 ships were held by pirates. In this scenario, the lack of threat intelligence to which EU naval forces had access, coupled with the fact that just a handful of ships were responsible for patrolling millions of square miles of sea, fostered an environment where identifying and tracking pirates was virtually impossible. Frustrated by the apparent lack of success from government intervention, the shipping industry turned to private security providers for a solution. During 2010 and 2011, the number of vessels carrying privately contracted vessel protection teams rose to an estimated 80% of all traffic. The presence of hundreds of private security teams reporting on threats into a single authority, creating a surveillance network that covered the whole of the region, enabled EU military forces to identify, track and interdict these pirates. As a result of this coordination effort, pirate attacks dropped to almost zero over the following two years, and by the end of 2014, there were only 30 seafarers still captive and no ships. Overall, this example highlights how successful, effective mechanisms achieved significant results through integrated use of available assets and sources of information regionally. But how should the aviation industry achieve similar success with global airspace risks?

Needed: Development of an International Risk Assessment Methodology for Airspace Risk

Gathering airspace threat information from all available sources, ensuring it is complete and accurate, assessing it in a balanced and consistent manner that all parties can understand and disseminating through a system that

gives unlimited access in the shortest possible time is a complex and challenging task. As an industry, we must ensure we are ultimately looking at innovative ways to achieve this goal in ensuring our crew, passengers and aircraft are safe. The Task Force report even notes that whilst states have the primary responsibility for issuing information, prohibitions and restrictions, states will fail to meet these obligations and therefore “it is essential that alternative mechanisms are available to [the] aviation community.” Simply putting the onus completely on civil aviation authorities, or even authorities and industry bodies, is not a comprehensive or long-term solution.

While only part of the picture, the Task Force report rightly calls for the development of a consistent methodology for assessing risk in overflight of conflict zones. What is needed is a holistic international risk assessment methodology and reporting mechanism for airspace risk, not just of conflict zones, that is (1) proactive, (2) expedient, (3) apolitical, (4) specific, (5) inclusive, (6) comprehensive and (7) consistent for use by aviation industry stakeholders and enforcement by aviation authorities, in order to present a commonly understood and standardized risk picture. MedAire has developed an objective and consistent methodology for quantifying and assessing overflight risk in all airspace globally. Examining the actual threat from anti-air weaponry against a large number of criteria including availability, portability and documented use, these threats are then validated against a proprietary and comprehensive database of all aviation security incidents over the last 20 years, identifying trends and patterns that allow the most comprehensive understanding and assessment in the industry.

These assessments include reference to and analysis of extant restrictions and prohibitions issued by appropriate authorities but provide a balanced view from all available sources. This ensures that the assessment is not biased in any way and divorced from political or diplomatic influences. Critically, this methodology is consistent; irrespective of geography or security environment, these assessments provide a standardised and quantified output that enables operators to understand the relative risk of all their operations, anywhere in the world, and not just over conflict zones.

Concluding Thoughts

In the year and a half since the shoot down of MH17, awareness has been raised and incremental steps taken at varying levels of authority in the spirit of awareness and cooperation to improve the access to threat information to stakeholders across the aviation industry. Nevertheless, it is more than apparent that this will take even more time before an effective mechanism is implemented through which operators can receive or access all information and recommendations required to make decisions that will keep their passengers, crew and aircraft safe. Above all else, the responsibility is on the operator to comply with their respective civil aviation authority and to ensure the safety and security of flight routes. As noted by the Task Force, operators are encouraged to autonomously conduct risk assessments in the area of conflict zone overflight. In this regard, MedAire is the industry leader in airspace risk assessment and has forged a holistic approach to supporting operators with accurate and timely intelligence and analysis on kinetic threats to aviation

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Andrew Nicholson is the Global Security Director for MedAire. In this role he is responsible for the delivery of all security services to MedAire clients across the business lines of Commercial, Business and General Aviation and has driven the development of MedAire's market leading aviation security support services. Prior to this role Andrew was a former Royal Navy and Special Forces Officer. After leaving the forces, Andrew ran support to the maritime and oil and gas industry for a market leading risk management company. Whilst serving, he saw operational tours in Sierra Leone, Northern Ireland, Afghanistan, Iraq and Kosovo. Andrew has been heavily involved in regulation in the private security industry, was a member of the Executive Committee of the Security in Complex Environments Group and is a member of the Board of Directors for the Association of the International Code of Conduct for Private Security Providers. He is a regular speaker at aviation events such as AVSEC and Passenger Terminal Expo.