I. INTRODUCTION

Controlling the means of transport or transfer of targeted commodities constitutes an essential element within any non-proliferation, counter-narcotics, strategic trade control or counter-terrorism strategy. Recognition of the fact that transnational transport vessels not only play a pivotal role within the illicit supply chain but also represent a tangible and therefore vulnerable element within it has prompted a range of measures targeting the freedom of movement of aircraft and maritime vessels, and increasing their liability when carrying unauthorized or prohibited cargo. Commercial companies are made further amenable to interdiction pressure by virtue of the fact that they are profit-driven and are oftentimes unaware of their role in proliferation.

Air transport has been specifically identified as a primary means of transfer of conventional weaponry to locations subject to United Nations, European Union (EU) or Organization for Security and Co-operation in Europe (OSCE) arms embargoes. Air transport further poses a major threat as a means of delivery of components related to weapons of mass destruction (WMD) and chemical, biological, radiological, nuclear and explosive (CBRNE) agents, and the illicit drugs and other commodities that act as revenue-generating assets in conflict economies.

While often indispensable to civilian and humanitarian affairs, aircraft can facilitate the transfer of high-value or time-sensitive commodities to otherwise inaccessible areas. They have been used in a variety of settings to deliver critical military equipment to isolated or rebel-held areas during periods of high-intensity conflict, and in regions where authorities or competing groups have the potential to block shipments being transported via land or sea, such as in eastern Democratic Republic of the Congo (DRC) or Darfur, Sudan. Aircraft may also be used for the transfer of conflict-sensitive goods such as precious raw materials, and can be used to generate revenue for non-state groups via the informal taxation of imported goods or the delivery of exported goods to markets. Further, they have been used by smugglers involved in the trade in illicit drugs and precursor chemicals from Latin America to West Africa and North America. The serious threat posed by the airborne delivery of WMD components and CBRNE is also reflected in a wide range of international counter-terrorism and transport security conventions.

Efforts to prevent the use of aircraft to this end rely on a range of regulatory and enforcement measures with varying degrees of verifiable success. One policy option used by state authorities that has proven to be effective as an enforcement mechanism is the control of access to national airspace. This has involved efforts aimed at regulating the transit of munitions of war within their territory, the outright refusal of overflight rights to certain aircraft, or the allowing of such rights on the condition that the aircraft first submit to an inspection.

Regulating airspace offers a practical policy option to national and international authorities seeking to enforce embargoes more effectively, prevent specific shipments or enforce national policy. At the same time, it also presents further opportunities that can be explored. While the ability of a state to limit access to its airspace in such a way is relatively unproblematic, it is nevertheless limited by legal, practical, diplomatic and commercial factors. Further, several contemporary cases demonstrate that such efforts appear dependent on political will and policy priorities rather than a systematic implementation of legal embargo enforcement instruments. For states and international organizations charged with embargo enforcement, the main factors limiting the expansion of this enforcement relate to the effective exchange of information, technical resources and awareness.

In this regard, the EU and its member states are particularly well placed to fully utilize overflight denial and control mechanisms. In particular, the ongoing development of the Single European Sky (SES) initiative provides an opportunity to facilitate the exchange of information required for its expanded use in other areas of EU export control policy. This paper examines this as-yet underexplored area of embargo enforcement. While recognizing the relevance of the interdiction of aircraft for general counter-trafficking, counter-terrorism and non-proliferation strategies, it concentrates on the transfer of conventional weaponry, and on such transfers that are in violation of arms embargoes.

Section II provides a basic introduction to regulations and procedures governing aircraft transit before outlining the current legal and regulatory framework related to overflight permission denial and aircraft inspection. Section III discusses UN and multilateral arms embargoes as well as non-proliferation initiatives and the provisions contained within them that are of relevance to the denial of overflight permissions to aircraft. Section IV highlights specific examples of states exercising overflight controls to either deny aircraft access to their airspace or interdict transfers of prohibited material. Section V outlines the key issues that states and international bodies should consider in expanding the use of airspace control for embargo enforcement and counter-proliferation. Section VI examines the use of overflight rights by EU member states and argues that the SES initiative could facilitate the wider use of such a mechanism. Section VII offers policy recommendations for state authorities, the EU and other intergovernmental agencies and presents conclusions on the future of effective embargo enforcement.

II. FLIGHT CONTROL REGIMES

Due to the high level of mutual interest that state parties have in standardizing aviation safety

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procedures, international airspace is heavily regulated and split into classes defined by the International Civil Aviation Organization (ICAO), a specialized UN agency. The amount of autonomy an aircraft can exercise in navigation independent of air traffic control (ATC) is dependent on which class of airspace it is flying in and whether it is using visual aids (known as flying under visual flight rules, VFR) or is using electronic signals and navigation techniques (known as flying under instrument flight rules, IFR). The ability to fly using VFR depends on meteorological conditions as well as the class of airspace the aircraft is flying in. In Europe's heavily congested airspace, large transnational carriers generally fly under IFR, which impose more stringent reporting obligations, including the requirement to submit flight plans to the centralized Integrated Initial Flight Plan Processing System (IFPS). The IFPS then coordinates the flight planning with all concerned Air Traffic Service Units (ATSUs).4

Geographically defined flight information regions (FIRs) provide air navigation services in controlled airspace and are responsible for coordination with ATCs and carriers to ensure safe navigation. FIRs can exercise control within a state or within a regional grouping of states.

Commercial aircraft transiting through controlled airspace need to do so along specific airways and waypoints while maintaining contact with ATCs for routeing and navigation. Overflights through international airspace are coordinated by national ATCs, which are able to charge a fee for their services.

Prior authorization by overflown states is required for transnational flights, and flight plans must be submitted in advance to ATC authorities. The permission to overfly is initially provided by authorities within one or more government departments—typically, the transport or foreign affairs ministry or civil aviation authority—and flight plans are then filed for coordination with ATCs. These flight plans contain vital information about the anticipated route of the aircraft as well as information regarding the aircraft's instruments, the carrier and the nature of the cargo on board.

**Obtaining permission**

Commercial overflight permissions involve political, economic and technical considerations and can involve government and industry bodies as well as individual airlines. Overflight permission is a politicized issue at higher levels of decision making and a technical one at the operational level. Operating permission for commercial airlines is regulated by a multitude of multilateral and bilateral agreements. For safety and navigation reasons, aircraft operators submit flight plans for specific flights or groups of flights, while overflight and ATC usage fees also mean that prior notification is necessary for administrative purposes.

Scheduled (i.e. non-chartered) flights often receive blanket authorization for overflights, but individual flights still need to be coordinated with ATC services. In contrast, non-scheduled (i.e. chartered) services must go through an authorization process that is more heavily dependent on individual state policy. States have different procedures concerning which government agency an authorization request should be made to, as well as how far in advance such a request must be made. Disparate procedures relating to overflight authorization have seen the proliferation of specialized third-party air operation management agencies that secure overflight permissions at the request of operators.

Flight permissions for state and military aircraft are generally dealt with at the diplomatic level. Permissions for military overflights are made within a highly politicized context, reflecting both bilateral relations and state acquiesce to specific military operations. Supply lines to the International Security Assistance Force (ISAF) in Afghanistan, for example, have proved a highly politicized and contentious issue throughout the conflict, despite a UN Security Council resolution encouraging ‘neighbouring States and other Member States to provide to the International Security Assistance Force such necessary assistance as may be requested, including the provision of overflight clearances and transit’.5

States neighbouring Afghanistan, including Iran and Pakistan as well as Central Asian states, have been crucial to securing supply lines and have as a result warranted significant diplomatic attention. Most Central Asian states at this stage of operations allow the reverse transit of supplies and equipment out of

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The Northern Distribution Network, created in preparation for the 2009 ISAF ‘surge’ and as a result of instability in the usually more efficient supply routes running through Pakistan, involved negotiations at the executive level of government that resulted in Kazakhstan expanding its original 2001 overflight agreement. Under the terms of the Afghanistan Air Transit Agreement signed in 2009, Russia also agreed to the use of its airspace, allowing up to 4500 ISAF military flights annually as well as unlimited commercial cargo flights.

Technological permission for individual flights or a series of flights is initially sought through diplomatic channels—via embassies and military attaches—before flight plans are submitted for ATC consideration. Permission for the transit of non-military state aircraft through diplomatic channels uses the same procedure, although refusals to grant overflight permission have resulted in major diplomatic incidents. In 2011, for example, a German state aircraft carrying Chancellor Angela Merkel to India was temporarily denied permission to overfly Iranian airspace, as a result of which the Iranian ambassador was called to the German Foreign Office.

### Denying permission: the legal basis

While maritime law has traditionally sought to guarantee states and vessels the freedom of the seas and presumed a right of innocent passage, aviation law does not guarantee such a right. States have the ultimate legal right to regulate and control their airspace as they see fit. The 1944 Chicago Convention governing commercial aviation stipulates that ‘contracting States recognize that every State has complete and exclusive sovereignty over the airspace above its territory’. Article 6 of the Convention states that scheduled services must seek prior permission before overflight, while Article 5 stipulates that non-scheduled aircraft are liable to inspection as a prerequisite for permission. Article 3 bis, an amendment signed at Montreal in 1984, clarifies that:

The contracting States recognize that every State, in the exercise of its sovereignty, is entitled to require the landing at some designated airport of a civil aircraft flying above its territory without authority or if there are reasonable grounds to conclude that it is being used for any purpose inconsistent with the aims of this Convention.

Furthermore, states are able to deny overflight permission to any aircraft carrying munitions of war:

No munitions of war or implements of war may be carried in or above the territory of a State in aircraft engaged in international navigation, except by permission of such State. Each State shall determine by regulations what constitutes munitions of war or implements of war for the purposes of this Article.

Deciding what constitutes munitions of war remains at the discretion of signatory states, meaning that they are free to decide what categories of weaponry they wish to regulate in their airspace.

The carriage of dangerous goods is addressed under Annex 18 to the Convention, which aims to establish broad principles while also providing technical instructions for such carriage. Crucially, many small arms and light weapons (SALW) or related munitions of war (e.g. assault rifles without ammunition) are not classified as dangerous goods and so are not subject to inspection and enforcement criteria aimed at harmonization and specified by the instructions.

In addition to the Chicago Convention, 129 states are also signatories to the 1944 International Air Services Transit Agreement (IASTA), which seeks to liberalize

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11 Convention on International Civil Aviation (note 10), Article 3 bis.

12 Convention on International Civil Aviation (note 10), Article 35(a).
transit rights and establish the ‘freedoms of the air’.\footnote{International Air Services Transit Agreement, opened for signature and entered into force 7 Dec. 1944, \url{<http://legacy.icao.int/icao/en/leb/transit.pdf>}.} Generally speaking, these freedoms seek to establish and guarantee the right of transit between signatories, the abolition of overflight charges and the right to overfly signatories’ airspace without landing.

Section 6, however, does allow signatories to apply powers derived from the Chicago Convention in spite of the agreement:

Each contracting State reserves the right to withhold or revoke a certificate or permit to an air transport enterprise of another State in any case where it is not satisfied that substantial ownership and effective control are vested in nationals of a contracting State, or in case of failure of such air transport enterprise to comply with the laws of the State over which it operates, or to perform its obligations under this Agreement.\footnote{International Air Services Transit Agreement (note 13), section 6.}

In addition to these multilateral agreements, overflight permissions can also be decided on a bilateral basis. For example, Russia is not a signatory to the IASTA and has in the past charged European airlines on a bilateral level for use of the trans-Siberian route into Asia. The European Commission has been involved in negotiating these overflight charges on behalf of EU member states, and has secured a non-discriminatory deal for European airlines that is due to take effect in 2014.\footnote{European Commission, ‘Air transport: Commission welcomes agreement on Siberian overflights’, Press release, IP/11/1490, 1 Dec. 2011, \url{<http://europa.eu/rapid/press-release_IP-11-1490_en.htm>}.} Prior to this agreement, however, several EU member states reached bilateral agreements with Russia that included a negotiated rate for their own national airlines.\footnote{The European Commission indeed sought possible anti-trust measures against these member states. See European Commission, ‘Air transport: Commission launches infringement procedures against six Member States over agreements with Russia on equal treatment of EU airlines and Siberian overflights’, Press release, IP/11/386, 16 Feb. 2011, \url{<http://europa.eu/rapid/press-release_IP-11-186 ga.htm>}.}

Denying permission outright is therefore legally unproblematic. Powers derived from the Chicago Convention grant states exclusive jurisdiction and sovereignty over their airspace. However, denying permission in view of various bilateral and multilateral transit agreements is somewhat more controversial.

Clearly, premises exist within both the Chicago Convention and the IASTA for the inspection of commercial aircraft within a state’s airspace or for outright denial of its right to overfly if, for whatever reasons, state authorities believe the aircraft is in violation of national laws. Further, the carriage of munitions of war—the constitution of which states are able to determine—over a state’s airspace without explicit and informed consent is prohibited.\footnote{Convention on International Civil Aviation (note 10).}

However, the political repercussions of denying an aircraft overflight, or inspecting the aircraft, act as a complicating factor. Aircraft in international airspace fall under the exclusive jurisdiction of the state in which they are registered, and interference with them even when they are in foreign jurisdictions can often lead to serious diplomatic issues. Flag carriers, in particular, often function as a symbol of state prestige, which has the potential to make any perceived interference extremely contentious.

III. PROLIFERATION CONTROL REGIMES

A range of multilateral initiatives and arms embargoes have direct implications for the inspection and denial of overflight permissions to aircraft. These have been driven by the desire either to ensure wider participation in inspection and interdiction activities amongst states or to codify standard practice for doing so among states.

Arms embargoes

Since the end of the cold war, multilateral arms embargoes have emerged as one preferred type of international sanction.\footnote{Fruchart, D. et al., \textit{United Nations Arms Embargoes: Their Impact on Arms Flows and Target Behaviour} (SIPRI and Uppsala University: Stockholm/Uppsala, 2007).} Arms embargoes may be deployed individually in order to mitigate a conflict by stemming the destabilizing transfer of military equipment but can also form part of a broader package of sanctions targeting specific state behaviour.

\textit{United Nations arms embargoes}

UN arms embargoes remain the only globally binding instruments prohibiting the transfer of military items to a region, state or non-state group. This makes embargo provisions enacted under Chapter VII of the UN Charter of crucial importance to enforcement...
methods, given the transnational nature of the global supply chain. States are not only expected to implement embargo provisions but also to periodically report on their implementation as well as any violations.

The control of aircraft and aviation has always been absolutely fundamental to arms embargoes. The first mandatory UN arms embargo in 1966 recognized the importance of targeting air assets and aircraft registered to states in curtailing prohibited exports from Rhodesia. The UN sanctions applied to Iraq during the 1991 First Gulf War specified that member states were to prevent violation of the sanctions ‘by their nationals or from their territories or using their flag vessels or aircraft’.

UN sanctions applied to the Federal Republic of Yugoslavia in 1992, which included an impartial arms embargo, specified ‘that states shall: Deny permission to any aircraft to take off from, land in or overfly their territory if it is destined to land in or has taken off from the territory of the Federal Republic of Yugoslavia’, and even went as far as mandating that states confiscate any aircraft present on their territory and that had been registered in the Federal Republic of Yugoslavia at any point during the previous four years.

Early in the same year the UN Security Council had decided that all states should ‘deny permission to any aircraft to take off from, land in or overfly their territory if it is destined to land in or has taken off from the territory of Libya’.

In the early 1990s such overtly stringent embargo provisions were seen as necessary to enforce the stringent trade embargoes in place at the time. However, as a result of the unintended consequences of such broad-brush sanctions, and with the beginning of the smart sanctions process, sanctions became more targeted in nature. More detailed reporting in the 1990s and 2000s by UN expert monitoring groups addressing specific violations in a range of conflicts subject to UN embargoes also gave practitioners a better understanding of general circumvention techniques. These simultaneous developments led to gradually more targeted and practical enforcement mechanisms within the design of UN embargoes themselves. UN Security Council Resolution 1929 on Iran, for example, called on states to inspect, in accordance with their national authorities and legislation and consistent with international law, in particular the law of the sea and relevant international civil aviation agreements, all cargo to and from Iran, in their territory, including seaports and airports, if the State concerned has information that provides reasonable grounds to believe the cargo contains items the supply, sale, transfer, or export of which is prohibited.

Similar paragraphs have appeared in recent UN Security Council resolutions containing military or proliferation-related trade restrictions, including those related to the Democratic People’s Republic of Korea (DPRK, North Korea) in 2009 and Libya in 2011. Such targeted enforcement mechanisms have had a two-fold effect: first, they have provided states with the legal authority to inspect transportation agents in places where they would not normally practice jurisdiction; and second, they have allowed states with specific intelligence on a potentially illicit transfer of goods under embargo to pressure other states to take action to inspect and intercept shipments.

Theoretically, depending on the provisions of a specific resolution, allowing overflight permission to an aircraft that is known to be transporting military goods under embargo would be a violation of the resolution by the authorizing state. In practice, however, state authorities often do not know whether an aircraft is actually carrying such goods.

In some cases, a state will not require an air operator to declare whether they are carrying munitions of war on a case-by-case basis. However, if an aircraft is found to be carrying munitions of war, and is transiting to a region under an arms embargo, this would technically constitute a breach of embargo provisions by the authorizing state. Recent UN embargo provisions still lack clarity as to whether ‘territory’ encompasses airspace, while the use of the term ‘reasonable grounds to believe’ (as in Resolution 1929 above) is ambiguous and left to the interpretation of member states.

European Union arms embargoes
In contrast to the plurality of opinions and interests influencing UN arms embargoes, embargoes enacted

by the EU are generally more comprehensive in their coverage. This not only means that there are more of them, but also that they are often more specific and broader in scope when it comes to enforcement provisions.\footnote{E.g. during 2011, 13 UN arms embargoes and 19 EU arms embargoes were in force. Of the EU’s 19 embargoes, 9 implemented UN decisions directly, 3 implemented UN embargoes with modified scope or coverage, and 7 had no UN counterpart. Wezeman, P. D. and Kelly, N., ‘Multilateral arms embargoes’, SIPRI Yearbook 2012: Armaments, Disarmament and International Security (Oxford University Press: Oxford, 2012), p. 431.} EU sanctions or restrictive measures are enacted within the framework of the Common Foreign and Security Policy (CFSP) and fall under the authority of the European External Action Service (EEAS). Implementation and enforcement is carried out by member states, although the European Commission can penalize member states for failing to ratify measures in national laws, while the Working Party of Foreign Relations Counsellors (RELEX) has a mandate to review and monitor implementation.\footnote{European External Action Service, ‘Sanctions and restrictive measures’, [n.d.], <http://eeas.europa.eu/cfsp/sanctions/index_en.htm>.}

There appears to be no policy at the EU level on whether or not member states are obliged to inspect or deny aircraft permission to enter their airspace in respect of restrictive measures. Article 2 of the 2011 Council Regulation on Syria, for example, states that it is prohibited ‘to sell, supply, transfer or export, directly or indirectly, equipment which might be used for internal repression . . . whether or not originating in the Union, to any person, entity or body in Syria or for use in Syria’.\footnote{Council Regulation (EU) No 442/2011 of 9 May 2011, Official Journal of the European Union, L121, 10 May 2011, p. 1.} The same decision also made it clear that the regulation shall apply both ‘within the territory of the Union, including its airspace’ and ‘on board any aircraft or any vessel under the jurisdiction of a Member State’. Article 1(f) also noted that ‘territory of the Union means territories of the Member States to which the Treaty is applicable, under the conditions laid down in the Treaty, including their airspace’.\footnote{Council Regulation (EU) No 442/2011 (note 27), Articles 17 (a) and (b).}

Much like UN arms embargoes, the EU’s restrictive measures against Syria make reference to ‘reasonable grounds to believe’:

> If Member States have information that provides reasonable grounds to believe that the cargo of vessels and aircraft bound for Syria contains items whose supply, sale, transfer or export is prohibited . . . they shall inspect, in accordance with their national legislation and consistent with international law, in particular the law of the sea and relevant international civil aviation agreements and maritime transport agreements, such vessels and aircraft in their seaports and airports, as well as in their territorial sea, in accordance with decisions and capabilities of their competent authorities and with the consent, as necessary in accordance with international law for the territorial sea, of the flag State.\footnote{Council Decision 2012/420/CFSP of 23 July 2012 amending Decision 2011/762/CFSP, Official Journal of the European Union, L196, 24 July 2012, p. 59.}

While such provisions in theory allow for the inspection of aircraft on the basis of a reasonable amount of information, operational difficulties associated with the lack of concrete information concerning aircraft that may be acting in violation of restrictive measures means that there is no explicit EU policy in this regard.\footnote{European Union official, Communication with author, 14 Nov. 2012.}

Like similar UN measures, the reference to ‘reasonable grounds to believe’ means that if a state has access to information suggesting that an aircraft may be in violation of an embargo, it has a legal basis for asking another EU member state to inspect the aircraft.

Formal information-sharing mechanisms at the EU level include working groups such as RELEX and the EU Council Working Group on Conventional Arms Exports (COARM) as well as a blacklist of high-risk airline carriers updated and distributed by the Joint European Union Situation Centre (SITCEN). However, these mechanisms are characterized by several limitations. For example, the SITCEN blacklist, although not publicly available, is usually issued to intelligence and foreign ministry officials rather than aviation officials directly involved with oversight permissions.\footnote{Bromley, M. et al., ‘The control of air transportation of small arms and light weapons and munitions: a comparative study of national systems utilised in the European Union’, EPMES 2008/012, French Ministry of Defence, May 2009, <http://www.esdmap.org/pdf/2009_artrel_296_.epmes-%202008-012-final-report-en.pdf>.} Several incidents—the most recent of which involved a vessel carrying embarged military equipment from Russia to Syria that was stopped in Cyprus but subsequently allowed to continue to Syria—have also highlighted limitations
in existing information-sharing and EU enforcement capabilities.\textsuperscript{32} 

**The Proliferation Security Initiative**

The US State Department formally announced the Proliferation Security Initiative (PSI) in 2003 as a means to prevent the transit of WMDs, their delivery systems and related material. The initiative was a response to the apparent lack of legal basis available to interdict the So San, a North Korean freighter en route to Yemen with a cargo of Scud missiles. The incident highlighted the primacy of the flag state on the high seas and the problematic nature of interdicting vessels in international waters. The PSI is a loose framework agreement through which maritime vessels and aircraft can be legally interdicted by ensuring the cooperation of the flag state. It has therefore been designed as a mechanism for increasing the number of states participating in interdiction activities. Specific measures include the promotion of information-sharing mechanisms, the strengthening of national legal authorities and the exchange of best practices for preventing proliferation. The PSI also serves as a platform for carrying out joint exercises.\textsuperscript{33}

Mutual boarding agreements negotiated within the framework of the PSI have also sought to expedite search and seizure authorization for one another’s flagged vessels.

The initiative also allows for the boarding of aircraft suspected of being involved in the carriage of WMDs or related material. Practically, this means that participants can request that other states deny overflight authorization or search specific flights of proliferation concern while highlighting mutual participation within the PSI:

PSI participants are committed to the following interdiction principles... At their own initiative or upon the request and good cause shown by another state, to (a) require aircraft that are reasonably suspected of carrying such cargoes to or from states or non-state actors of proliferation concern and that are transiting their airspace to land for inspection and seize any such cargoes that are identified; and/or (b) deny aircraft reasonably suspected of carrying such cargoes transit rights through their airspace in advance of such flights.\textsuperscript{34}

**The Wassenaar Arrangement and the Organization for Security and Co-operation in Europe**

In a 2007 document the Wassenaar Arrangement on Export Controls recognized the use of air transport as ‘one of the main channels for the illicit spread of SALW, particularly to destinations subject to a United Nations arms embargo or involved in armed conflict’.\textsuperscript{35} The document outlined a set of best practices focusing on encouraging states to request more detailed information from exporters when they apply for licences for transfers involving the air transport of SALW. It encouraged states to share information with other Wassenaar Arrangement states about air carriers that fail to comply with such requests or that are involved in transfers that might contribute to a ‘destabilizing accumulation’ of SALW. The document also focused on air transportation by private aviation companies transporting arms or related material on behalf of private charterers.

In 2008, the OSCE’s Forum for Security Co-operation also adopted these best practices.\textsuperscript{36} The decision recommends that participating states seek additional information on transport modalities from any potential exporter of SALW before an export license is approved. If the information provided about the planned export is deemed destabilizing to the security and stability of the region or destination, or if the exporter fails to provide such information, participating states are urged to share relevant information with other states.

Both the Wassenaar and OSCE recommendations leave implementation to the discretion of member


states. A follow-up analysis focusing on the implementation of the guides highlighted the fact that national controls varied somewhat across different participating states and that they were likely to remain ‘profoundly heterogeneous’. The potential for transport modalities to alter after the export licence has been granted also undermines some of the utility of screening export licenses, and is further undermined if the export licence has been authorized by state authorities actively organizing or with an interest in the successful shipment of the export.

The guidelines were supplemented by the OSCE’s 2008 Astana Declaration, which called on participating states to ‘promote the wider introduction and use of air traffic control systems’ and to ‘promote the use of air traffic control data for purposes of post-fact analysis and of prevention of control of flights suspected to engage in trafficking in small arms and light weapons’.38

IV. CASE STUDIES

The following case studies from Turkey, Lithuania, Iraq and North Korea show that under certain circumstances states have been willing to deny permission for aircraft to enter their airspace to prevent weapons movements, or else submit foreign aircraft to inspection.

Turkey

Turkey is well placed to interdict illicit arms shipments due to the size and location of its airspace as well as the extent of its transportation, security and bureaucratic infrastructure. Turkish airspace is also a transit point between weapons manufacturers, stockpiles and maintenance and service centres in Eastern Europe and end-users in the Middle East or Africa subject to multilateral or unilateral Turkish arms embargoes. There have been numerous cases of Turkish authorities using powers granted by the Chicago Convention to condition overflight permission on inspection, or refusing overflight clearance outright. These have included the disruption of illicit arms transfers from North Korea, the inspection of cargo flights to Lebanon and Sudan under the terms of separate UN Security Council resolutions, and the refusal to allow Israeli aircraft entry into Turkish airspace in the aftermath of the 2010 raid on the Gaza flotilla.39

During the 2006 war in Lebanon, Turkish authorities conditioned permission for an Iranian Il-76 cargo carrier travelling to Syria to use its airspace on prior submission to inspection.40 After receiving three further overflight requests from Syria and Iran, Turkish Ministry of Foreign Affairs (MFA) staff again conditioned permission on inspection, explicitly highlighting Article 2 of the Chicago Convention—allowing for inspection of non-chartered aircraft—to the carriers and governments concerned.41 In 2007, a Turkish aviation centre notified the Turkish MFA that it had received a flight plan from a Russian-registered aircraft seeking to transit Turkish airspace between Iran and Syria. It subsequently became apparent that the Turkish Government had decided that all such flights should submit for inspection before receiving permission:

the decision had already been taken by the [Government of Turkey] to require this aircraft to land for inspection at Diyarbakir Airport, and that this request had already been conveyed. If the request for inspection is refused . . . Turkey will deny overflight clearance for this flight . . . we noted the potential for additional flights from Iran to Syria. . . . a political decision had been taken to request any cargo flight originating in Iran and bound for Syria to land in Turkey for

37 Bromley, M. et al. (note 31).
inspection. Refusal of inspection would result in denial of overflight clearance.\textsuperscript{42}

One well-documented example of a successful interdiction was reported to the UN Panel of Experts monitoring the embargo on Iran in 2011.\textsuperscript{43} A non-scheduled Yas Air II-76, registration EP-GOL, was granted overflight clearance for a flight departing Tehran for northern Syria on condition that it land for inspection at Diyarbakir Airport in eastern Turkey. During inspection, 19 crates of military cargo prohibited under the UN arms embargo on Iran were discovered. The aircraft had flown the same route only three days prior to the incident and had also been diverted to Diyarbakir for screening. The case highlights how authorities in Turkey have been targeting specific routes and operators for inspection.

The UN Panel of Experts alleges that Yas Air is the civilian aviation arm of the Islamic Revolutionary Guards Corps (IRGC).\textsuperscript{44} Approximately half of the Yas Air aircraft fleet was in fact formerly registered with the IRGC. As a direct result of the interdiction in Turkey, the UN sanctioned the entire Yas Air fleet for its involvement in embargo-violating activity.\textsuperscript{45}

With the prolongation of the conflict in Syria and an inability to agree on a UN embargo at the international level, the Turkish Government has made enforcement of its own unilateral embargo on Syria a key feature of its military strategy to end the conflict as well as its regional and global political strategy. The Turkish Prime Minister, Recep Tayyip Erdogan, announced a unilateral arms embargo on Syria in September 2011, stating that Turkish authorities would ‘stop and confiscate . . . planes carrying weapons’.\textsuperscript{46}

In October 2012, Turkey stopped and inspected two Armenian-registered commercial cargo aircraft on their way to Syria. Finding no military equipment on board, both aircraft were released within hours.\textsuperscript{47} More controversially, in the same month Turkish Air Force jet fighters intercepted a Syrian Air A320-200, registration YK-AKE, on a scheduled flight from Moscow’s Vnukovo airport to Damascus via Aleppo. Turkish Government spokesmen and diplomats were quick to claim to have found ‘illegal cargo’ on board the aircraft, although it is now believed to have been carrying spare parts for radar systems.\textsuperscript{48} The Syrian Transport Minister labelled the incident an act of ‘air piracy’, while Russian authorities explicitly denied that there had been any prohibited goods on board.\textsuperscript{49} The incident attracted international media attention, highlighting the serious diplomatic consequences of perceived interference with a state’s aircraft. The legality of such inspections was also disputed. Syria and Turkey are both signatories to the IASTA. While states’ use of the Chicago Convention to inspect cargo aircraft is relatively unproblematic, intercepting a scheduled passenger jet is clearly more controversial. Turkey has implemented Chicago Convention provisions in its Civil Aviation Act, Article 94 of which compels any passenger or cargo aircraft to land at designated airports ‘for reasons of security, public order or homeland security’.\textsuperscript{50} The fallout from the incident led to both Turkey and Syria denying all permission for one another’s aircraft to use their airspace.

In November 2012, documents purporting to be overflight permission requests stored on a Syrian Foreign Ministry server were made available online. If authentic, the documents offer proof of a clear and deliberate effort to transit military helicopters around Turkish airspace as a result of the ban and inspection requirements.\textsuperscript{51}

\textsuperscript{44} United Nations, Security Council, (note 43).
\textsuperscript{51} Shuster, S., ‘Is Russia running a secret supply route to arm Syria’s Assad?’, Time, 29 Nov. 2012.
Lithuania

Between July and September 2011, a Syrian Air Cargo Il-76 was refused overflight permission by Lithuania after state authorities had received intelligence that indicated the cargo plane was carrying military items from the Russian enclave of Kaliningrad to Damascus.52

The aircraft, registered as YK-ATA, requested overflight permission for eight separate flights from Damascus to Kaliningrad two months after the EU had passed Council Regulation 442/2011 prohibiting arms deliveries via EU territory to Syria. As the Lithuanian MFA had received a ‘credible’ report that the aircraft was intended to ferry Syrian military attack helicopters, it refused several requests for overflight permission.53

In June 2012 the US Secretary of State, Hillary Clinton, expressed concern ‘about the latest information . . . that there are attack helicopters on the way from Russia to Syria’, adding that such a sale ‘will escalate the conflict quite dramatically’. The British Foreign and Commonwealth Office (FCO) also confirmed in June 2012 that it was aware of a consignment of refurbished Russian-made attack helicopters being ferried to Syria from the Kaliningrad port of Baltiisk. International media outlets and ship-tracking data confirmed that a vessel had left Baltiisk in June but had subsequently returned to the port after its insurance had been revoked.54

Reuters also reported that a source close to Rosoboronexport claimed that at least nine Mi-25 helicopters had been sent to Kaliningrad to be repaired by Oboronservis, owned by the Russian Ministry of Defence, in June 2009.55

Iraq

The overflight of Iraq by Iranian carriers allegedly supplying military equipment to the Syrian Government has become one of the most sensitive issues in Iraq–US relations and has received international attention within the context of the current conflict in Syria as well as relations between Iran and Iraq.

On 16 March 2012, a US Department of State spokesman expressed the US Government’s concern that ‘the over-flight of Iraq by Iranian cargo flights headed to Syria’ could be in violation of UN sanctions against Iran and that the State Department was consulting with Iraqi authorities on the issue.56

Illustrating the ease with which aircraft could fly from Iran to Syria, only four days prior to the State Department press conference, a picture of the aircraft YK-ATA was published on a popular plane-spotting website.57 International and regional pressure led Iraqi authorities to claim that they subsequently began to ‘routinely stop cargo planes that fly over Iraq to Syria or leave directly from Iraq to Syria to make sure they aren’t carrying arms’. This declaration convinced US military officials that specific flights of concern had indeed stopped.58

However, further reports concerning the use of Iraqi airspace by Iranian cargo aircraft resurfaced later in the year, leading the USA to threaten to review its aid donations to Iraq.59 Reports also emerged that Iraqi officials had denied a North Korean registered aircraft permission to use Iraqi airspace, citing concerns about the nature of its cargo. A media adviser to Iraq’s Prime Minister told Reuters of the Iraqi Government’s suspicions:

Continuing the Iraqi government policy to investigate the passing of weapons to Syria through Iraqi land and air space, the Iraqi authorities prevented a North Korean plane from going to Syria, after they suspected that the plane was shipping weapons.60

However, by December 2012 reports citing ‘American intelligence assessments’ claimed that Iraqi authorities were in fact colluding with Iranian authorities to ensure that prohibited cargo was not inspected by

53 Lithuanian MFA officials, Communication with author, 22 June 2012.
55 Saul and Grove (note 54).
Iraq. The documents released in November 2012 revealed an apparent effort by the Syrian authorities to collect Mi-25 helicopters from Russia using a routing through Iraq as an alternative to using Turkish airspace. While Iraqi officials did indeed ask to inspect some flights, amateur photographs taken on the date on which the documents showed that the helicopters were scheduled to be collected from Zhukovsky Airport in Russia suggest that the aircraft was indeed there.

Iraqi authorities have drawn attention to their inability to effectively police their airspace. Iraqi security forces have only been responsible for policing Iraq’s airspace since the withdrawal of international troops in December 2011. During the conflict in Iraq, international troops were able to provide mobile radar coverage and enforcement ability using combat aircraft. Radar coverage is currently provided by ATC radars and long-range AN7/TPS-77 Air Search Radars. While Iraq has 18 Block 52 F-16 combat aircraft on order from Lockheed Martin in the USA, they are not expected to arrive until 2014, leading some analysts to argue that Iraq will not be able to enforce national air sovereignty before 2016.

Lacking the ability to enforce national air sovereignty, states such as Iraq rely instead on political diplomacy. States are also able to highlight airspace breaches at the UN Security Council, while the International Court of Justice has also previously ruled on unauthorized overflights and found them to be ‘an infringement of the principle of respect for territorial sovereignty’.

North Korea

International efforts aimed at limiting North Korea’s nuclear programme and conventional arms trade have involved a series of UN Security Council resolutions and a range of non-proliferation initiatives and diplomatic efforts. Attempts to mitigate North Korea’s use of shipping vessels and aircraft to transfer material and expertise have involved the targeting of insurance and registration providers and bunkering services, and the inspection or denial of aircraft.

On 11 December 2009, authorities in Thailand acting on US intelligence inspected an Il-76 aircraft on a fuel stop with 35 tons of falsely declared military-related equipment on board. The UN Group of Experts monitoring sanctions against North Korea reported that estimates of the crates’ value (the contents of which included man-portable air defence systems and rocket-propelled grenades), suggested they could be worth up to $18 million. The UN Group of Experts believed that the aircraft, which departed North Korea’s Sunan International Airport, was destined to a consignee based in Iran, which would have put the flight in breach of sanctions against both countries.

Several other incidents point to a concerted effort to interdict DPRK-related flights of proliferation concern. Throughout 2008, US ambassadorial staff issued a series of diplomatic démarches to a range of states, providing them with intelligence suggesting that a transfer of proliferation concern was due to take place on-board a flight to Syria chartered by the North Korean flag-carrier, Air Koryo. An initial démarche suggesting that the flight was due to take place in February 2008 was issued to Afghanistan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. After the date was delayed to April 2008, and a follow-up démarche issued, Kazakhstan informed US embassy staff in Kazakhstan that they had rejected an overt flight request as a result of the intelligence.

62 Shuster (note 51).
In July 2008, Kazakh officials approached US embassy staff to say that they had received a request for overflight from Air Koryo for a non-scheduled passenger flight to Tehran, and that they would probably refuse permission. The Kazakh MFA received the request from an intermediary flight management service based in Dubai. Acting on this information, US embassy staff then issued a démarché to China and a group of Central Asian states likely to receive an overflight request, asking them to deny such permission or to inspect the aircraft for any illicit transfers. In August 2008, Air Koryo made a request to carry out the round-trip via Myanmar. Acting on this, US embassy staff then provided Bangladeshi, Chinese, Indian and Pakistani officials with the specifics of the flight, asking them to deny permission if an overflight request was made.

Similar diplomatic efforts to stop flights of concern have been directed at diplomatic missions in the Gulf with regards to flights transiting to Sudan; and at Jordan, Russia and Saudi Arabia with regards to specific flights transiting cargo suspected to be destined for Hezbollah.

V. EXPANDING THE USE OF OVERFLIGHT DENIAL AND CONTROL MECHANISMS

The above four case studies demonstrate how aircraft can be subjected to an inspection or denied access to a particular route using overflight rights. They highlight how inter-agency cooperation between national aviation and intelligence authorities can be deployed to proactively monitor particular flights and how interstate cooperation can be used to interdict specific flights of concern. However, there are also cases in which aircraft transporting military goods to a destination subject to a UN or EU embargo have transited the airspace of states committed to enforcing such embargoes. The principal challenges for national authorities and regional or multilateral bodies seeking to incorporate airspace denial and inspection practices more systematically include addressing an absence of political will and awareness, incorporating information coordination into existing state practices and addressing a lack of physical capacity.

The absence of political will

As discussed above, international efforts in the form of démarches and interstate information sharing do exist, but appear to focus on terrorist or WMD-related counter-proliferation concerns. For example, while efforts have been made to intercept specific flights of concern from Sudan that are suspected to be en route to militants in the Gaza Strip, there is no publicly available and verifiable information on similar efforts to disrupt specific flights that are likely to be carrying military equipment used in contravention of UN sanctions aimed at Darfur. This is despite the fact there is no more legal imperative to interdict aircraft carrying prohibited material using Sudan as a transit point en route to the Gaza Strip than there is to intercept flights to Sudan with prohibited material en route to Darfur.

While military supplies to Sudan are prohibited by EU member states, EU airspace has been used by non-EU members to deliver military equipment to Sudan that has since been identified in Darfur. Belarus, which supplied the Sudanese Air Force with Sukhoi-25 ground attack aircraft between 2008 and 2010—aircraft that were later used in Darfur—as well as S8-type rockets that may have been identified in Darfur in 2011, delivered the original shipments through airspace controlled by Eurocontrol. Indeed,
One flight in December 2010 from Minsk to Khartoum conducted by the same civilian airliner used for other military transfers actually transited Romania and Greece—both EU member states—on its way to Sudan. Further, a consignment of Antonov-26 aircraft—the type that are routinely used by the Sudanese Air Force in offensive military offensives, including aerial bombardments in Darfur—were delivered to Sudan from Ukraine through Eurocontrol airspace.76 Examples such as this highlight the importance of political will when it comes to interstate cooperation and intelligence sharing between states.

Incorporating information coordination into existing state practices

The wider integration of overflight denial and control mechanisms depends on competent state authorities being made aware of suspect aircraft or cargoes. This information may be obtained through three principal means.

First, information may be shared between national intelligence agency and civil aviation authorities. Safety and speed of service are overriding considerations for civil aviation authorities engaged in air navigation. This means that their expertise in identifying military equipment flights of concern may be limited. National and regional ATC authorities must therefore be able to liaise with and provide information to other national authorities focused on customs, export control or proliferation issues. Such cooperation requires that aviation authorities are made aware of risk indicators or that other authorities have access to live flight data. Such inter-agency information sharing at the national level can be formalized to provide an effective interface for the exchange of information.

Turkey provides an example of such effective practice. All overflight requests for dangerous goods or munitions of war are passed to the Turkish MFA before approval can be applied. Moreover, if the destination of the aircraft is sensitive but the flight plan does not indicate the carriage of any dangerous goods or munitions of war, the MFA will still check the flight to ascertain whether or not the aircraft should be inspected.77

A second principal source of data on suspect flights is information shared between states, either formally or informally, in order to synthesize resources and exchange intelligence. This is especially important in the context of aircraft transporting illicit goods, given that aircraft operators are able to alter their routings and request permission to do so at short notice. Regional and international cooperation is therefore essential in ensuring that aircraft operators that have been denied permission in one territory are not then simply able to find permission via another territory. As discussed above, however, such interstate cooperation is contingent on state priorities and political leverage.

The third means of gaining reliable information on suspect flights is by filtering overflight data using risk assessment software. The overflight data is provided in advance as a matter of course to national air traffic control authorities. In most cases, the data or key anomalies necessary for a reliable risk assessment may even be found within the flight plan. Such considerations may include the flight’s origin and destination, the operator of the aircraft and a description of its cargo. The consignee of the cargo will also appear on the airway bill for the flight, which is accessible to third party planning agencies.

All three methods require national points of contact between the civil aviation authority that controls or denies the flight and the intelligence agency that provides the information on the flight.

Addressing the capacity gap

The ability to provide a reliable risk assessment based on flight data is dependent on the capacity of the state and expertise within its agencies. In general, expertise and capacity are currently unevenly developed across states and are severely constrained by budgetary limitations. This is further compounded by a lack of physical resources, such as long-range or secondary surveillance radar systems. Indeed, in conflict zones such as Somalia, aircraft have been known to avoid filing flight plans so as to also avoid overflight charges.78 Successive UN panels and monitoring groups have documented how aircraft have been able to take advantage of a state’s weak capacity to enforce its airspace to transport illicit goods.

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76 Gramizzi, Lewis and Tubiana (note 75), p. 33.
77 Turkish MFA officials (note 50).
It is also vital that states are able to police their airspace effectively. Perceived weaknesses have in the past fostered an environment wherein operators and networks engaged in illicit activities have been able to make unscheduled landings or route changes. Currently, many African states do in fact require that aircraft declare munitions of war and seek prior permission before doing so. For example, member states of the Agency for Aerial Navigation Safety in Africa and Madagascar (ASECNA) require non-scheduled aircraft to provide their complete routing and the nature of their cargo for overflight permissions. However, in the absence of effective surveillance procedures, the effect of such regulation is limited. Despite this, what makes the use of flight plans of particular value to a wide range of states seeking to enforce either UN, EU or other regional arms embargoes is the fact that the data needed to make a reliable risk assessment and interdict aircraft of concern is nominally accessible to all states, irrespective of their physical capacity.

VI. EXPANDING THE USE OF OVERFLIGHT DENIAL AND CONTROL MECHANISMS WITHIN EUROPEAN UNION AIRSPACE

EU restrictive measures, UN Security Council resolutions and PSI partnerships provide EU member states with both legal authority and a mechanism through which to control access to their airspace. As discussed above, however, there is no explicit expectation that states will proactively use access to their airspace as a tool to enforce restrictive measures. While recognizing in principle that member states exercise sovereignty over their airspace and are afforded powers under the Chicago Convention, the EEAS finds that because of the difficulties involved in establishing solid grounds to believe an aircraft is involved in illicit activity, it is difficult for member states to bypass bilateral and multilateral overflight agreements such as the IASTA. In effect, this means that it is difficult for member states to ensure that their airspace is not being used by aircraft carrying prohibited items. Further, as states themselves are responsible for integrating into national law EU Council decisions related to sanctions legislation, it is difficult for policymakers at the EU level to insist on such relatively controversial enforcement measures. Nevertheless, the Lithuania case and other examples show how EU member states have proactively used access to their airspace to mitigate the transfer of material prohibited within their own export controls.

The case of Ireland

Ireland applies rigid controls to the granting of overflight permission, bolstered by a strong civil society movement aimed at stopping the use of Irish airports for extraordinary rendition and other military activity. Ireland individually considers each overflight request that is declared to be carrying munitions of war. Permission is granted by the Department of Transport in consultation with the departments of Foreign Affairs, Justice and Defence and the Irish Aviation Authority. Less than 1 in every 1000 of the approximately 300,000 annual applications for overflight that Ireland receives is declared as carrying munitions of war.

One freedom of information request shows that between January 2010 and October 2011, the Irish Aviation Authority received 268 requests for the overflight of munitions of war. Of the 27 that were refused, at least 17 were refused due to the nature of the cargo. Of these 17, it is believed that several were refused on the grounds that they contained white phosphorous, and would as a result have compromised

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79 ASECNA official, Communication with author, 29 June 2012.
81 EEAS Sanctions Policy and Sanctions Division officials, Communication with author, 14 Nov. 2012.
82 Much of the primary research for this section was conducted by Mike Lewis, independent consultant.
83 See e.g. ‘Shannon Watch: monitoring foreign military use of Shannon Airport’, <http://www.shannonwatch.org/>.
84 Bromley, M. et al. (note 31), pp. 49–51.
86 Permission/denial records released to Mike Lewis under the Irish Freedom of Information Act 2000 (1997). This excludes flights with weapons-carrying personnel, carrying their personal weapons only. It also excludes military flights through Irish airspace.
87 Permission/denial records released under the Irish Freedom of Information Act 2000 (1997) by the Irish Department of Transport, Tourism and Sport, on file with Mike Lewis.
Ireland’s international obligations. During 2003, Ireland refused four overflight permissions on the grounds that they had intended to carry landmines. In 2004, two flights declared to be carrying anti-tank rocket grenades were refused permission on the grounds of ‘cargo and flight path’.

Other European cases

Such controls over airspace access is possible not only because of inter-agency coordination, but also because Ireland uses its Chicago Convention powers to require that airlines declare all munitions of war for each individual flight. This is not the case in other European states, some of which do not require case-by-case approvals and many of which have different ministries in charge of approving applications. The UK, for example, issues long-term licences that are assessed and provided on safety grounds by the Civil Aviation Authority’s Dangerous Goods Office. Once they have received a permit to carry such munitions, the UK does not require that they then reapply for permission for each flight. National Air Traffic Services (NATS), the UK’s air traffic management agency, does not have the competence or responsibility to assess the purpose of flights or the nature of their cargo once they receive flight plans.

There have been cases where flights likely to have transited through European airspace were in violation of EU restrictive measures. For example, at least one of the flights denied permission by the Lithuanian authorities on the basis of intelligence indicating that it was carrying attack helicopters is thought to have eventually landed at an airbase in Kaliningrad before transiting back to Damascus in Syria.

Just five days after Turkey announced its unilateral arms embargo on Syria in 2011, the same aircraft transited through Turkish airspace to Damascus from Zaporizhia in Ukraine, home of the Motor Sich Defense Company. According to Eurocontrol, other movements of the aircraft identified by the UN as being linked to the IRGC and intercepted in Turkey with prohibited military goods bound for Syria show that it had flown to Minsk, Belarus in March 2012, and was transiting between an Iranian military/civilian airport and Tunisia in July 2011, and from Benghazi, Libya, in August 2011. These flights were not only within European radar visibility but were also likely to have passed through the airspace of EU member states.

In July 2010, an Il-76 crashed in Podgorica, Montenegro, with small arms on board destined for Armenia, which is currently subject to a voluntary OSCE arms embargo. These flights were made within European radar visibility and through OSCE member states, and most probably through EU member states committed to the OSCE embargo. According to Eurocontrol, flight records indicate that the carrier had made 31 outbound trips from Montenegro between May and August 2010, while several Armenian-registered Il-76s with a payload of up to 50 tonnes each made a total of 48 trips from Podgorica to Yerevan between May 2010 and February 2011.

In contrast to the UN arms embargo on Sudan, which targets Darfur, the EU’s restrictive measures are in force across the entire territory of Sudan. In 2011 the UN Panel of Experts monitoring the embargo on Darfur reported Su-25 jets as well as Mi-24 and Mi-17 helicopters operating in Darfur in violation of the embargo. These aviation assets were delivered to Sudan from Russia and Belarus, within European radar visibility. Human rights groups have argued that the ‘importance of Mi-24 gunships in the Darfur conflict cannot be overstated’.

European advantage

The EU has at its disposal an effective and efficient infrastructure through which to facilitate interstate information sharing, inter-agency coordination and

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88 E.g. restrictions on the use of incendiary weapons imposed by Protocol III of the Convention on Certain Conventional Weapons.
90 Bromley, M. et al. (note 31).
91 British Civil Aviation Authority, Dangerous Goods Office, Correspondence with author, 21 June 2012.
93 Council of the European Union (note 75).
awareness. The SES initiative provides an integrated regional approach to the governance of EU member states’ aviation policies.96 A central coordinating agency, Eurocontrol, administers matters related to air navigation and other flight safety issues within the wider European region. Eurocontrol has assumed responsibility for the planning and processing of air traffic control requests in conjunction with national air traffic control centres. All IFR flight plans completed by operators (or commercial agents) are processed and accepted by Eurocontrol’s Central Flow Management Unit (CFMU) before confirmations are issued to national control centres in preparation for the flight itself. The CFMU’s IFPS can receive up to 35 000 flight plans a day, spread over 544 major airports and a number of small airfields.97 The IFPS zone currently consists of 41 states, including two large non-EU member states, Turkey and Ukraine. Coupled with the SES initiative, this administering of flight plans by a central agency is potentially extremely effective in monitoring and deterring flights carrying prohibited cargo. While national policies towards the granting of overflight permissions within the EU remain highly divergent, ongoing efforts to harmonize such procedures could allow for greater clarity and increased standards between states. Further, the data accumulated by the CFMU has the potential to provide states with one of the most effective tools for implementing an informed risk assessment. Eurocontrol satellites also allow coverage across the European mainland as well as parts of North Africa and Sudan, the Southern Caucasus and the Middle East.

**Eurocontrol’s Flight Assessment and Alert System**

In 2006, under the SES initiative, the EU established a blacklist of aircraft and operators banned from entering EU airspace because they cannot guarantee minimum maintenance and safety standards. The European Commission issues this blacklist to Eurocontrol along with a list of aircraft or operators that should be prioritized for ramp inspections at EU airports. This data is then compared to flight plans filed by operators applying for access to EU airspace or airports. If there is a match, an alert notification is issued by the system to the European Commission, the European Air Safety Agency, all national ATC centres that are being overflown and states in which the flight will land. This mechanism has proven effective in denying entry to specific aircraft or sharing information between states regarding which aircraft should be subject to ramp inspections by aviation safety officials. In practice, the same principles and mechanism could be used to effectively screen flight plan applications for aircraft that are potentially involved in embargo violations or otherwise destabilizing flights of concern.

## VII. CONCLUSIONS AND RECOMMENDATIONS

**General recommendations**

National and intergovernmental authorities concerned with designing, monitoring and enforcing embargoes should state explicitly if overflight permissions should be used to enforce embargoes and if the granting of permission for such flights would constitute a breach of such provisions. Further, national authorities should consider whether or not their regulations governing overflight permissions should include a risk assessment for arms embargo breaches or other counter-proliferation measures.

States have differing requirements when it comes to the level of information that they wish to receive when processing overflight applications. National export control policymakers should consider whether their national system requires carriers to declare on an individual basis whether flights are carrying munitions of war. As the case of Ireland demonstrates, such requirements are feasible and do not constitute an excessive burden on state instruments, even for states on busy (transatlantic) routes such as Ireland. In addition, embargo provisions could then stipulate that high-risk or prohibited flight plans declaring the carriage of munitions of war be denied authorization or inspected.

As the case studies in this paper suggest, interagency coordination between aviation agencies and government departments—including intelligence

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agencies, export control agencies and defence ministries—is crucial to gathering information and identifying risk categories. National policymakers should consider whether information sharing between their state agencies is suited for such an interface.

Flight management intermediaries fulfil a crucial function within the flight plan processing system. At least two of the case studies explored above involved the cooperation of private intermediaries and the exchange of information between such companies and state authorities. The fact that they can also request access to airway bills and cargo descriptions suggests that outreach with such private companies could be of use for risk-assessment and early-warning purposes.

In conflict-affected and less-developed states, the capacity to police airspace is extremely limited. Both capacity-building projects within such countries and interstate information sharing have the potential to significantly improve this ability and in doing so drastically improve governance and security.98

As some of the other cases attest, interstate information sharing is important for two reasons. First, it is useful to proactively share intelligence on specific flights that other national agencies have not got access to. Second, given that aircraft can simply change their routeing if they have been denied permission, it is essential that state authorities communicate with one another in order to mitigate the possibility of this. The Lithuanian case demonstrates the acute need for such cooperation. Turkish authorities have also highlighted the fact that aircraft they have asked to inspect have as a result altered their course and been able to reach their destination without using Turkish airspace.99

Recommendations for European Union bodies and member states

Fight plans represent a critical source of information for authorities seeking to establish further information on a flight and the nature of the goods being transited. The centralization of such fight plans thus offers enormous advantages. EU member states are well placed to ensure that aircraft involved in the carriage of prohibited material do not use their airspace. In order to use the denial of airspace permission or conditioned permission, EU and national policymakers should consider the following main points.

Eurocontrol and other regional ATC groupings such as ASECNA have the capacity to provide the necessary cooperation. Further, the coverage of Eurocontrol radar has made it possible to use flight data information in diplomatic efforts to encourage non-EU partner states to inspect aircraft of specific concern. The case studies show that démarches make explicit reference to obligations under UN Security Council resolutions or cooperation within the PSI partnership when states are asked to inspect or deny access to specific shipments. Specific provisions in EU and UN provisions can also facilitate greater cooperation.

The level of due diligence expected of states when allowing permission for access to airspace remains unspecified. The Council of Europe’s (COE) Venice Commission on the international legal obligations of COE member states in respect of secret detention facilities and interstate transport of prisoners concluded that member states should refuse access to their airspace if there is a risk of ill treatment of prisoners.100 Further, civil society groups campaigning against extraordinary rendition often highlight access to state airspace as an enabling factor for such practices.101 Where necessary, such obligations should be explicitly stated in EU embargo provisions. While it is sometimes difficult to ascertain the actual nature of cargo aboard aircraft, a risk-based approach combined with inter-agency and national coordination could make a level of due diligence or risk assessment possible.

Non-governmental organizations or civil society actors concerned with illicit or destabilizing military transfers may also wish to consider the ability of governments to limit the use of their airspace for such purposes in their campaigning. While civil society pressure has been applied in relation to extraordinary rendition and more generally has been instrumental in pushing forward international talks on a potential arms trade treaty (ATT), there has been limited focus

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99 Turkish MFA officials (note 50).
on establishing whether governments are doing all that is within their legal and diplomatic capacity to limit destabilizing or illicit transfers of military equipment by using overflight denial and control.

Conclusions

Overflight denial and control, including the use of permission denial and conditioning, has clearly been shown to be an effective enforcement mechanism capable of disrupting specific flights carrying prohibited material. It is grounded in well-defined international laws, making it a unique tool for interdicting aircraft engaged in the illicit carriage of embargoed goods and other illicit or destabilizing activities. Further, the screening of flights carrying munitions of war can play a key role in transit controls.

Addressing issues relating to capacity, awareness and information sharing should be a priority for national, regional or international authorities looking to either adopt the mechanism themselves or expand its wider usage. While the case studies in this paper suggest that overflight denial and control is a viable option for many states, its utility is currently somewhat limited due to a lack of coordination in efforts to address these three factors.

 Agencies charged with export and transit controls at the national, regional and international levels need to take a coordinating role in collaboration with civil aviation authorities. Further, states with limited capacity for the integration of such an enforcement mechanism can benefit considerably from assistance in the form of training, information sharing or physical capacity building. Ultimately, embargo enforcement techniques require clarity in their design and orchestration in their implementation. International and regional organizations such as the UN and the EU and their member states that design, impose and monitor the enforcement of embargoes can take a leading role in this regard.

ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>ASECNA</td>
<td>Agency for Aerial Navigation Safety in Africa and Madagascar</td>
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<td>ATC</td>
<td>Air traffic control</td>
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<td>ATT</td>
<td>Arms trade treaty</td>
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<td>CBRNE</td>
<td>Chemical, biological, radiological, nuclear and explosive</td>
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<td>CFMU</td>
<td>Central Flow Management Unit</td>
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<td>COE</td>
<td>Council of Europe</td>
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<td>EEAS</td>
<td>European External Action Service</td>
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<td>FIR</td>
<td>Flight information region</td>
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<td>IASTA</td>
<td>International Air Services Transit Agreement</td>
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<td>IFPS</td>
<td>Integrated Initial Flight Plan Processing System</td>
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<td>IFR</td>
<td>Instrument flight rules</td>
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<td>IRGC</td>
<td>Islamic Revolutionary Guards Corps</td>
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<td>ISAF</td>
<td>International Security Assistance Force</td>
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<td>OSCE</td>
<td>Organization for Security and Co-operation in Europe</td>
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<td>PSI</td>
<td>Proliferation Security Initiative</td>
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<td>RELEX</td>
<td>Working Party of Foreign Relations Counsellors</td>
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<td>SALW</td>
<td>Small arms and light weapons</td>
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<td>SES</td>
<td>Single European Sky</td>
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<td>SITCEN</td>
<td>Joint European Union Situation Centre</td>
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<td>VFR</td>
<td>Visual flight rules</td>
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<td>WMD</td>
<td>Weapons of mass destruction</td>
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A EUROPEAN NETWORK

In July 2010 the Council of the European Union decided to create a network bringing together foreign policy institutions and research centres from across the EU to encourage political and security-related dialogue and the long-term discussion of measures to combat the proliferation of weapons of mass destruction (WMD) and their delivery systems.

STRUCTURE

The EU Non-Proliferation Consortium is managed jointly by four institutes entrusted with the project, in close cooperation with the representative of the High Representative of the Union for Foreign Affairs and Security Policy. The four institutes are the Fondation pour la recherche stratégique (FRS) in Paris, the Peace Research Institute in Frankfurt (PRIF), the International Institute for Strategic Studies (IISS) in London, and Stockholm International Peace Research Institute (SIPRI). The Consortium began its work in January 2011 and forms the core of a wider network of European non-proliferation think tanks and research centres which will be closely associated with the activities of the Consortium.

MISSION

The main aim of the network of independent non-proliferation think tanks is to encourage discussion of measures to combat the proliferation of weapons of mass destruction and their delivery systems within civil society, particularly among experts, researchers and academics. The scope of activities shall also cover issues related to conventional weapons. The fruits of the network discussions can be submitted in the form of reports and recommendations to the responsible officials within the European Union.

It is expected that this network will support EU action to counter proliferation. To that end, the network can also establish cooperation with specialized institutions and research centres in third countries, in particular in those with which the EU is conducting specific non-proliferation dialogues.

http://www.nonproliferation.eu