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# Articles


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# LIABILITY FOR THE DEATH OF AIRCRAFT PASSENGERS IN INDONESIA

SIMON BUTT*
TIM LINDSEY**

## I. INTRODUCTION

ON OCTOBER 29, 2018, Lion Air Flight 610 crashed into the Java Sea off the coast of Jakarta, the capital of Indonesia, thirteen minutes after take-off.[1] All 189 passengers and crew members died.[2] The route was domestic, from Soekarno-Hatta Airport in Jakarta to Depati Amir Airport in Pangkal Pinang, on the east coast of Banka Island.[3] The aircraft was a Boeing 737 MAX 8.[4] The decedents' families sought compensation for their losses and engaged lawyers to sue The Boeing Company (Boeing).[5] Some of this litigation was commenced in the United States, where Boeing is headquartered.[6] During the course of the U.S. litigation, lawyers for Boeing questioned whether the

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1 Sinéad Baker, *This Timeline Shows Exactly What Happened on Board the Lion Air Boeing 737 Max that Crashed in Less than 13 Minutes, Killing 189 People*, BUS. INSIDER (Oct. 29, 2019, 12:11 PM), businessinsider.com/lion-air-crash-timeline-boeing-737-max-disaster-killed-189-2019-10 [perma.cc/UPU5-JUMQ].

2 *Id.*

3 *Id.*

4 Hannah Beech & Muktita Suhartono, *Lion Air Crash Families Say They Were Pressured to Sign No-Suit Deal*, N.Y. TIMES (Mar. 21, 2019), nytimes.com/2019/03/21/world/asia/lion-air-crash-families-lawsuits.html [perma.cc/XT24-AWKC].

5 *Id.*

6 *Id.*; David Wilma, *On this Day: Boeing Moves Corporate Headquarters to Chicago in 2001*, KIRO 7 (Sept. 4, 2018, 10:48 AM), kiro7.com/news/local/on-this-day-boeing-moves-corporate-headquarters-to-chicago-in-2001/827067193 [perma.cc/C27L-UCCZ].

compensation claims should be litigated in Indonesia, where the accident occurred, based on forum non conveniens grounds.[7]

A U.S. court will need to consider a multitude of factors when determining whether to stay litigation initiated within its jurisdiction. Here, the Authors consider two of those factors: (1) Indonesian law governing liability for the death of aircraft passengers for negligence; and (2) how a claim against an aircraft carrier or manufacturer is likely to be resolved by Indonesia's courts. The Article begins with a brief description of the Indonesian legal system and the regulatory regime governing liability for losses incurred during air travel. The Authors then offer a more detailed account of Indonesia's civil liability regime, focusing on damages for negligent acts and omissions, before analyzing *Mahkamah Agung* (Supreme Court) decisions involving civil liability for losses related to fatal air crashes. Before addressing these legal issues, the Authors now offer a short background to aviation in Indonesia.

Comprising over 17,500 islands spread over 5,150 kilometers east to west, populated by over 270 million people, Indonesia is the largest archipelago in the world.[8] Its transport infrastructure depends heavily on a large network of over sixty private air carriers (many low-cost), alongside the national flag carrier, Garuda, which is a state-owned enterprise.[9] Lion Air carries the most passengers (around 35%), followed by Garuda (around 26%).[10] Indonesia's air travel market is huge: between 2009 and 2014, the number of air passengers increased by over three times, from 27,421,235 to 85,215,879.[11] By 2036, the International Air Transport Association predicts that 355 million passengers will travel

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[7] David Gelles, *Boeing Aims to Move Victim Lawsuits Abroad, but CEO Says He Is Unaware*, N.Y. TIMES (Nov. 10, 2019), nytimes.com/2019/11/10/business/boeing-lion-air-lawsuits-indonesia.html [perma.cc/6MXR-UC25].

[8] *Indonesia General Information*, UNDATA, data.un.org/en/iso/id.html [perma.cc/3RGW-EJ4M]. The population estimate is current as of November 2020.

[9] Prasadja Richardianto, Gunawan Djajaputra & H.K. Martono, *Air Transport and Tourism in Indonesia*, 10 IOSR J. APPLIED CHEMISTRY, May 2017, at 1, 18; *Indonesia's Aviation Industry: Flying High*, GLOB. BUS. GUIDE INDON. (2017), gbgindonesia.com/en/services/article/2017/indonesia_s_aviation_industry_flying_high_11719.php [perma.cc/3SJF-M2J2].

[10] *Indonesia's Aviation Industry: Flying High*, *supra* note 9. These numbers are current as of 2015. *Id.*

[11] *Data: Air Transport, Passengers Carried*, WORLD BANK (2018), data.worldbank.org/indicator/IS.AIR.PSGR [perma.cc/2N7T-FQD9].

by air in Indonesia, making its commercial transport aviation market the world's fourth largest.[12]

Unfortunately, Indonesia seems to have one of the world's least safe aviation industries. The number of accidents has increased significantly since the turn of the century, as aviation fuel prices have surged and competition—particularly among low-cost carriers—has increased, driving maintenance standards down.[13] In 2007, Indonesia's civil aviation head, Budhi M. Suyitno, admitted his country had 3.77 fatal flight accidents for every one million flights, when the global average was 0.25.[14] Indonesia's safety record was, he said, "woeful" and the situation "absolutely unacceptable."[15] From 2007 to 2018, the European Union banned Indonesian airlines over safety concerns[16] (although Garuda was allowed to enter from 2009[17]), and the United States maintained a similar ban from 2007 to 2016.[18]

In these circumstances, it could be expected that claims for compensation relating to air fatalities would be common in Indonesian courts and that a sophisticated body of jurisprudence—one that offers clarity to parties to such litigation regarding potential liability and quantum of damages—might have developed. Unfortunately, research demonstrates that, in fact, the opposite appears to be true. Despite the large numbers of accidents, very few claims for liability for the death of aircraft

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[12] Rachmadea Aisyah, *Indonesia Prepares for Jump in Number of Air Passengers*, JAKARTA POST (Feb. 9, 2018, 11:12 AM), thejakartapost.com/news/2018/02/09/indonesia-prepares-for-jump-in-number-of-airline-passengers.html [perma.cc/3C5Y-D8EW].

[13] *See* Elisa Valenta, *Membedah Penyebab Mahalnya Harga Avtur di Indonesia* [*Dissecting the Causes of High Aviation Prices in Indonesia*], BERITAGAR (Feb. 14, 2019), beritagar.id/artikel/berita/membedah-penyebab-mahalnya-harga-avtur-di-indonesia [perma.cc/39KG-WMUS?type=image].

[14] *Safety Woeful, Admits Air Chief*, SYDNEY MORNING HERALD (Nov. 3, 2007, 1:17 AM), smh.com.au/world/safety-woeful-admits-air-chief-20071103-gdri0f.html [perma.cc/64HC-AE9Y].

[15] *Id.*

[16] FSF Editorial Staff, *EU Lifts Ban on Flights by Indonesian Airlines*, FLIGHT SAFETY FOUND. (June 14, 2018), flightsafety.org/eu-lifts-ban-on-flights-by-indonesian-airlines/ [perma.cc/8NGG-FVRC].

[17] Peter Gelling, *European Union Lifts Ban on Indonesian Airlines*, N.Y. TIMES (July 15, 2009), nytimes.com/2009/07/16/business/global/16air.html [perma.cc/2JZS-N3FU]. In 2009, the European Union ban was amended to allow Garuda to fly to Europe. *Id.*

[18] *Indonesia Airlines Cleared to Fly to the United States*, ABC NEWS (Aug. 15, 2016, 3:49 AM), abc.net.au/news/2016-08-15/indonesia-airlines-cleared-to-fly-to-us/7736642 [perma.cc/9B3V-MX5U].

passengers have reached Indonesian courts,[19] so the legal infrastructure for resolving these claims remains largely untested. Results are, therefore, unpredictable. However, one thing seems clear: damages recovered have been low, particularly in comparison with the amounts of compensation available in other jurisdictions.[20] A likely explanation is that a reasonable proportion of cases are settled without litigation, with outcomes kept confidential. But if these settlements are reached in the shadow of Indonesia's legal infrastructure, with its limited jurisprudence relating to civil aviation accidents, then the prospect of victims recovering significant compensation is low.

## II. THE INDONESIAN LEGAL SYSTEM

The Indonesian legal system is a member of the "civil law" or "continental law" group of systems found in European countries such as France, Germany, and Holland and their former colonies or client states, as opposed to "common law" systems such as those of the United Kingdom and its former colonies or clients, including the United States.[21] At the time of its independence on August 17, 1945, Indonesia inherited Dutch colonial

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[19] *See, e.g.*, Saiful Bahri v. Boeing, Mahkamah Agung [Supreme Court] Nov. 28, 2017, Decision No. 1797 K/Pdt/2013, Direktori Putusan (Indon.), putusan3.mahkamahagung.go.id/direktori/putusan/feade1d3d3e0f3c720e20cb8d4a9fc05.html [perma.cc/RM3J-2QHN]; Karim v. Boeing, Pengadilan Tinggi Jakarta [Jakarta High Court] Nov. 7, 2014, Decision No. 557/Pdt/2014/PT.DKI (Indon.) (on file with Authors); Andre Adiputra v. Boeing, Pengadilan Negeri Jakarta Pusat [Central Jakarta District Court] June 2, 2010, Decision No. 186/PDT.G/2009/PN.JKT.PST, Direktori Putusan (Indon.), putusan3.mahkamahagung.go.id/direktori/download_file/4797bbb715c47741193a164ba500582a/pdf [perma.cc/BU8P-FF2Z]; *Ahli Waris Pramugari Gugat AdamAir Rp 2 Miliar [Stewardess' Heir Sues AdamAir for Rp 2 Billion]*, DETIK NEWS (Sept. 4, 2007), news.detik.com/berita/825444/ahli-waris-pramugari-gugat-adamair-rp-2-miliar [perma.cc/5M6R-DD3X] (citing Pengadilan Negeri Jakarta Barat [West Jakarta District Court] Registered Case No. 338/Pdt.G/2007 PN.JakBar (Sept. 4, 2007) (Indon.)); Suciptoyono v. Singapore Airlines, Pengadilan Negeri Jakarta Selatan [South Jakarta District Court] Feb. 5, 2008, Decision No. 908/Pdt.G/2007/PN.Jak.Sel (Indon.) (on file with Authors); *Indonesia Air Safety Profile*, AVIATION SAFETY NETWORK, aviation-safety.net/database/country/country.php?id=PK [perma.cc/Y2HD-UVBY] (providing data regarding Indonesian aviation accidents). Because Indonesian cases are usually referred to by number and not by the names of the parties, the Authors have created case names in this Article for ease of reference.

[20] Jack Linshi, *3 Charts Showing How Airlines Put a Price on Crash Victims' Lives*, TIME (Mar. 31, 2015, 3:52 PM), time.com/3763541/germanwings-plane-crash-settlement/ [perma.cc/9MGH-2FQD].

[21] JOHN HENRY MERRYMAN, THE CIVIL LAW TRADITION: AN INTRODUCTION TO THE LEGAL SYSTEMS OF WESTERN EUROPE AND LATIN AMERICA 1–3 (2d ed. 1969);

law as it then stood, subject to the constitutional exclusion of those parts inconsistent with independence and therefore considered repugnant.[22] Dutch law as it applied in the Netherlands East Indies (as Indonesia was known before 1945) was not identical to Dutch law in the Netherlands in 1945.[23] It was more limited in nature, as only those laws of the Netherlands that the Dutch considered appropriate to the East Indies were applied there.[24] Although many Dutch laws have since been replaced with new legislation, many have not, with estimates that around 380 Dutch laws remain on the books.[25] Indonesia's legal system today therefore remains largely derived from Dutch models, with its private law "backbone" still based on the mid-nineteenth century Dutch Civil Code (*Burgerlijk Wetboek voor Indonesie* or *Kitab Undang-Undang Hukum Perdata, KUHPerdata*).[26] The Indonesian Civil Code (Civil Code) continues to govern most civil transactions, including, as explained below, claims for losses caused by negligent acts or omissions.[27] However, as will be demonstrated, the Indonesian government has issued more detailed regulations to supplement some of the Civil Code's provisions, including in relation to aviation liability and consumer protection.

### A. Judicial Decisions

Before turning to discuss Indonesia's legal infrastructure for civil aviation liability and key Indonesian Supreme Court cases

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Irawan Soerodjo, *The Development of Indonesian Civil Law*, 4 Sci. Res. J., Sept. 2016, at 30, 30 (2016).

[22] For a detailed discussion of Indonesia's constitutions, including the original version of the 1945 Constitution, and its amendment in 1999–2002, see Simon Butt & Tim Lindsey, The Constitution of Indonesia: A Contextual Analysis 1–24 (2012).

[23] *See* M.B. Hooker, A Concise Legal History of South-East Asia 187–91 (1978).

[24] *Id.*

[25] Sunaryati Hartono, Analisa dan Evaluasi peratruan Perundang-Undangan Peninggalan Kolonial Belanda [Analysis and Evaluation of Laws and Regulations Left by Dutch Colonialism] (2015), bphn.go.id/data/documents/ae_peraturan_perundang-undangan_peninggalan_kolonial_belanda.pdf [perma.cc/7RM7-NPPE]; *60 Tahun Merdeka, Masih Ada 380-an Produk Hukum Kolonial* [*60 Years Independent, There Are Still 380 Colonial Laws*], Hukumonline (Aug. 23, 2005), hukumonline.com/berita/baca/hol13450/60-tahun-merdeka-masih-ada-380an-produk-hukum-kolonial/ [perma.cc/8XF4-QPFM].

[26] Wet van 31 Mei 1843, Stb. 1847, 23 (Neth.); Simon Butt & Tim Lindsey, Indonesian Law 78 (2018).

[27] *Infra* Part III.

that have applied it, it must be emphasized that *putusan* (judicial decisions) are generally not considered a source of law in Indonesia.[28] This is a consequence of Indonesia's adoption of a colonial form of the Dutch civil law system.[29] Thus, there is no formal system of precedent or independent body of judge-made law.[30] Instead, reliance is placed largely on *peraturan perundang-undangan* (legislation, including statutes and other regulations), usually called *hukum positif* (positive law), in determining applicable law.[31] To be sure, the *Mahkamah Konstitusi* (Constitutional Court) appears to have been developing what resembles a form of precedent, by tending to follow its own previous decisions in similar cases (although it has not always done this consistently).[32] However, the Constitutional Court's jurisdiction is strictly limited to determining the constitutionality of statutes and resolving disputes between state institutions and about election results.[33] It is not an appellate court and cannot directly alter the judgments of other courts.[34] Therefore, it cannot hear claims for aviation-related loss.[35]

While Indonesian judges may follow a previous decision from a higher or equal level court, with respect to the interpretation

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[28] BUTT & LINDSEY, *supra* note 26, at 73–76.

[29] *Id.*

[30] *Id.*

[31] *Id.* at 34–37; INT'L COMM'N OF JURISTS, INDONESIA AND THE RULE OF LAW: TWENTY YEARS OF 'NEW ORDER' GOVERNMENT 56–57 (Hans Thoolen ed., 1987). Regulatory sources of law in Indonesia include any and all instruments issued by executive and legislative branches in Indonesia, such as the *Undang-Undang Dasar* (1945 Constitution), *undang-undang* (statutes), *peraturan pemerintah* (government regulations), *peraturan presiden* (presidential regulations), *peraturan daerah* (regional regulations), or any other of the myriad types of executive branch *peraturan* (regulations) or *keputusan* (decisions), issued at all levels of bureaucracy. BUTT & LINDSEY, *supra* note 26, at 36–37, 37 tbl.2.1. The term "law" in Indonesia can in certain circumstances be understood as embracing many forms of bureaucratic decisions. *Id.* at 52. A so-called "hierarchy of laws," that is, a formal order of priority or ranking of some of these instruments, is available in Undang-Undang Nomor 12 Tahun 2011 Tentang Pembentukan Peraturan Perundang-undangan [UU No. 12 Tahun 2011] [Law of the Republic of Indonesia Number 12 of 2011 on the Making of Laws] ch. III art. 7(1) (Indon.), hukumonline.com/pusatdata/detail/lt4e573e59d0487/ [perma.cc/ZS5V-89W9].

[32] BUTT & LINDSEY, *supra* note 26, at 75–76; SIMON BUTT, THE CONSTITUTIONAL COURT AND DEMOCRACY IN INDONESIA 66–67 (2015); Dina Afrianty, *Child Marriage: Constitutional Court Finally Ditches Religious Arguments*, THE UNIV. OF MELB. (Jan. 24, 2019), indonesiaatmelbourne.unimelb.edu.au/child-marriage-constitutional-court-finally-ditches-religious-arguments/ [perma.cc/67D5-RW3Z].

[33] BUTT, *supra* note 32, at 5.

[34] *Id.* at 31–32.

[35] *Id.*

of any given provision, they are not usually required to do so.[36] While many Indonesian judges and courts appreciate the utility of providing consistent decisions in similar cases, most maintain that they retain absolute freedom to depart from those decisions.[37] Indeed, the Indonesian Supreme Court is notorious for not always keeping to its own decisions.[38] As a result, these decisions are more aptly described as examples of how the law has been applied—albeit often influential examples—rather than having formal binding force. This issue is discussed in more detail below.

In many civil law countries, including Indonesia, the writings of highly-regarded legal scholars, or "doctrine," can be considered a secondary source of law.[39] In the absence of a formal system of precedent, these writings are referred to by lawyers and judges in presenting and deciding cases much more regularly than in common law systems. Unfortunately, doctrine in Indonesia is notoriously undeveloped for most areas of law. Relatively few Indonesian scholars have produced high-quality work, which has forced lawyers to rely on writings on the Dutch Civil Code dating from colonial times, when an almost identical civil code was in force in Holland. This is the case even though very few Indonesian lawyers now speak Dutch. Another potential source of information is the doctrine surrounding the French Civil Code, much of which remains identical to the Indonesian Civil Code, but even fewer Indonesian lawyers speak French.

The consequent dearth of doctrine deprives the Indonesian legal system of a source of information considered in many civil law systems to be crucial to the operation and predictability of law.[40] Old Dutch doctrine rarely helps Indonesian lawyers resolve modern legal problems, including some of the specific issues raised by aviation accidents.[41] As discussed below, these include the types of damages available for mental anguish suf-

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[36] BUTT & LINDSEY, *supra* note 26, at 74–76.

[37] E. UTRECHT & MOH SALEH DJINDANG, PENGANTAR DALAM HUKUM INDONESIA [INTRODUCTION TO INDONESIAN LAW] 86, 204–05 (10th ed. 1983); SUDARSONO, PENGANTAR ILMU HUKUM [INTRODUCTION TO LAW] 86–87 (2001).

[38] BUTT & LINDSEY, *supra* note 26, at 74–78.

[39] This portion of the discussion of doctrine previously appeared in the Authors' book. *Id.* at 78.

[40] Gary Bell, *The Importance of Private Law Doctrine in Indonesia*, *in* INDONESIA: LAW AND SOCIETY 363–75 (Tim Lindsey ed., 2d ed. 2008); Mitchel de S.-O.-I'E. Lasser, *Judicial (Self-) Portraits: Judicial Discourse in the French Legal System*, 104 YALE L.J. 1325, 1374 (1995); JOHN P. DAWSON, THE ORACLES OF THE LAW 415 (1994).

[41] *See* Bell, *supra* note 40, at 364–65.

fered by the deceased and their relatives because of an aviation accident.[42]

Finally, another result of the adoption of the civil law tradition is that common law notions of "equity" to modify the application of statutes do not exist, and a system of judicial remedies (like equitable remedies in British common law) has never developed in Indonesia.[43] One result of this is that Indonesian judges often take a formalistic approach to regulations and are usually reluctant to excuse a procedural breach or formal error.[44]

### B. Liability for Death of Aircraft Passengers

The civil aviation industry in Indonesia is principally regulated by Law 1 of 2009 on Aviation (Aviation Law),[45] which contains provisions relating to compensation for death and injury of passengers and for loss or damage to property.[46] These provisions can apply even if the airline is not negligent.[47] Article 141 provides that an air carrier is liable to pay compensation for loss resulting from the death, permanent disability, or injury of a passenger caused by incidents on board an aircraft, during embarkation, or disembarkation.[48] Article 165 says the amount of compensation is to be determined by Ministerial Regulation.[49]

At time of writing, the relevant regulation was Minister of Transport Regulation 77 of 2011 on the Liability of Air Carriers (Ministerial Regulation 77).[50] Article 2 of Ministerial Regulation

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[42] *Infra* Section II.B.

[43] Russell Weaver, Comparative Perspectives on Remedies: Views from Four Continents 212–18 (2017).

[44] *See* Mirza Satria Buana, *Living* Adat *Law, Indigenous Peoples and the State Law: A Complex Map of Legal Pluralism in Indonesia*, pdfs.semanticscholar.org/d16c/32493838630a57bc81a579329aab8d34984c.pdf [perma.cc/WZF5-SNZC]; Simon Butt, *Judicial Reasoning and Review in the Indonesian Supreme Court*, 6 Asian J.L. & Soc'y 67, 93 (2019).

[45] *See generally* Undang-Undang Nomor 1 Tahun 2009 Tentang Penerbangan [UU No. 1 Tahun 2009] [Law of the Republic of Indonesia Number 1 of 2009 on Aviation] (Indon.), hukumonline.com/pusatdata/detail/28862/undangundang-nomor-1-tahun-2009?r=0&q=undang-undang%20Nomor%201%20Tahun%202009%20Tentang%20Penerbangan%20&rs=1847&re=2020 [perma.cc/UV8U-JYLM].

[46] *Id.* art. 141.

[47] *Id.*

[48] *Id.*

[49] *Id.* art. 165.

[50] Peraturan Menteri Perhubungan Nomor: PM.77 Tahun 2011 Tentang Tanggung Jawab Pengangkut Angkutan Udara [PM.77 Tahun 2011] [Minister of

77 restates that air carriers are liable to pay compensation for, inter alia, death, permanent disability, or injuries of passengers.[51] Article 3 fixes compensation at 1.25 billion rupiah (approximately $87,908.80 USD)[52] per person for the death of a passenger as a result of an incident on board an aircraft during a domestic flight, or when embarking or disembarking an aircraft.[53] This is a relatively small amount, even by Indonesian standards, particularly if the deceased is the breadwinner for a large family. Victims' families commonly complain about the unrealistically low rates of compensation available under this regulation and the difficulties of obtaining it from carriers and airplane manufacturers.[54]

The compensation available under Ministerial Regulation 77 is also about half the amount that *may* be available for death, injury, or loss resulting from an international flight. The use of the word "may" indicates there is some uncertainty about the precise amount that can be recovered for international flights. Indonesia ratified the 1999 Montreal Convention for the Unification of Certain Rules for International Carriage by Air (Montreal Convention)[55] through Presidential Regulation 95 of 2016

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Transport Regulation Number 77 of 2011 on the Liability of Air Carriers] (Indon.), jdih.dephub.go.id/assets/uudocs/permen/2011/pm._no._77_tahun_2011.pdf [perma.cc/4UBA-ERHJ].

[51] *Id.* art. 2.

[52] *Indonesian Rupiah to US Dollar Conversion*, XE, xe.com/currencyconverter/convert/?Amount=1,000,000,000&From=IDR&To=USD (last visited Nov. 5, 2020).

[53] PM.77 Tahun 2011 art. 3 (Indon.).

[54] *Families "Cheated of Boeing Crash Compensation"*, BBC NEWS (July 11, 2019), bbc.com/news/world-asia-48953892 [perma.cc/6DNH-LNUR]; Muhammad Nur Rochmi, *Keluarga Korban Akan Tuntut AirAsia* [*Victim's Family Will Sue AirAsia*], BERITAGAR (Dec. 2, 2015), beritagar.id/artikel/berita/keluarga-korban-akan-tuntut-airasia [perma.cc/N9AJ-VD92]; Rindi Nuris Velarosdela, *Puluhan Keluarga Korban JT 610 Tolak Pemberian Santunan dari Lion Air* [*Dozens of JT 610 Victim Families Refuse Compensation Given by Lion Air*], KOMPAS (Dec. 12, 2018), megapolitan.kompas.com/read/2018/12/12/16120491/puluhan-keluarga-korban-jt-610-tolak-pemberian-santunan-dari-lion-air [perma.cc/7F4N-Q9JA]; *Terlalu Kecil bila Ahli Waris Dapat Ganti Rugi Rp 1,25 M* [*Too Little if the Heirs Receive Compensation of 1.25 Billion Rupiah*], JPNN.COM (Jan. 7, 2015), jpnn.com/news/terlalu-kecil-bila-ahli-waris-dapat-ganti-rugi-rp-125-m [perma.cc/P3BK-BUJW]; Vincent Fabian Thomas, *Nestapa Keluarga Korban Lion Air Menuntut Pencairan Ganti Rugi* [*Sorrow of Families of Lion Air Victims Demanding Disbursement of Compensation*], TIRTO (Apr. 10, 2019), tirto.id/nestapa-keluarga-korban-lion-air-menuntut-pencairan-ganti-rugi-dlCZ [perma.cc/NGL7-XNYD].

[55] Convention for the Unification of Certain Rules for International Carriage by Air, May 28, 1999, 2242 U.N.T.S. 309 [hereinafter Montreal Convention].

(Presidential Regulation 95).[56] The Montreal Convention provides for compensation of up to 129,000 Special Drawing Rights (SDR),[57] or about 2.7 billion rupiah, in the event of death or injury.[58] Ministerial Regulation 77 and Presidential Regulation 95 thus contradict each other because they stipulate different amounts of compensation.[59] Can Indonesian passengers on international flights or their families demand the higher level of compensation under the Montreal Convention, or do the limits under Ministerial Regulation 77 apply? Unfortunately, there is no easy answer to this question, primarily because of Indonesia's unclear rules, first, regarding the status of international law within the Indonesian legal system, and, second, governing the resolution of conflicts between different laws.

As for the status of international law, Indonesia appears to be one of very few countries that does not clearly specify what is required for international law to become part of domestic law.[60] Some scholars argue that Indonesia is "monist" so that international law applies automatically;[61] others conclude that Indonesia is "dualist," pointing to the fact that principles of international law, including ratified treaties, are not, in practice, usually applied in Indonesia unless those principles—or, on

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[56] Peraturan Presiden Nomor 95 Tahun 2016 Tentang Pengesahan Konvensi Unifikasi Aturan-Aturan Tertentu Tentang Angkutan Udara International [Per-Pres No. 95 Tahun 2016] [Presidential Regulation 95 of 2016 on the Ratification Convention For the Unification of Certain Rules For International Carriage By Air] (Nov. 23, 2016) (Indon.), hukumonline.com/pusatdata/detail/lt585b4a35ef732/ [perma.cc/QF38-LF9C].

[57] *2019 Revised Limits of Liability Under the Montreal Convention of 1999*, ICAO, icao.int/secretariat/legal/Pages/2019_Revised_Limits_of_Liability_Under_the_Montreal_Convention_1999.aspx [perma.cc/3ZQN-SELH]; *Indonesian Rupiah (IDR) and Special Drawing Right (SDR) Currency Exchange Rate Conversion Calculator*, CoinMill, coinmill.com/IDR_SDR.html#SDR=128821 [perma.cc/5HQU-YKZ8]. "The SDR serves as the unit of account of the IMF and some other international organizations." *See Special Drawing Right (SDR)*, Int'l Monetary Fund (Mar. 24, 2020), imf.org/en/About/Factsheets/Sheets/2016/08/01/14/51/Special-Drawing-Right-SDR [perma.cc/R27H-R6H5]. Its value is based on a "basket" of currencies, including the U.S. dollar, the euro, the Japanese yen, the British pound and the Chinese renminbi. *See id.*

[58] Adhy Riadhy Arafah & Sarah Amalia Nursani, Pengantar Hukum Penerbangan Privat [Introduction to the Private Law of Aviation] 5 (2019).

[59] *Compare* PM.77 Tahun 2011 art. 3 (Indon.) (1.25 billion rupiah), *with* Per-Pres No. 95 Tahun 2016 art. 1 (Indon.) (approximately 2.7 billion rupiah).

[60] *See* Simon Butt, *The Position of International Law Within the Indonesian Legal System*, 28 Emory Int'l L. Rev. 1, 2–3 (2014).

[61] *Id.* at 6; Mochtar Kusumaatmadja & Etty R. Agoes, Pengantar hukum internasional [Introduction to International Law] 92 (2d ed. 2003).

some accounts, even the terms of the treaty in question—are reproduced in a domestic legal instrument.[62]

As for the resolution of conflicts, Indonesia has a "hierarchy of laws," contained in Law 12 of 2011 on Lawmaking (2011 Lawmaking Law),[63] and Indonesian lawyers usually agree that a lower-level law may not conflict with a higher law.[64] However, the precise operation of the hierarchy is unclear, because no Indonesian legal instrument, including the 2011 Lawmaking Law itself, stipulates how the hierarchy works or for what purposes it can be used.[65] For example, a statute (such as the Aviation Law) is higher on the hierarchy than a presidential regulation (the instrument used to ratify the Montreal Convention), but the precise authority of a ministerial regulation (the form of law establishing the 1.25 billion rupiah limit) is unclear, because it is not even mentioned in the hierarchy.[66]

As a result, at least four almost-equally possible alternatives emerge from the uncertain operation of international law and the hierarchy. The first is that the Montreal Convention does not apply at all, despite Presidential Regulation 95 purporting to ratify it. According to this view, Indonesian law requires not only a ratifying instrument but also an act of "transformation"—that is, some form of regulation that reproduces the terms of the Montreal Convention and enacts them as "law."[67] Presidential Regulation 95 does not do this; it simply declares that Indonesia ratifies the Montreal Convention.[68] Until further domestic regulation embodies the terms of the Montreal Convention, it has no binding force under Indonesian law, and the limits of Ministerial Regulation 77 apply to all domestic and international flights.

The second alternative leads to the same result. Here, Presidential Regulation 95 should be invalid, because Ministerial Regulation 77 derives its authority from a statute—the Aviation Law—which ranks higher on the hierarchy than a presidential regulation.[69] Because the statute delegates authority to the Minister to issue the regulation, the regulation itself is deemed to

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[62] DAMOS DUMOLI AGUSMAN, HUKUM PERJANJIAN INTERNASIONAL: KAJIAN TEORI DAN PRAKTIK INDONESIA [THE LAW OF INTERNATIONAL AGREEMENTS: A THEORETICAL AND PRACTICAL STUDY OF INDONESIA] 473 (2010).

[63] UU No. 12 Tahun 2011 art. 7 (Indon.).

[64] *See* BUTT & LINDSEY, *supra* note 26, at 36.

[65] *See id.* at 36–37 (discussing the hierarchy of laws in detail).

[66] *See id.*

[67] *See* Butt, *supra* note 60, at 11.

[68] *See* PerPres No. 95 Tahun 2016 art. 1 (Indon.).

[69] *See* BUTT & LINDSEY, *supra* note 26, at 36.

have the same legal authority as a statute, which clearly trumps a presidential regulation according to the hierarchy.[70] Ministerial Regulation 77 would thus apply to both domestic and international air travel liability, despite Indonesia's ratification of the Montreal Convention.[71]

The third alternative presumes both that the Montreal Convention was introduced into Indonesian law through its ratification by presidential regulation and that Ministerial Regulation 77 has force of law, but not a ranking equivalent to a statute. Here, Presidential Regulation 95 (presidential regulations are mentioned on the hierarchy) must prevail over Ministerial Regulation 77 (ministerial regulations are not specifically mentioned).[72] Another potential justification for Presidential Regulation 95 prevailing over Ministerial Regulation 77 is that the president occupies a higher office than a minister and, indeed, can unilaterally appoint and dismiss ministers.[73] Under this reasoning, laws made by the president should trump those made by ministers. The higher compensation limits available under the Montreal Convention would therefore apply to international air travel liability.

The fourth alternative leads to a similar result as the third. The Montreal Convention was brought into Indonesian law through ratification by Presidential Regulation 95, but there is, in fact, no conflict, at least in relation to international flights. This is because the Montreal Convention appears to apply only to international routes, whereas Ministerial Regulation 77 does not distinguish between domestic and international routes.[74] This would suggest that the Montreal Convention overrides Ministerial Regulation 77 in relation to accidents arising from international flights, but Ministerial Regulation 77 remains in force to impose liability limits in relation to accidents on domestic routes.

The last alternative is favored by many Indonesian lawyers, and in two decisions, the Indonesian courts have followed the interpretation to resolve compensation claims related to inter-

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[70] *See id.*

[71] *See id.* at 57–60 (detailing Indonesia's complex and unclear system for resolving conflicts between laws of different types).

[72] *See id.* at 37.

[73] Koichi Kawamura, *Is the Indonesian President Strong or Weak?* 45 (Inst. Dev. Econ., Discussion Paper No. 235, 2010).

[74] *Compare* Montreal Convention, *supra* note 55, art. 1, *with* PM.77 Tahun 2011 art. 1 (Indon.).

national travel.[75] However, these decisions only applied the predecessor of the Montreal Convention, the 1929 Warsaw Convention for the Unification of Certain Rules Relating to International Carriage by Air (Warsaw Convention),[76] Additionally, in another case, the Indonesian Supreme Court declined to apply it.[77] As indicated above, these decisions have no binding authority.[78] This means that an Indonesian court could adopt any of the alternative understandings of the operation of Indonesia's hierarchy of laws and its interaction with the Montreal Convention in a future case.

### C. Additional Compensation

Articles 141(3) and 176 of the Aviation Law give heirs recourse through the civil courts to seek additional compensation from carriers for the death of family members in an aircraft accident.[79] Article 166 of the Aviation Law also allows the carrier and a passenger or heir to enter into a specific agreement to determine a higher amount of compensation than specified by Ministerial Regulation 77.[80]

Article 184 additionally imposes liability on *setiap orang* (any person) who operates airplanes for loss suffered by third parties

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[75] Suciptoyono v. Singapore Airlines, Mahkamah Agung [Supreme Court] Apr. 26, 2011, Decision No. 1517 K/Pdt/2009, Direktori Putusan, at 5, 8 (Indon.), putusan3.mahkamahagung.go.id/direktori/download_file/5588556bc6b8c1df3119ac8fc936af93/pdf [perma.cc/4JNA-UNQ6]; Dono Indarto v. Emirates Airlines, Mahkamah Agung [Supreme Court] Apr. 24, 2012, Decision No. 2094 K/Pdt/2010, Direktori Putusan (Indon.), putusan3.mahkamahagung.go.id/direktori/download_file/11ea5d4b932bae26977d313933363136/zip [perma.cc/EGR5-NHTK]. The *Dono Indarto* case involved loss of a gold cane, not passenger death. *Dono Indarto*, Supreme Court Decision No. 2094 K/Pdt/2010.

[76] *See generally* Convention for the Unification of Certain Rules Relating to International Carriage by Air, Oct. 12, 1929, 49 Stat. 3000 [hereinafter Warsaw Convention]. The Warsaw Convention was replaced by the Montreal Convention in 1999, but Indonesia did not accede to the latter until March 20, 2017. *Convention for the Unification of Certain Rules for International Carriage by Air Done at Montreal on 28 May 1999*, ICAO, icao.int/secretariat/legal/List%20of%20Parties/Mtl99_EN.pdf [perma.cc/V9LL-EHPR].

[77] Garuda v. Eunike Mega Apriliana, Mahkamah Agung [Supreme Court] Sept. 27, 2007, Decision No. 970K/PDT/2002, Direktori Putusan (Indon.), putusan3.mahkamahagung.go.id/direktori/putusan/f92a72abbec0b72f6470ee5dc8216f6f.html [perma.cc/SD2K-QER7] (finding no fault with lower court's choice not to apply the Warsaw Convention in a case relating to compensation for lost luggage).

[78] *See supra* Section II.A.

[79] UU No. 1 Tahun 2009 arts. 141(3), 176 (Indon.).

[80] *Id.* art. 166.

as a result of the "operation of the airplane, an accident of the airplane or the falling of other objects from the airplane being operated."[81] The compensable loss here is *kerugian nyata yang dialami* (actual experienced loss).[82] In the Authors' view, the application of this provision may be limited by use of the word *orang* (person), which implies a natural person, allowing plaintiffs to pursue pilots or other individuals responsible for operating the plane but not airlines and manufacturers, which are companies.[83] The compensation available to third parties under Article 184 also appears to be limited to 500 million rupiah.[84]

The Aviation Law is silent on the liability of the manufacturer of an aircraft for injury or death of passengers. In fact, there is—to the Authors' knowledge—no law dealing specifically with the liability of aircraft manufacturers for passenger death. However, an action for liability may be brought against an aircraft manufacturer, carrier, or any other party held to have caused the fatality in the civil courts under the general "unlawful act" provisions of the Civil Code, which provide grounds similar to tortious liability or negligence in common law jurisdictions.[85] A related claim might also be brought under Indonesia's consumer protection law.[86] Discussion now turns to both of these avenues, beginning with the latter.

### D. Consumer Protection Law

A person who suffers damage as a result of an air crash in Indonesia can seek compensation under the Law 8 of 1999 on Consumer Protection (Consumer Protection Law).[87] This sets out the rights and duties of consumers and businesses dealing in consumer goods or services and imposes obligations on businesses to compensate consumers for breaches.[88]

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[81] *Id.* art. 184(1).

[82] *Id.* art. 184(2).

[83] *See id.* art. 184.

[84] *See id.* art. 184(3) (referencing the Ministerial Regulation); PM. 77 Tahun 2011 art. 14 (Indon.).

[85] Burgerlijk Wetboek [BW] [Civil Code] arts. 1365–67 (Indon.), refworld.org/pdfid/3ffbd0804.pdf [perma.cc/6VGW-XGVL].

[86] Undang-Undang Nomor 8 Tahun 1999 Tentang Perlindungan Konsumen [UU No. 8 Tahun 1999] [Law of the Republic of Indonesia Number 8 of 1999 on Consumer Protection] (Indon.), hukumonline.com/pusatdata/detail/447/ [perma.cc/U39D-EX77].

[87] *Id.*

[88] *See id.*

*Jasa* (services) are defined in Article 1(5) of the Consumer Protection Law as "any service in the form of work or conduct that is prepared for the public to be used by consumers."[89] This would seem to cover air transport services. *Konsumen* (consumer) is defined in Article 1(2) as "any person who uses a good and/or service that is available to the public, whether in his or her own interests or the interests of his or her family, another person or any other living creature, but not for trade."[90] This would likely cover most air passengers. *Pelaku usaha* (business)[91] is defined in Article 1(3) as "any natural person or business body, whether taking the form of a legal entity or not, established, located or performing activities in the jurisdiction of the Republic of Indonesia, either on its own or jointly through an agreement regulating business activities in various economic fields."[92] This would likely cover Indonesian air carriers and could even cover non-Indonesian carriers and manufacturers, depending on the nature of their business activities in Indonesia.

The Consumer Protection Law establishes various consumer rights, including: (1) rights to safe goods or services;[93] (2) honest, clear, and correct information about the condition of goods or services;[94] and (3) compensation or exchange if the goods or services received differ from those agreed to or are of unacceptable quality.[95] Among other things, Article 8 prohibits businesses from offering goods or services that do not meet regulatory standards,[96] or are not in accordance with the stipulated quantity/weight or the conditions, guarantees, or other specifications set out on the label or in explanations of the good or service provided.[97] There are also prohibitions on advertising that is false or misleading,[98] or that does not include information about dangers associated with using the good or service.[99]

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[89] *Id.* art. 1(5).

[90] *Id.* art. 1(2).

[91] A literal translation for *pelaku usaha* is "one who carries out an enterprise"; however, the term is commonly used to refer to businesses.

[92] *Id.* art. 1(3).

[93] *Id.* art. 4(a).

[94] *Id.* art. 4(c).

[95] *Id.* art. 4(h).

[96] *Id.* art. 8(1)(a).

[97] *Id.* art. 8(1)(b)–(d).

[98] *Id.* art. 10.

[99] *Id.* art. 17(d).

The obligation upon businesses to "provide compensation or damages" for loss resulting from breaches of their duties in the provision of commercial services appears in Article 7(f) of the Consumer Protection Law.[100] Article 19 also makes businesses responsible to compensate for any damage or loss suffered by consumers using the services provided by the enterprise[101] and requires this compensation to be paid within seven days of the relevant transaction.[102] Article 19(2) states that compensation can include medical care or a payment.[103] Importantly, the burden of proof falls on the enterprise to demonstrate that it was not at fault in a claim for damages made under Article 19.[104]

Under Article 23, businesses that refuse or ignore a request for compensation may be taken to the general courts or a *Badan Penyelesaian Sengketa Konsumen* (BPSK) (Consumer Resolution Dispute Body).[105] These BPSKs offer mediation, conciliation, and arbitration services and may issue administrative sanctions for violations of Articles 19(2) and 19(3) of up to 200 million rupiah.[106] Article 45 provides that the plaintiff chooses whether to use a BPSK or the courts.[107] Choosing a BPSK does not release the business from potential criminal liability but does preclude the plaintiff from commencing court action until the BPSK process has concluded.[108] Court action may be taken by a consumer, his or her heirs, a group of consumers, a consumer protection non-government organization, the government, or a government agency.[109]

Violation can also result in a criminal penalty and an accompanying order for compensation.[110] Specifically, if held criminally liable for an offense under the Consumer Protection Law, a business may be required to: (1) destroy certain goods; (2) publicly announce the judgment; (3) pay compensation; (4)

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[100] *Id.* art. 7(f).
[101] *Id.* art. 19(1).
[102] *Id.* art. 19(3).
[103] *Id.* art. 19(2).
[104] *See id.* art. 19(5).
[105] *See id.* art. 23.
[106] *Id.* art. 60(1), (2).
[107] *Id.* art. 45(1), (2).
[108] *Id.* art. 45(3), (4).
[109] *Id.* art. 46(1).
[110] Violations of Articles 8, 9, 10, 13(2), 15, 17(1)(a)–(c) and (e), 17(2), and 18 are punishable by up to five years' imprisonment or a fine of 2 billion rupiah. *Id.* art. 62(1). A breach of Articles 11, 12, 13(1), 14, 16, and 17(1)(d), (f) may be punished with two years in prison or a fine of 500 million rupiah. *Id.* art. 62(2).

cease activities that result in losses to consumers; (5) take goods out of circulation; or (6) surrender a license to operate.[111]

Importantly, any finding of criminal liability for breach of the Aviation Law or the Consumer Protection Law may also be used to pursue a civil wrongful act claim under Article 1365 of the Civil Code.[112] It can also be used to pursue compensation for loss as part of criminal proceedings in the same trial.[113]

Discussion now turns to Article 1365.

### E. Civil Liability For Negligence

If an airline was negligent, as indicated above, liability will not be limited to the amounts of compensation specified in Ministerial Regulation 77; court action seeking damages can also be taken.[114] In determining whether a claim for negligence exists at Indonesian law, the first point of reference is usually the Civil Code. Article 1365 of the Civil Code states that a person who causes loss to another person by means of an unlawful act must, because of his or her fault in causing the loss, compensate for that loss.[115] Also relevant is Article 1366, which is related to Article 1365.[116] It provides that every person is responsible, not only for loss caused by their acts, but also for loss caused by negligence or lack of care.[117] Together, these two provisions provide the primary legal basis for what might loosely be called "Indonesian tort law," with Article 1365 applying to acts causing loss and Article 1366 applying to negligent omissions.[118]

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[111] *Id.* art. 63.

[112] BW art. 1365 (Indon.).

[113] Undang-Undang No. 8 Tahun 1981 Tentang, Kitab Undang-Undang Hukum Acara Pidana [UU No. 8 Tahun 1981] [Law No. 8 of 1981 Criminal Procedure Law Book] art. 98 (Indon.), kpk.go.id/images/pdf/Undang-undang/uu_8_1981.pdf [perma.cc/H4UL-HLSC].

[114] Ridha Aditya Nugraha, *Why Lion Air Must Compensate Victims Immediately*, Jakarta Post (Dec. 4, 2019, 10:17 AM), thejakartapost.com/academia/2019/12/04/why-lion-air-must-compensate-victims-immediately.html [perma.cc/84P5-T36A].

[115] BW art. 1365 (Indon.).

[116] *Id.* art. 1366.

[117] Portions of Section II.E previously appeared in the Authors' book. Butt & Lindsey, *supra* note 26, at 78, 309–11 (internal citations and quotations omitted).

[118] *See id.* (citing Rosa Agustina, Suharnoko, Hans Nieuwenhuis & Jaap Hijma, Hukum Perikatan [Contract Law] 6–7 (2012); Chairuddin Ismail, Direksi dan Komisiaris dalam Perbuatan Melawan Hukum oleh Perseroan Terbatas: Konstruksi Hukum, Tanggung Jawab dan Perlindungan Hukum Pihak Ketiga [The Board of Directors and Commissioners in Unlawful Acts

Compensation for breach of Article 1365 or 1366 can take the form of: (1) money; (2) restoration to the plaintiff's initial position; (3) a declaration that the act was unlawful; (4) prohibition of the performance of a particular act; or (5) an order requiring the defendant to perform a particular act.[119] As discussed below, damages may be awarded for both "material" and "immaterial" loss, including for intangible personal injuries.[120]

Article 1365 claims are very common in Indonesian courts and, in fact, dominate their civil workload. As this suggests, the provision has been widely used in different contexts as a catch-all provision to remedy a variety of gaps in the Civil Code. It has, for example, been used by plaintiffs to claim damages in nuisance, defamation, and land disputes. It has also enabled plaintiffs to claim compensation for loss caused by the criminal acts of defendants.

### *1. Meaning of "Unlawful Act"*

The flexibility and consequent frequent use of Article 1365 is a result of the Civil Code not defining "unlawful act," which has left its meaning and interpretation to doctrine and judicial practice. As mentioned, indigenously-produced legal doctrine is generally weak in Indonesia, and this is certainly true for the Civil Code. This means that Indonesian lawyers are forced to look outside Indonesia for explanation of Civil Code provisions—usually to Dutch writing or decisions applying it, dating from colonial times, when the old Civil Code was still in force in Holland. More specifically, doctrine written by Indonesian scholars will often draw on the writings of Dutch scholars and the decisions of Dutch courts, particularly the Hoge Raad der Nederlanden (Dutch Supreme Court). To understand what "unlawful

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BY A LIMITED COMPANY: LEGAL CONSTRUCTION, RESPONSIBILITY AND THIRD PARTY LEGAL PROTECTION] 45 (2012)).

[119] ROSA AGUSTINA, PERBUATAN MELAWAN HUKUM [UNLAWFUL ACTS] 12 (2003). There is no specific article in the Civil Code that fixes the type of compensation available for breach of Articles 1365 or 1366. *See generally* BW (Indon.). Agustina states the forms of compensation generally available are based on custom and court decisions, many of which refer to Article 1371 of the Civil Code. AGUSTINA, *supra*, at 51. That provision deals with compensation available for bodily injuries, which includes "expenses incurred in the recovery" as well as other compensation. BW art. 1371 (Indon.). It adds that assessment of compensation is "based upon status and the financial condition of the individuals involved, and upon the circumstances," and, importantly, that this principle applies to assessment of all "damage resulting from any misdemeanor committed against any individual." *Id.*

[120] AGUSTINA ET AL., *supra* note 118, at 5.

act" means for the purposes of a claim under Article 1365 of the Civil Code, Indonesian courts therefore have had little choice but turn to century-old interpretations provided by Dutch courts.

For example, almost all Indonesian doctrine addressing the unlawful act concept discusses the *Singer Naaimachine* case, heard in the Dutch Supreme Court in 1905. Here, the defendant sold refurbished sewing machines badged as Singer products when they were not Singer products. The plaintiff complained that the defendant had used the Singer name without permission and argued that this was unlawful within the meaning of Article 1401 of the Dutch Civil Code (the Dutch equivalent of Article 1365 of the Indonesian Civil Code). The Court rejected the claim because the plaintiff could not establish that use of the Singer name breached a written law. This case is often cited as indicating the narrow interpretation of the unlawful act concept—that is, for an act to be unlawful, it must breach a law applicable at the time the act was performed.

Another case in which the narrow approach was adopted that is commonly cited in Indonesia is the so-called *Zutphen* case. In this case, a property owner who lived in a multiple occupancy dwelling had, due to damaged pipes and failure to turn off taps, flooded the residence of the person who lived below, causing significant damage. An unlawful act claim was brought but failed, despite the plaintiff's loss, because the plaintiff could not identify a statute requiring the upper floor resident to turn off those taps.

As much of the Indonesian doctrine points out, Indonesia's courts no longer limit themselves to this narrow interpretation. They now usually interpret unlawful far more broadly, to include acts that are merely inappropriate or immoral when judged by community standards, even if they are not explicitly prohibited by a written law. This very broad approach is usually said in Indonesia to ultimately derive from *Lindebaum v. Cohen*, a 1919 decision of the Dutch Supreme Court in which Article 1401 of the Dutch Civil Code was applied.[121] According to an Indonesian scholarly account, this case involved two competing printing companies, one owned by Cohen and the other by

[121] BUTT & LINDSEY, *supra* note 26, at 309–10 (citing H.R. 31 Januari 1919, NJ 1919, 161 m.nt Molensgraaf (Lindenbaum/Cohen) (Neth.), arresten.eu/verbintenissenrecht/hr-31-01-1919-nj-1919-161-lindebaumcohen/ [perma.cc/JN8B-WUBW]).

Lindebaum.[122] Cohen had convinced Lindebaum's employee to provide him with a copy of Lindebaum's customer list so that he could attempt to approach them. Lindebaum was successful in the Dutch Supreme Court, which held that Cohen's act had been inappropriate in the circumstances and that this was enough to bring the act within Article 1401. *Lindenbaum* is seen as a breakthrough case because, as mentioned, Article 1401 had previously been narrowly interpreted to require a breach of statutory or other legal obligations.

The *Lindenbaum* approach is the one that Indonesian courts now often use to establish a broad ambit of civil liability using Article 1365. This was confirmed by the government's *Badan Pembangunan Hukum Nasional* (National Legal Development Institute) in 1993, when it sought to summarize the wide reach of this provision as understood in Indonesian judicial decisions and legal practice. It stated that that an unlawful act is committed if the act conflicts with: (1) another person's rights; (2) the legal obligations of the perpetrator; (3) morality or appropriate behavior; or (4) what is required for societal mixing with respect to people and property.

### *2. Damages*

Damages at Indonesian law are compensatory rather than punitive. As mentioned, compensation for breach of Indonesian Civil Code Article 1365 or 1366 can be in the form of: (1) money; (2) restoration to the plaintiff's initial position;[123] (3) a declaration that the act was unlawful; (4) prohibition of the performance of a particular act;[124] or (5) an order requiring the defendant to perform a particular act.[125]

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[122] *Id.* at 310 (referring to *Perbuatan Melawan Hukum dan Wanprestasi sebagai Dasar Gugatan* [*Unlawful Acts and Default as a Basis for Lawsuits*], HUKUMONLINE (Sept. 6, 2001), hukumonline.com/berita/baca/hol3616/perbuatan-melawan-hukum-danwanprestasi-sebagai-dasar-gugatan/ [perma.cc/W7SA-5GUL]). The Authors have not been able to obtain a copy of the decision itself; to their knowledge, it is not available in any reported form in Indonesia.

[123] *E.g.*, Siti Hardiyanti Rukmana v. PT Berkah Karya Bersama, Mahkamah Agung [Supreme Court] Oct. 2, 2013, Decision No. 862 K/Pdt/2013, at 96, Hukum (Indon.), hukumonline.com/pusatdata/detail/lt553f361ceff84/ [perma.cc/W25X-GF6V].

[124] *E.g.*, Jafi Alzagladi v. Wa Samila, Pengadilan Negeri Ambon [Ambon District Court] Jan. 23, 2020, Decision No. 131/Pdt.G/2019/PN, Direktori Putusan (Indon.), putusan3.mahkamahagung.go.id/direktori/putusan/72894bf883f014c3f89236a474ffd3d6.html [perma.cc/GGQ8-VGWK].

[125] *E.g.*, Soeharto v. Time Inc. Asia, Mahkamah Agung [Supreme Court] Aug. 30, 2007, Decision No. 3215 K/PDT/2001, at 34, Hukum (Indon.), hukum.un-

Under Article 1250 of the Civil Code, an order for *ganti rugi*—that is, monetary compensation for loss or damages—would normally include losses incurred because of the wrongful act, plus interest.[126] Under Article 1250 of the Civil Code, interest may be paid from the date of filing at a maximum rate of 6% per annum, although it is rarely ordered.[127]

The sum of damages is calculated by the court at the hearing and stated in the judgment in two parts: tangible or material loss, and intangible or immaterial loss (if applicable). Material loss is any measurable financial loss—for example, medical expenses and loss of income. Immaterial loss usually relates to stress-related illnesses or conditions that are directly attributable to the conduct of the defendant.

Whether damages for immaterial losses are available in relatively minor cases is somewhat unclear under Indonesian law, but they are certainly usually available in serious cases, depending on the circumstances. The Indonesian Supreme Court has, for example, awarded damages for immaterial losses in cases involving death and serious injury.[128] The amount of immaterial damages awarded is a matter [of discretion] for the presiding judges,[129] although it is open to the plaintiff to suggest an amount and put forward arguments to support it. The general yardstick appears to be appropriateness in the circumstances, a test usually understood as derived from Article 1371 of the Civil Code, which says that damages are to be assessed by reference to the position and means of the parties, and in accordance with the situation.

Where the victim suffers mental illness because of the defendant's conduct, the court is to consider the seriousness of the mental burden borne by the victim, the circumstances in which the illegal act occurred, and the situation and condition of both the victim and the perpetrator. For example, in one case decided by the High Court of Banten, a plaintiff was awarded five billion rupiah for depression caused by the defendant's illegal

srat.ac.id/ma/3215-k-pdt-2001.pdf [perma.cc/W3DZ-EW4Y] (ordering the defendant to publish an apology to the plaintiff).

[126] BW art. 1250 (Indon.).

[127] *Id.*

[128] BUTT & LINDSEY, *supra* note 25, at 310 (citing Soegijo v. Walikota Kepala Daerah Tingkat II Kota Maya Blitar, Mahkamah Agung [Supreme Court] May 23, 1970, Decision No. 650/PK/Pdt/1994 (Indon.)).

[129] *Id.* (citing Soegijono v.Walikota Kepala Daerah Tingkat II Kata Madya Blitar, Mahkamah Agung [Supreme Court] May 23, 1970, Decision No. 601K/Sip/1968 (Indon.)).

act.[130] In another case, the Manado District Court awarded only five million rupiah for immaterial damages after a dog bit a customer's face, lips, and arms at a pet shop.[131] The Court reduced this from the one billion rupiahs claimed by the plaintiff on the grounds that the amount was excessive given that the defendant was a small business holder with limited means.[132]

## III. JUDICIAL DECISIONS ON AIRCRAFT PASSENGER INJURIES

This Article now turns to look specifically at Indonesian judicial decisions that involve injuries to aircraft passengers or deaths resulting from aviation accidents. Before doing so, some explanation about case selection is required. The Authors have obtained most of the decisions discussed from a detailed search of the website of the Indonesian Supreme Court, which, as mentioned, is Indonesia's final appeal court in non-constitutional matters.[133] From 2007, the Indonesian Supreme Court began to publish many of its own decisions and those of the courts it administers on its website.[134] "In the intervening decade or so, the Court claims to have uploaded almost 100,000 Supreme Court judgments, and almost 2 million judgements from other Indonesian courts."[135] This website is, however, unreliable, incomplete, and not all decisions on it are downloadable.[136] The

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[130] *Id.* (citing Yossy Binti Carkiyah v. Tan Sing Hock, Pengadilan Tinggi Banten [Banten High Court] Dec. 16 2015, Decision No. 116/Pdt/2015/PT BTN, Direktori Putusan (Indon.), putusan3.mahkamahagung.go.id/direktori/download_file/cb9ef26102d87a728fd14f5a203b713a/pdf [perma.cc/AU5A-G8NL]; Anita Kolopaking v Sinthya Dhewi, Pengadilan Negeri Jakarta Selatan [South Jakarta District Court] Oct. 7, 2015, Decision No. 248 Pdt.G/2015/PN Jkt Sel, Direktori Putusan (Indon.), putusan.mahkamahagung.go.id/putusan/downloadpdf/b64045224838c2cebde915c7334ee243/pdf [perma.cc/59VH-W2CM]).

[131] Engelin Sumendap v. Haryanto Christian, Pengadilan Negeri Manado [Manado District Court] Mar. 30, 2015, Decision No. 236/Pdt.G/2014/PN.Mnd, Hukum (Indon.), hukumonline.com/pusatdata/detail/ma314eec224f9e4?r=0&q=Decision%20No.%20236/Pdt.G/2014/PN.Mnd&rs=1847&re=2020 [perma.cc/N7QP-V4LA].

[132] *Id.*

[133] Butt, *supra* note 44, at 70; *see also* DIREKTORI PUTUSAN MAHKAMAH AGUNG REPUBLIK INDONESIA [DIRECTORY OF DECISIONS OF THE SUPREME COURT OF INDONESIA] putusan3.mahkamahagung.go.id (last visited Nov. 4, 2020).

[134] Butt, *supra* note 44, at 92.

[135] *Id.* The Supreme Court is required to provide public access to its decisions. Undang-Undang Nomor 14 Tahun 1985 Tentang Mahkamah Agung [UU No. 14 Tahun 1985] [Law Number 14 of 1985 on the Supreme Court] (Indon.), hukumonline.com/pusatdata/detail/3781/ [perma.cc/24PD-LSWD].

[136] Butt, *supra* note 44, at 92.

Authors therefore also approached the Court itself and lawyers involved in aviation litigation to obtain copies of decisions that do not appear on the Court's website or appear but are not accessible.[137]

In this way, the Authors were able to obtain judgments relating to four fatal air crashes that resulted in litigation about carriers' liability and one dealing with aircraft manufacturer liability (Boeing). Some of these involved multiple proceedings—six in relation to an AirAsia crash, for example. Other relevant Indonesian judicial decisions may exist but are not publicly accessible. Given the limited access to cases, this analysis should be taken only to indicate broadly how Indonesian courts have handled cases involving compensation for death on an aircraft: the Authors cannot claim to provide an exhaustive assessment here.

Three further caveats are necessary regarding the usefulness of these cases in describing judicial approaches to aviation cases. First, it is important to understand that the legal reasoning provided in Indonesian judgments is often very limited.[138] Like the decisions of courts in many civil law countries, most Indonesian judicial decisions are not particularly instructive or even self-contained. One consequence is that in Indonesia, many, if not most, decisions contain insufficient information to enable another court to follow them in similar subsequent cases. This is true even of Indonesian Supreme Court decisions: while the formal document containing the decision might run from five to 200 pages or more, the judgment itself is usually only one or two pages, sometimes only two or three paragraphs. The reasoning is often scant—sometimes just a paragraph—and often fails to clearly outline the relevant law or how the court applied it. The legal interpretation process and competing arguments are rarely disclosed, let alone discussed in any detail. The bulk of each decision usually comprises formalities such as the parties' identities, the procedural history, a list of evidence, and a verbatim reproduction of the parties' submissions. Appellate judgments usually include within them the entirety of all earlier judgments in the same case, creating an often unwieldy and confusing document.[139]

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[137] The Authors thank Miftah Fadhli for assistance in locating many of these cases.

[138] Observations in this paragraph drawn from Butt, *supra* note 44, at 68–93.

[139] *See, e.g.*, Adiputra v. Boeing, Pengadilan Tinggi Jakarta [Jakarta High Court] Oct. 20, 2016, Decision No. 462/PDT/2016/PT DKI, Direktori Putusan

Second, the quality of Indonesian judicial decisions—even those of the Supreme Court—is questionable.[140] Indonesian lawyers complain that the quality of more recent jurisprudence has noticeably declined, compared even with that of the 1960s, 1970s, and 1980s, when the Indonesian judiciary was subservient to a military-backed authoritarian government.[141] This might help explain why many Supreme Court judgments, and even modern Indonesian legal textbooks, appear to continue to rely heavily on decades-old "precedents," despite those being arguably distant from modern legal needs.

Finally, as explained earlier, Indonesian Supreme Court decisions are not necessarily binding.[142] Certainly, Indonesian first instance and appeal courts do generally consider selected, prominent decisions of the Supreme Court (*yurisprudensi* or jurisprudence, occasionally collected and published in hard copy or online by the Court) to be highly persuasive and are often reluctant to depart from a line of consistent Supreme Court decisions on a particular point of law or interpretation.[143] Lower courts are more likely to follow these decisions if the Supreme Court has stated that a particular decision should generally be followed, as it sometimes does in practice notes known as *surat edaran* (circular letters).[144] However, opinions differ in Indone-

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(Indon.), putusan3.mahkamahagung.go.id/direktori/download_file/11e9952415a6b6e8b4f5303232393432/pdf [perma.cc/N5AJ-R5QE].

[140] SIMON BUTT, JUDICIAL REVIEW IN INDONESIA: BETWEEN CIVIL LAW AND ACCOUNTABILITY? A STUDY OF CONSTITUTIONAL COURT DECISIONS 2003–2005, at 166–69, 265–72 (2007) (explaining that some have argued the Constitutional Court issues better-reasoned decisions than other Indonesian courts, but even its decisions can be illogical, poorly structured, or difficult to comprehend).

[141] *Banyak Putusan Kasus Korupsi di MA Tanpa Pertimbangan Jelas* [*Many Decisions on Corruption Cases in the Supreme Court Are Without Clear Legal Reasoning*], HUKUMONLINE (Aug. 27, 2010), hukumonline.com/berita/baca/lt4c76a39a345b5/banyak-putusan-kasus-korupsi-di-ma-tanpa-pertimbangan-jelas/ [perma.cc/26H6-6A7Z]; *see generally* SEBASTIAAN POMPE, THE INDONESIAN SUPREME COURT: A STUDY OF INSTITUTIONAL COLLAPSE (2005).

[142] *See supra* Section II.A.

[143] PAULUS EFFENDIE LOTULUNG, PERANAN YURISPRUDENSI SEBAGAI SUMBER HUKUM [THE ROLE OF JURISPRUDENCE AS A LEGAL SOURCE] 6 (1997); BADAN PEMBINAAN HUKUM NASIONAL [NATIONAL LAW DEVELOPMENT AGENCY], LAPORAN PENELITIAN TENTANG PENINGKATAN YURISPRUDENSI SEBAGAI SUMBER HUKUM [RESEARCH REPORT ON THE IMPROVEMENT OF JURISPRUDENCE AS A LEGAL SOURCE] (1993).

[144] *See* Surat Edaran Mahkamah Agung Nomor 2 Tahun 1972 Tentang Pengumpulan Yurisprudensi [Supreme Court Circular Letter 2 of 1972 on Jurisprudence Compilations] ¶ 5 (May 19, 1972) (Indon.), bawas.mahkamahagung.go.id/bawas_doc/doc/sema_no_2_tahun_1972.pdf [perma.cc/CM9N-ZGH7]

sia about whether judges *must* follow previous decisions and, relatedly, whether *yurisprudensi* is an official source of law. Formally, Indonesian court decisions bind only the parties involved in the case relating to that decision.[145] As one Indonesian scholar has explained:

> [A] judge of the Bandung PN [city or county district court] need not feel bound to follow the decisions of the Semarang PN on a particular matter, and is not even required to follow the West Java PT [provincial high court]. The West Java PT is not bound by the decisions of the Greater Jakarta PT on a particular case and even not bound by prior decisions of the Supreme Court in similar cases.[146]

It bears noting, too, that despite notable exceptions[147] corruption remains a significant problem in Indonesia's courts, as does judicial incompetence, particularly in complex commercial cases.[148] These undermine any effort to maintain consistency in similar cases. Unfortunately, these problems are not only encountered in Indonesia's many city- and regency-level courts (*pengadilan negeri*) and provincial high appeal courts (*pengadilan tinggi*) but also in the Supreme Court itself.[149] For all these reasons, the cases discussed below can be considered only indicative of what a future court might decide.

With this in mind, the focus now turns to provide a brief survey of the accessible cases. Before discussing the cases involving aviation-related deaths, the Authors note that Indonesian courts, including the Supreme Court, have handled many aviation-related cases not involving injury or death. In those cases,

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(stating that Supreme Court compilations of *yurisprudensi* "must be followed by judges when deciding cases").

145 SUDARSONO, *supra* note 37, at 86; MOHAMAD ISNAINI, HAKIM DAN UNDANG-UNDANG [JUDGES AND STATUTES] 13 (1971).

146 DEDI SOEMARDI, SUMBER-SUMBER HUKUM POSITIP [POSITIVE LEGAL SOURCES] 47–48. (1980).

147 *See* Cate Sumner & Tim Lindsey, *Courting Reform: Indonesia's Islamic Courts And Justice For The Poor*, INT'L J. CT. ADMIN., Dec. 2011, at 1, 4–5 (noting the exceptions include Indonesia's shari'a jurisdiction, the *Peradilan Agama* (Religious Courts)); BUTT, *supra* note 32, at 8.

148 David K. Linnan, *"Reading the Tea Leaves" in the Indonesian Commercial Court?*, *in* NEW COURTS IN ASIA 56 (Andrew Harding & Penelope Nicholson eds., 2010); BUTT & LINDSEY, *supra* note 26, at 299–303; SIMON BUTT, CORRUPTION AND LAW IN INDONESIA 12 (2012).

149 POMPE, *supra* note 141, at vii–viii; Simon Butt, *Indonesian Supreme Court Invalidates Its Own Ethics Code*, E. ASIA F. (Mar. 1, 2012), eastasiaforum.org/2012/03/01/Indonesian-supreme-court-invalidates-its-own-ethics-code/ [perma.cc/7WU8-YJY2].

the legal framework detailed above—including Article 1365 of the Civil Code, the Aviation Law, and the Consumer Protection Law—has been applied. Plaintiffs have tended to win compensation claims when airlines have misplaced or lost their baggage and, in some cases, have even been awarded damages for immaterial losses. In *Dono Indarto v. Emirates Airlines*, for example, the plaintiff successfully claimed 25 million rupiah for material losses and 75 million rupiah in immaterial losses suffered when the airline lost his gold cane, the head of which he claimed contained two kilograms of gold.[150] Although the case file does not appear to explain precisely the rationale for awarding three-fold more in immaterial damages than material damages, the reason appears to be that it was a gift from the plaintiff's religious teacher in Cyprus.[151]

In some cases, the courts have awarded only a percentage of the damages the plaintiff has claimed. In *Qatar Airways Q.C.S.C. v. Leo Mualdy Christoffel*, for example, the plaintiff sought compensation under the Consumer Protection Law for money stolen from his bag during a flight from Geneva, Switzerland to Jakarta, Indonesia.[152] The Court upheld a decision of the BPSK requiring the carrier to pay 50% of the missing money.[153] Even though the carrier's employees had not stolen the money, the carrier was still held partly culpable: it did not have security cameras operating and did not warn passengers to be careful to keep watch over their belongings, given thefts had occurred in the past.[154] However, this decision was overturned when the Supreme Court reopened the case and decided that there was, in fact, no evidence of the loss being caused by the carrier.[155] Similarly, in *Garuda Indonesia v. Mahsin*, the plaintiff successfully

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[150] Dono Indarto v. Emirates Airlines, Mahkamah Agung [Supreme Court] Apr. 24, 2012, Decision No. 2094 K/Pdt/2010, Direktori Putusan (Indon.), putusan3.mahkamahagung.go.id/direktori/download_file/11ea5d4b932bae26977d313933363136/zip [perma.cc/D2XY-WCD8].

[151] *Id.*

[152] Qatar Airways Q.C.S.C. v. Leo Mualdy Christoffel, Mahkamah Agung [Supreme Court] Sept. 8, 2016, Decision No. 649 K/Pdt.Sus-BPSK/2016, Direktori Putusan (Indon.), putusan3.mahkamahagung.go.id/direktori/download_file/fd951d32ba9bc7ef9a5da7c98da6a6bb/pdf [perma.cc/DN82-UU8U].

[153] *Id.*

[154] *Id.*

[155] Qatar Airways Q.C.S.C. v. Leo Mualdy Christoffel, Mahkamah Agung [Supreme Court] Aug. 16, 2017, Case Review No. 117 PK/Pdt.Sus-BPSK/2017, Direktori Putusan (Indon.), putusan3.mahkamahagung.go.id/direktori/download_file/e68c17ac8a0199a527cb0a0a36a11613/pdf [perma.cc/Y58Q-VGJU].

claimed 23 million rupiah, which was only 60% of the plaintiff's initial request, for a suitcase that was lost on a flight between Jakarta and Singapore.[156]

The courts have also refunded the amounts plaintiffs paid for flights that are cancelled or delayed, and sometimes have even awarded damages for immaterial losses suffered by plaintiffs unable to reach their planned destinations or other remedies. For example, in *PT Indonesia AirAsia v. Hastjarjo Boedi Wibowo*, the plaintiff was late to an event in Yogyakarta, Indonesia at which he was the sole speaker because AirAsia cancelled one of its domestic flights, forcing him to book another flight.[157] He sued under Article 1365 of the Civil Code, the Aviation Law, and the Consumer Protection Law and was awarded a refund of the ticket price and 50 million rupiah for damage to his reputation caused by his lateness.[158] In *David M.L. Tobing v. PT. Lion Mentari Airlines*, a lawyer sued an airline after a ninety-minute delay forced him to forgo his Lion Air ticket and purchase a new one to attend a court hearing.[159] He successfully claimed breach of Article 1365 of the Civil Code, and the Aviation and Consumer Protection laws, receiving a refund for the ticket he forewent.[160] On Tobing's request, the court also invalidated a standard clause on the ticket that purported to exclude airline responsibility for any loss caused by flight delay or cancellation.[161] It held that this violated Article 18(1)(a) of the Consumer Protection Law, which prohibits businesses from using standard clauses to exclude liability.[162]

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156 Garuda Indonesia v. Mahsin, Mahkamah Agung [Supreme Court] Dec. 19, 2017, Decision No. 1317 K/Pdt.Sus-BPSK/2017, Hukum (Indon.), hukumonline.com/pusatdata/detail/lt5aa750f22a81d?r=0&q=decision%20No.%201317%20K/Pdt.Sus-BPSK/2017&rs=1847&re=2020 [perma.cc/MG2Y-XALN].

157 PT Indonesia AirAsia v. Hastjarjo Boedi Wibowo, Mahkamah Agung [Supreme Court] Nov. 20, 2012, Decision No. 1391 K/Pdt/2011, Hukum (Indon.), hukumonline.com/pusatdata/detail/mac2a4b115fc414?r=0&q=Decision%20No.%201391%20K/Pdt/2011&rs=1847&re=2020 [perma.cc/AD2Z-8E8R].

158 *Id.*

159 David M.L. Tobing v. PT. Lion Mentari Airlines, Pengadilan Negeri Jakarta Pusat [Central Jakarta District Court] Jan. 26, 2008, Decision No. 309/PDT.G/2007/PN.Jkt.Pst (Indon.), hukumonline.com/pusatdata/detail/28035?r=0&q=Decision%20No.%20309/PDT.G/2007/PN.Jkt.Pst%20&rs=1847&re=2020 [perma.cc/X3H5-RJGE].

160 *Id.*

161 *Id.*

162 *Id.*

The Supreme Court has also heard passenger claims of poor service. In one case, the plaintiff complained about failure of the airline, the airport, and even the Ministry of Communications to accommodate his need for a wheelchair.[163] He was awarded 25 million rupiah and a newspaper apology including for, inter alia, not receiving a priority seat.[164] The plaintiff did not rely solely upon the Aviation Law and the Civil Code, but also on public services, disability, and airport laws and regulations.[165] He also alleged violations of provisions of the Consumer Protection Law, including Article 18, subsections 2 and 3, which can attract criminal penalties, but it appears that no criminal penalties were pursued.[166] Finally, in *Sulaiman v. PT Garuda Indonesia*, the plaintiff sued Garuda after being removed from a flight for unruly behaviour.[167] He alleged a violation of Article 1365 of the Civil Code, but was unsuccessful, with the Court finding that his removal was justifiable given he had thrown his bag at an air hostess and kicked her.[168]

The discussion now turns to the available aircraft accident cases.

### A. *SUCIPTOYONO V. SINGAPORE AIRLINES*[169]

This case involved a claim by Sigit Suciptoyono, an Indonesian passenger on Singapore Airlines Flight 006, which crashed at Taiwan's Chiang Kai Shek airport in October 2000.[170] The crash occurred because the pilots attempted to take-off in a ty-

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[163] Lion Mentari Airlines, Angkasa Pura II v. Ridwan Sumantri, Kementerian Perhubungan RI cq. Direktorat Jenderal Perhubungan Udara, Mahkamah Agung [Supreme Court] Jan. 26, 2016, Decision No. 2368 K/Pdt/2015 (Indon.) (on file with Authors).

[164] *Id.*

[165] *Id.*

[166] *Id.*

[167] Sulaiman v. PT Garuda Indonesia, Mahkamah Agung [Supreme Court] Nov. 13, 2018, Decision No. 2733 K/Pdt/2018, Direktori Putusan (Indon.), putusan3.mahkamahagung.go.id/direktori/download_file/11e93b0fc143e652af3b313131373236/pdf [perma.cc/W6PT-BPZ7].

[168] *Id.*

[169] Suciptoyono v. Singapore Airlines, Pengadilan Negeri Jakarta Selatan [South Jakarta District Court] Feb. 5, 2008, Decision No. 908/Pdt.G/2007/PN.Jak.Sel (Indon.) (on file with Authors); Suciptoyono v. Singapore Airlines, Mahkamah Agung [Supreme Court] Apr. 26, 2011, Decision No. 1517 K/Pdt/2009, Direktori Putusan (Indon.), putusan3.mahkamahagung.go.id/direktori/download_file/5588556bc6b8c1df3119ac8fc936af93/pdf [perma.cc/78ZU-ZCV9].

[170] *Suciptoyono*, Supreme Court Decision No. 1517 K/Pdt/2009.

phoon from a runway closed for maintenance, resulting in the plane colliding with construction equipment and barriers.[171] Of the 179 passengers, eighty-three died after the plane, a Boeing 747-412, disintegrated and caught fire.[172] Suciptoyono, who had been a senior marketing manager in an Indonesian oil and gas insurance company, sustained severe burns and injuries to his arm and head, as well a post-traumatic stress disorder that limited his ability to work and prevented him winning further promotions.[173]

Suciptoyono initially brought proceedings in California, but the California court declined jurisdiction on the basis that it was not a proper forum for the litigation.[174] Because both Indonesia and Singapore had signed the Warsaw Convention, Article 28 of that Convention applied, which specifies as the basis of jurisdiction the domicile of the carrier, principal place of business of the carrier, place where the ticket was purchased, or place of final destination of the journey.[175] Next, Suciptoyono attempted to sue in Singapore, but could not proceed because he could not travel there to swear an affidavit due to his injuries.[176]

He then brought his claim before the South Jakarta District Court, basing his claim on Article 1365 of the Civil Code and Article 25(1) of the Warsaw Convention.[177] The Court found that the Civil Code and the Warsaw Convention applied and ordered damages of 1 billion rupiah (approximately $70,376.96

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[171] Fatimah Mehron Nisha, *Crash of Singapore Airlines Flight SQ006*, SINGAPOREINFOPEDIA, eresources.nlb.gov.sg/infopedia/articles/SIP_1813_2011-07-13.html [perma.cc/XH66-8BAJ].

[172] *Id.*

[173] *Suciptoyono*, South Jakarta District Court Decision No. 908/Pdt.G/2007/PN.Jak.Sel.

[174] *Id.*

[175] *Id.*; Warsaw Convention, *supra* note 76, art. 28(1).

[176] *Suciptoyono*, South Jakarta District Court Decision No. 908/Pdt.G/2007/PN.Jak.Sel.

[177] *Id.*

> 1. The carrier shall not be entitled to avail himself of the provisions of this Convention which exclude or limit his liability, if the damage is caused by his wilful misconduct or by such default on his part as, in accordance with the law of the Court seised of the case, is considered to be equivalent to wilful misconduct.
>
> 2. Similarly the carrier shall not be entitled to avail himself of the said provisions, if the damage is caused as aforesaid by any agent of the carrier acting within the scope of his employment.

Warsaw Convention, *supra* note 76, art. 25(1)–(2).

USD),[178] which Suciptoyono considered inadequate.[179] He appealed to the Jakarta High Court, which awarded him 1.5 billion rupiah (approximately $105,565.44 USD),[180] comprising material damages of 504.3 million rupiah (which included the costs of Suciptoyono's business class ticket and loss of income) and immaterial damages of 1 billion rupiah for his emotional trauma.[181] Both parties unsuccessfully appealed on cassation to the Supreme Court, where the High Court decision was upheld.[182]

### B. The Munir Case[183]

Munir[184] was a prominent Indonesian civil rights activist who was murdered on a Garuda Indonesia flight from Jakarta to Amsterdam in circumstances that implicated Garuda staff.[185] In 2008, his widow, Suciwati, sued Garuda in the Central Jakarta District Court under Articles 3, 17, and 25(1) of the Warsaw Convention, Articles 1365–1367 of the Civil Code, and Articles 4 and 7 of the Consumer Protection Law.[186] She also relied on a range of other legal authority to establish commission of a wrongful act, including: (1) the Constitution;[187] (2) the Aviation Law;[188] (3) Law 19 of 2003 on State-Owned Enterprises;[189] (4) Government Regulation 3 of 2001 on Flight Security and Safety

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178 *Suciptoyono*, South Jakarta District Court Decision No. 908/Pdt.G/2007/PN.Jak.Sel.; *Indonesian Rupiah to US Dollar Conversion*, *supra* note 52.

179 *See Suciptoyono*, Supreme Court Decision No. 1517 K/Pdt/2009.

180 *Id.*; *Indonesian Rupiah to US Dollar Conversion*, *supra* note 52.

181 *Suciptoyono*, Supreme Court Decision No. 1517 K/Pdt/2009.

182 *Id.*

183 Suciwati v. Garuda, Pengadilan Negeri Jakarta Pusat [Central Jakarta District Court] May 3, 2007, Decision No. 277/PDT.G/2006/PN.JKT.PST (Indon.) (on file with Authors).

184 Many Indonesians use only one name.

185 *Suciwati*, Central Jakarta District Court Decision No. 277/PDT.G/2006/PN.JKT.PST.

186 *Id.*; Warsaw Convention, *supra* note 76, arts. 3, 17, 25(1); BW arts. 1365–67 (Indon.); UU No. 8 Tahun 1999 arts. 4, 7 (Indon.).

187 Undang-Undang Dasar 1945 [1945 Constitution] (Indon.), hukumonline.com/pusatdata/detail/lt4ca2eb6dd2834/undang-undang-dasar-1945?r=4&q=Undang-Undang%20Dasar%201945%20&rs=1847&re=2020 [perma.cc/2M5P-BZ9M].

188 UU No. 1 Tahun 2009 (Indon.).

189 Undang-Undang Nomor 19 Tahun 2003 Tentang Badan Usaha Milik Negara [UU No. 19 Tahun 2003] [Law Number 19 of 2003 on State-owned Enterprises] (Indon.), hukumonline.com/pusatdata/detail/13588/ [perma.cc/A6NN-422C].

(which creates the administrative system for air safety in Indonesia);[190] and even (4) Garuda operations and flight manuals.[191]

Suciwati sought nonmaterial damages of 9 billion rupiah and material damages of 4 billion rupiah, including: (1) the estimated future income of Munir; (2) the costs of education, medical care, and therapy of Munir's children; (3) money Munir had expended on language training and departure taxes for the flight; and (4) his funeral costs.[192] The Central Jakarta District Court awarded substantially less than Suciwati had sought, particularly for lost wages.[193]

Suciwati appealed to the High Court[194] and then to the Supreme Court.[195] The Supreme Court awarded her 3.4 billion rupiah (approximately $239,111.94 USD),[196] accepting the amount for lost income that she claimed in the district court.[197] It also upheld the award of 40 million rupiah for immaterial damages and Munir's burial costs.[198] However, the Supreme Court excluded compensation for the education and medical expenses of Munir's children, and Munir's student and travel expenses.[199] It did not explain why they were not included.[200] Indeed, they were not even mentioned in the Court's calculations.[201]

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190 Peraturan Pemerintah Nomor 3 Tahun 2001 Tentang Keamanan dan Keselamatan Penerbangan [PP No. 3 Tahun 2001] [Government Regulation Number 3 of 2001 on Flight Security and Safety] (Indon.), hukumonline.com/pusatdata/detail/12959/peraturan-pemerintah-nomor-3-tahun-2001?r=0&q=Peraturan%20Pemerintah%20Nomor%203%20Tahun%202001%20Ttentang%20Keamanan%20dan%20Keselamatan%20Penerbangan&rs=1847&re=2020 [perma.cc/B3K4-ZGN4].

191 *Suciwati*, Central Jakarta District Court Decision No. 277/PDT.G/2006/PN.JKT.PST.

192 *Id.*

193 *Id.*

194 Suciwati v. Garuda, Pengadilan Tinggi Jakarta [Jakarta High Court] Dec. 7, 2007, Decision No. 392/PDT/2007/PT.DKI (Indon.) (on file with Authors).

195 Garuda v. Suciwati, Mahkamah Agung [Supreme Court] Jan. 28, 2010, Decision No. 2586 K/PDT/2008 (Indon.) (on file with Authors).

196 *Id.*; *Indonesian Rupiah to US Dollar Conversion*, *supra* note 52.

197 *Garuda*, Supreme Court Decision No. 2586 K/PDT/2008.

198 *Id.*

199 *Id.*

200 *Id.*

201 *Id.*

### C. The Boeing Cases

In September 2005, Mandala Airlines flight MDL091 from Medan, Indonesia to Jakarta, Indonesia crashed into a heavily-populated residential area soon after take-off from Medan's Polonia International Airport, in northeast Sumatra.[202] Of the 117 on board, five crew and ninety-five passengers were killed, and fifteen passengers were seriously injured.[203] Dozens of houses and cars were destroyed, and there were forty-nine ground fatalities.[204] The plane was a Boeing 737-230 (Advanced).[205]

More than thirty-five family members of the dead sued the airline, United Technologies Corporation, and Boeing under Article 1365 of the Civil Code and Article 8 of Government Regulation 3 of 2001 on Flight Security and Safety (which sets general airworthiness standards for aircraft).[206] The plaintiffs sought material and immaterial compensation of $2 million USD for each person killed, along with a penalty of 500 million rupiah for every day the verdict was not carried out.[207] They did not explain how their claims were calculated.[208]

In 2009, the Central Jakarta District Court rejected the claim on two main grounds.[209] The first was that the engine was not defective and had been certified by both the U.S. Federal Aviation Administration and the Indonesian Directorate General for Air Transportation.[210] In any event, if the airplane was, in fact, defective in the way the plaintiffs alleged, this would have been noticed by the defendant, who would have removed the airplane

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[202] *Mandala Airlines Flight MDL 091*, AviationSafetyNetwork (last updated Aug. 28, 2020), aviation-safety.net/database/record.php?id=20050905-0 [perma.cc/7SQE-MN6Q].

[203] *Id.*

[204] *Id.*

[205] *Id.*

[206] Andre Adiputra v. Boeing, Pengadilan Negeri Jakarta Pusat [Central Jakarta District Court] June 2, 2010, Decision No. 186/PDT.G/2009/PN.JKT.PST, Direktori Putusan (Indon.), putusan3.mahkamahagung.go.id/direktori/download_file/4797bbb715c47741193a164ba500582a/pdf [perma.cc/78X5-CJKM]; Andre Adiputra v. Boeing, Pengadilan Tinggi Jakarta [Jakarta High Court] Oct. 20, 2016, Decision No. 462/PDT/2016/PT DKI, Direktori Putusan (Indon.), putusan3.mahkamahagung.go.id/direktori/download_file/11e9952415a6b6e8b4f5303232393432/pdf [perma.cc/N5AJ-R5QE].

[207] *Adiputra*, Jakarta High Court Decision No. 462/PDT/2016/PT DKI.

[208] *See id.*

[209] *See id.*

[210] *Id.*

from service.[211] As the engine was not defective, there could be no fault as required by Article 1365 of the Civil Code.[212] The second ground was that the plaintiffs lacked standing to sue because they had already voluntarily signed release and discharge statements in favor of the defendants.[213] This bound the plaintiffs by virtue of Article 1338 of the Civil Code.[214] This decision was appealed to the Jakarta High Court, where it was upheld.[215] There was, to the Authors' knowledge, no cassation appeal to the Supreme Court.

A number of the plaintiffs in this case were also plaintiffs in two other unsuccessful cases brought in the Central Jakarta District Court seeking compensation for the crash.[216] One went up to the Supreme Court,[217] while the other only went as far as the Jakarta High Court.[218] Their claims were rejected for similar reasons to the case just described, with these courts finding that the accident resulted from human error and not defects in the airplane itself.[219]

### D. The Adam Air Case

In 2007, Adam Air Flight KI574, a Boeing 737-4QB, from Surabaya to Manado crashed into the Makassar Strait near Polewali.[220] All 102 people on board were killed.[221] Families of victims of the crash reportedly sued the airline in the West Jakarta District Court seeking compensation of 1 trillion

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[211] *Adiputra*, Central Jakarta District Court Decision No. 186/PDT.G/2009/PN.JKT.PST.

[212] *Adiputra*, Jakarta High Court Decision No. 462/PDT/2016/PT DKI.

[213] *Id.*

[214] *Id.*

[215] *Id.*

[216] Saiful Bahri v. Boeing, Mahkamah Agung [Supreme Court] Nov. 28, 2014, Decision No. 1797 K/Pdt/2013, Direktori Putusan (Indon.), putusan3.mahkamahagung.go.id/direktori/putusan/feade1d3d3e0f3c720e20cb8d4a9fc05.html [perma.cc/QM39-ADEG]; Karim v. Boeing, Pengadilan Tinggi Jakarta [Jakarta High Court] Nov. 7, 2014, Decision No. 557/Pdt/2014/PT.DKI (Indon.) (on file with Authors).

[217] *Bahri*, Supreme Court Decision No. 1797 K/Pdt/2013.

[218] *Karim*, Jakarta High Court Decision No. 557/Pdt/2014/PT.DKI.

[219] *Bahri*, Supreme Court Decision No. 1797 K/Pdt/2013.

[220] Nicholas Ionides, *Final Report: Adam Air 737 Plunged Into Sea After Pilots Lost Control*, FlightGlobal (Mar. 25, 2008), flightglobal.com/final-report-adam-air-737-plunged-into-sea-after-pilots-lost-control/79402.article [perma.cc/XS55-XFSL]. Surabaya, Manado, and Polewalia are all locations in Indonesia.

[221] *Id.*

rupiah.[222] The Authors could not locate reliable information about the outcome of this case and no judgments are publicly available. The Authors presume, therefore, that the matter was settled out of court, and that the terms are confidential.

### E. The AirAsia Case

Indonesia AirAsia Flight 8501, an Airbus A320-216, crashed into the Java Sea while flying from Surabaya, Indonesia to Singapore, Malaysia on December 28, 2014.[223] All 162 on board died.[224] Families of the dead brought six cases against Indonesia AirAsia in the Tangerang District Court.[225] All seem to have failed for formal reasons, with no damages awarded, although copies of the judgments are not publicly available. As far as the Authors can ascertain, at least thirty of the victims' families received compensation, and it is possible other claims have also been resolved out of court.[226]

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[222] *Ahli Waris Pramugari Gugat AdamAir Rp 2 Miliar*, *supra* note 19; *The Mystery of Flight 574*, Herald (Apr. 27, 2007), heraldscotland.com/news/12760861.the-mystery-of-flight-574/ [perma.cc/FM42-SBQH].

[223] Barbara Peterson, *The AirAsia Crash That Killed 162 Was "Utterly Preventable"*, Popular Mechs. (Dec. 1, 2015), popularmechanics.com/flight/news/a18378/the-air-asia-8501-investigation/ [perma.cc/S97X-YTV4].

[224] *Id.*

[225] Ong Sio Hwa v. Indonesia AirAsia, Pengadilan Negeri Tangerang [Tangerang District Court] Oct. 18, 2017, Decision No. 773/Pdt.G/2017/PN.TNG (Indon.) (judgment not publicly available); Hung Sang Song v. Indonesia AirAsia, Pengadilan Negeri Tangerang [Tangerang District Court] Oct. 18, 2017, Decision No. 774/Pdt.G/2017/PN.TNG (Indon.) (judgment not publicly available); Telly Chandra v. Indonesia AirAsia, Pengadilan Negeri Tangerang [Tangerang District Court] Oct. 18, 2017, Decision No. 775/Pdt.G/2017/PN.TNG (Indon.) (judgment not publicly available); Mei Yi Wee v. Indonesia AirAsia, Pengadilan Negeri Tangerang [Tangerang District Court] Sept. 22, 2017, Decision No. 706/Pdt.G/2017/PN.TNG (Indon.) (judgment not publicly available); Ari Sandi Irawan v. Indonesia AirAsia, Pengadilan Negeri Tangerang [Tangerang District Court] Dec. 27, 2016, Decision No. 933/Pdt.G/2016/PN.TNG (Indon.) (judgment not publicly available); Mei Yi Wee v. Indonesia AirAsia, Pengadilan Negeri Tangerang [Tangerang District Court] Dec. 27, 2016, Decision No. 934/Pdt.G/2016/PN TNG (Indon.) (judgment not publicly available). The Authors obtained information on these cases by using the search function on the Tangerang District Court case management website. Sistem Informasi Penelusuran Perkara Pengadilan Negeri Pandeglang [Pandeglang State Court Information System for Case Searching], sipp.pn-pandeglang.go.id/list_perkara (last visited Nov. 5, 2020).

[226] Jajeli Rois, *30 Korban AirAsia QZ8501 Terima Kompensasi, Sisanya Terkendala Surat Kematian* [*30 AirAsia QZ8501 Victims Receive Compensation, The Rest Constrained by Death Certificates*], Detik News (July 27, 2015), news.detik.com/berita/d-2976353/30-korban-airasia-qz8501 [perma.cc/MQK2-PDUU].

## IV. CONCLUSION

The Indonesian legal system certainly establishes the liability of carriers and manufacturers for the death of aircraft passengers. It does so in specific aviation regulations, the Consumer Protection Law, and Civil Code provisions that impose a general tort-like liability for unlawful acts and omissions, including negligence. However, these provisions offer only limited comfort to families of the dead who might go to an Indonesian court seeking compensation.

The Aviation Law and Ministerial Regulation 77 together create a form of strict liability compensation for the death of air passengers, payable by the relevant air carrier, but limited to the small sum of 1.25 billion rupiah (approximately $87,908.80 USD).[227] The Montreal Convention offers compensation about twice that with respect to international flights. Although the Montreal Convention has been ratified in Indonesia, and its predecessor, the Warsaw Convention, has sometimes been applied by the courts, there is still uncertainty about whether the Montreal Convention is an enforceable part of Indonesia's domestic law. Equally, there is uncertainty about whether Indonesia's hierarchy of laws allows the Montreal Convention to prevail over the limits on liability in Ministerial Regulation 77. The legal controversies that create these uncertainties—over the domestic status of a ratified treaty and the relative authority of different legal instruments—are long-standing and much debated, and there is no simple solution to either.

The Consumer Protection Law offers simpler options to the families of passengers killed in air crashes. However, the Consumer Protection Law requires a plaintiff to demonstrate that a breach of duties owed to consumers was the cause of the losses suffered, which may not always be possible. In any event, thus far it appears the Consumer Protection Law has usually only been applied in cases involving relatively minor losses—primarily damaged or lost property—although it was listed among the laws the court relied on in a decision discussed above, the *Munir* case.

It is also open to the families of the victims of an air crash in Indonesia to sue for additional compensation for a "wrongful act" under Article 1365 of the Civil Code, one of the most commonly used provisions in Indonesian civil litigation. Judicial in-

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[227] *Indonesian Rupiah to US Dollar Conversion*, *supra* note 52.

terpretation of this provision has been dominated by colonial-era Dutch decisions, but the provision is applied in a very wide sense and would cover negligence by an aircraft operator, carrier, or manufacturer. If families of the dead choose this route, they could claim compensatory damages for both tangible and intangible losses, as "appropriate in the circumstances," including even for mental illness.

In practice, however, only a very small number of claims for compensation for the death of a passenger under Article 1365 have reached Indonesian courts. After extensive searches, the Authors could locate just one such case that resulted in judgment for the plaintiffs—again, the *Munir* case. However, this was not an air crash but the murder of a passenger in which the carrier was involved, and even then, the total compensation ordered was only 3.4 billion rupiah ($237,726.00 USD). The only case involving a fatal air crash in which a plaintiff was successful—*Suciptoyono v. Singapore Airlines*—was brought by a survivor, and he was awarded just 1.5 billion rupiah ($104,878.00 USD). Most of the other claims appear to have been dismissed for formal reasons without adjudication of their merits, in some cases most likely because they were settled privately. In any case, it seems that no successful action has been brought in Indonesia against an aircraft manufacturer under Article 1365 for compensation for the death of a passenger in an air crash.

The limited number of relevant cases, the paucity of reasoning in the few judgments available, and the absence of a formal system of judicial precedent makes it very hard to predict how Indonesian courts would handle similar cases in the future. The Authors conclude only by making the somewhat obvious comments that plaintiffs have rarely won judgment in these cases, and the quantum of damages awarded has been low. Put another way, Indonesia has yet to develop a clear and predictable body of jurisprudence in relation to civil liability for fatal air crashes.

# TARGETING IN OUTER SPACE: AN EXPLORATION OF REGIME INTERACTIONS IN THE FINAL FRONTIER

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## ABSTRACT

Space infrastructure is now integral to both civilian life and warfare. Belligerents may find great military advantage in destroying a satellite in orbit, but this could have grave consequences for civilians on earth and create long-lasting space debris. This Article identifies the applicable law by harmonizing international humanitarian law, human rights law, and international space law. The Authors conclude that targeting a satellite in armed conflict will be permissible only as a measure of last resort, not of first response.

## I. INTRODUCTION

SPACE INFRASTRUCTURE HAS shaped the modern world, becoming increasingly integrated into many facets of both civilian life and modern warfare.[1] Civilians rely on satellites for everyday activities including communication (whether for voice, data, television, or radio); navigation (from mobile telephones to aircraft and ships); and financial systems (which are dependent on timing provided by satellite position, navigation, and timing systems, such as Global Positioning System (GPS)).[2] Mili-

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[1] *See* Sarah M. Mountin, *The Legality and Implications of International Interference with Commercial Communication Satellite Signals*, 90 INT'L L. STUD. 101, 109–14 (2014).

[2] *See* Dale Stephens & Cassandra Steer, *Conflicts in Space: International Humanitarian Law and Its Application to Space Warfare*, 40 ANNALS AIR & SPACE L. 71, 90–91 (2015); *What is Positioning, Navigation and Timing (PNT)?*, U.S. DEP'T TRANSP.

taries are also dependent on satellites for communication, navigation, situational awareness, and munitions guidance.[3]

Yet, increased reliance on space systems also increases vulnerability. During wartime, belligerents are likely to attempt to deny an adversary's connection to space—particularly if their reliance on space assets is high.[4] Further, space assets such as satellites are "soft" targets due to their relative vulnerability: satellites (1) are generally unshielded; (2) often have predictable, traceable orbits; (3) have limited ability to maneuver to avoid attack; (4) are few enough in number that their destruction could have significant impacts; and (5) are not easily replaceable due to the expense and time involved.[5] Moreover, many satellites of military value are likely to be dual-use, also providing a range of services to civilians.[6]

As an example, it is entirely possible that one satellite in low Earth orbit (LEO) might provide critical positioning information to a State's armed forces but also be used to coordinate civilian disaster relief activities. In any consideration of targeting the satellite, the impacts on civilians will have to be taken into account (in this example, potential civilian deaths due to the disruption of disaster relief activities).[7] Further, should the satellite be attacked by an anti-satellite weapon (ASAT), it will also be important to consider that debris created by the interception could remain in orbit for up to a century, making orbits that intersect with the debris field dangerous to use.[8]

The increasing militarization of outer space has prompted significant academic discussion on the legal regulation of military space activities.[9] It also coincides with contentious proposals led

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(June 13, 2017), https://www.transportation.gov/pnt/what-positioning-navigation-and-timing-pnt [perma.cc/NJQ6-9PLH].

[3] Stephens & Steer, *supra* note 2, at 75.

[4] Matteo Frigoli, *Wild Military Operations in Outer Space: A Sword of Damocles Hanging over the Future of Space Environment and Space Activities*, *in* A FRESH VIEW ON THE OUTER SPACE TREATY 49, 53 (Annette Froehlich ed., 2018).

[5] *Id.* at 53–54; Kimberly Brinson, *How Satellites Avoid Attacks and Space Junk While Circling the Earth*, FORBES (July 2, 2018), https://www.forbes.com/sites/oracle/2018/07/02/how-satellites-avoid-attacks-and-space-junk-while-circling-the-earth/?sh=72c989b1596a [perma.cc/ACJ9-2WNE].

[6] Stephens & Steer, *supra* note 2, at 89–90.

[7] *Id.* at 91.

[8] *Id.* at 76.

[9] *See, e.g.*, Michael N. Schmitt, *International Law and Military Operations in Space*, 10 MAX PLANCK Y.B. U.N. L. 89 (2006); Dale Stephens, *The International Legal Implications of Military Space Operations: Examining the Interplay between International Humanitarian Law and the Outer Space Legal Regime*, 94 INT'L L. STUD. 75 (2018);

by Russia and China for a new treaty addressing the placement of weapons in outer space,[10] as well as multiple proposals for a Code of Conduct for Outer Space Activities.[11] Of course, outer space is not a legal vacuum—there is a body of international space law (ISL) which applies, in addition to other legal regimes.[12] Of particular importance for understanding the legal regulation of military activities in outer space are three overlapping regimes: ISL, international humanitarian law (IHL), and international human rights law (IHRL). There are important questions yet to be fully explored regarding how these legal regimes will interact in the context of targeting satellites in an international armed conflict.

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Kubo Mačák, *Silent War: Applicability of the* Jus in Bello *to Military Space Operations*, 94 INT'L L. STUD. 1 (2018); Stephens & Steer, *supra* note 2; Steven Freeland, *The Laws of War in Outer Space*, *in* HANDBOOK OF SPACE SECURITY 81 (Kai-Uwe Schrogl, Peter L. Hays, Jana Robinson, Denis Moura & Christina Giannopapa eds., 2015); Frans von der Dunk, *International Space Law*, *in* HANDBOOK OF SPACE LAW 29 (Frans von der Dunk & Fabio Tronchetti eds., 2015).

[10] Draft "Treaty on Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force Against Outer Space Objects," in letter dated Feb. 12, 2008, from the Permanent Rep. of the Russian Federation and the Permanent Rep. of China Addressed to the Secretary-General of the Conference on Disarmament, U.N. Doc. CD/1839 (Feb. 29, 2008); Updated Draft "Treaty on the Prevention of the Placement of Weapons in Outer Space and of the Threat or Use of Force Against Outer Space Objects," in letter dated June 10, 2014, from the Permanent Rep. of the Russian Federation and the Permanent Rep. of China Addressed to the Acting Secretary-General of the Conference on Disarmament, U.N. Doc. CD/1985 (June 12, 2014); *see also* Analysis of a Draft "Treaty on Prevention of the Placement of Weapons in Outer Space, or the Threat or Use of Force Against Outer Space Objects," in letter dated Aug. 19, 2008 from the Permanent Rep. of the U.S. Addressed to the Secretary-General of the Conference on Disarmament, U.N. Doc. CD/1847 (Aug. 26, 2008); Fabio Tronchetti & Liu Hao, *The 2014 Updated Draft PPWT: Hitting the Spot or Missing the Mark?*, 33 SPACE POL'Y 38 (2015).

[11] *E.g.*, Council of the European Union, International Code of Conduct for Outer Space Activities, Draft, Mar. 31, 2014, http://www.eeas.europa.eu/archives/docs/non-proliferation-and-disarmament/pdf/space_code_conduct_draft_vers_31-march-2014_en.pdf [perma.cc/5JVQ-3T3U]; *see also generally* Jack M. Beard, *Soft Law's Failure on the Horizon: The International Code of Conduct for Outer Space Activities* 38 U. PA. J. INT'L L. 335 (2017).

[12] "States Parties to the Treaty shall carry on activities in the exploration and use of outer space, including the moon and other celestial bodies, in accordance with international law. . . ." Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies art. III, *opened for signature* Jan. 27, 1967, 18 U.S.T. 2410, 610 U.N.T.S. 205 [hereinafter Outer Space Treaty].

In existing scholarship in this area, the interface between IHL and ISL has been the primary focus.[13] Comparatively, the relationship between IHRL and ISL has been considered to a lesser extent,[14] and the triangular relationship between ISL, IHL, and IHRL has not been examined by any previous study.

Historically, IHL and IHRL were viewed as divergent bodies of law, applying in wartime and peacetime respectively.[15] The convergence of IHL and IHRL is now commonly recognized by international bodies and legal scholars, and IHRL is regarded as applying both in peacetime and in situations of armed conflict.[16] Both regimes protect the fundamental principle of humanity and both contain provisions governing the use of force against persons and objects.[17] When the use of force has a connection to outer space, the provisions of ISL will also apply.[18]

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[13] *See* sources cited *supra* note 9.

[14] *See, e.g.*, Steven Freeland & Ram S. Jakhu, *The Intersection between Space Law and International Human Rights Law*, *in* ROUTLEDGE HANDBOOK OF SPACE LAW 225 (Ram S. Jakhu & Paul Stephen Dempsey eds., 2017) [hereinafter Freeland & Jakhu, *The Intersection between Space Law and International Human Rights Law*]; Steven Freeland & Ram Jakhu, *What's Human Rights Got to Do with Outer Space? Everything!*, *in* PROCEEDINGS OF THE INTERNATIONAL INSTITUTE OF SPACE LAW 365 (Rafael Moro-Aguilar, P.J. Blount & Tanja Masson-Zwaan eds., 2015); Irmgard Marboe, *Human Rights Consideration for Space Activities*, *in* IN HEAVEN AS ON EARTH? THE INTERACTION OF PUBLIC INTERNATIONAL LAW ON THE REGULATION OF OUTER SPACE 135 (Stephan Hobe & Steven Freeland eds., 2013).

[15] *See, e.g.*, Noëlle Quénivet, *Introduction: The History of the Relationship Between International Humanitarian Law and Human Rights Law*, *in* INTERNATIONAL HUMANITARIAN LAW AND HUMAN RIGHTS LAW: TOWARDS A NEW MERGER IN INTERNATIONAL LAW 1, 6–7 (Roberta Arnold & Noëlle Quénivet eds., 2008) (quoting G.I.A.D. Draper, *Humanitarian Law and Human Rights*, 1979 ACTA JURIDICA 193, 205 (1979)).

[16] *See, e.g.*, Legality of Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226, ¶ 25 (July 8); Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory, Advisory Opinion, 2004 I.C.J. 136, ¶ 106 (July 9); Armed Activities on the Territory of the Congo (Dem. Rep. Congo v. Uganda), Judgment, 2005 I.C.J. 168, ¶¶ 216–17 (Dec. 19); Hum. Rts. Comm., General Comment No. 31 [80]: The Nature of the General Legal Obligation Imposed on States Parties to the Covenant, ¶ 11, U.N. Doc. CCPR/C/21/Rev.1/Add.13 (May 26, 2004); THE HANDBOOK OF INTERNATIONAL HUMANITARIAN LAW 12 (Dieter Fleck ed., 2d ed. 2008).

[17] *See infra* Parts II–III.

[18] IHL "applies to all forms of warfare and to all kinds of weapons, those of the past, those of the present and those of the future." *Legality of Threat or Use of Nuclear Weapons*, 1996 I.C.J. ¶ 86. The International Committee of the Red Cross has explicitly stated that "any hostile use of outer space in armed conflict . . . must comply with IHL, in particular its rules of distinction, proportionality and precautions in attack." *Weapons: ICRC Statement to the United Nations, 2015*, INT'L

This Article examines the laws applicable to the targeting of a satellite, including the relevant provisions of ISL, the IHL rules applicable in an international armed conflict, and the IHRL right to life.[19] Relevant provisions of IHL, IHRL, and ISL will be examined in Parts II, III, and IV respectively. Part V will outline interpretative approaches to reconciling these provisions. Part VI will present a proposal for the reconciliation of IHRL and ISL norms with the IHL that primarily governs situations of armed conflict in outer space using the interpretive tools of *lex specialis* and harmonization.

## II. INTERNATIONAL HUMANITARIAN LAW

Two fundamental principles—military necessity and humanity—form the foundation of IHL.[20] These principles are set out, both explicitly and implicitly, in the 1907 Hague Regulations,[21] the 1949 Geneva Conventions,[22] and their Additional Protocol I (API).[23] Military necessity, at its most rudimentary level, is the principle that allows belligerent parties lawfully to kill and injure persons, and to damage and destroy property.[24] The principle requires any action undertaken during an international armed conflict (IAC) to be justified as necessary to achieve a discerni-

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COMM. OF THE RED CROSS (Oct. 15, 2015), https://www.icrc.org/en/document/weapons-icrc-statement-united-nations-2015 [perma.cc/3Y9U-GV75].

[19] Other IHRL rules might also be relevant in particular circumstances, but the right to life is examined here as it is likely to be the most important in the context of targeting a satellite.

[20] *See* sources cited *infra* notes 21–23.

[21] *See, e.g.*, Convention (IV) Respecting the Laws and Customs of War on Land and its Annex: Regulations Concerning the Laws and Customs of War on Land, *opened for signature* Oct. 18, 1907, 36 Stat. 2277, T.S. No. 539.

[22] *See* Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field arts. 10, 12, *opened for signature* Aug. 12, 1949, 6 U.S.T. 3114, 75 U.N.T.S. 31; Geneva Convention for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea art. 2, *opened for signature* Aug. 12, 1949, 6 U.S.T. 3217, 75 U.N.T.S. 85; Geneva Convention Relative to the Treatment of Prisoners of War art. 2, *opened for signature* Aug. 12, 1949, 6 U.S.T. 3316, 75 U.N.T.S. 135; Geneva Convention Relative to the Protection of Civilian Persons in Time of War art. 2, *opened for signature* Aug. 12, 1949, 6 U.S.T. 3516, 75 U.N.T.S. 287.

[23] Protocol Additional to the Geneva Conventions of 12 August 1949 and Relating to the Protection of Victims of International Armed Conflicts (Protocol I) pmbl., arts. 1–2, *opened for signature* June 8, 1977, 1125 U.N.T.S. 3 [hereinafter API].

[24] Stephens & Steer, *supra* note 2, at 84.

ble military advantage.[25] On the other hand, the principle of humanity seeks to mitigate the effects of war on civilians and combatants.[26] The principle dictates that unnecessary measures of military violence are forbidden.[27] The tension between military necessity and humanity plays out in the further guiding principles of IHL—namely, distinction, proportionality, precaution, and constant care.[28] IHL also contains rules aimed at protecting the environment in armed conflicts.[29] Each of these principles is discussed below, as is their application in the space environment.

### A. Distinction

The principle of distinction is set out in Article 48 of API, which requires parties to an IAC to "at all times distinguish between the civilian population and combatants and between civilian objects and military objectives," and to "direct their operations only against military objectives."[30] Characterization of an object as a "military objective" is therefore critical to the legitimacy of targeting.

A test for determining whether something is a military objective is provided in Article 52(2) of API.

> In so far as objects are concerned, military objectives are limited to those objects which by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage.[31]

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[25] Yoram Dinstein, The Conduct of Hostilities Under the Law of International Armed Conflict 103 (3d ed. 2016).

[26] *See* Geneva Convention Relative to the Protection of Civilian Persons in Time of War, *supra* note 22.

[27] Waldemar A. Solf, *Article 35*, *in* New Rules for Victims of Armed Conflicts: Commentary on the Two 1977 Protocols Additional to the Geneva Conventions of 1949, at 192, 195 (1982).

[28] *See infra* Sections II.A–D.

[29] *See infra* Section II.E

[30] API, *supra* note 23, art. 48. This requirement, otherwise known as the "basic rule," has been recognized as an expression of customary international law. *See* Legality of Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226, ¶ 79 (July 8); Partial Award Regarding Western Front, Aerial Bombardment and Related Claims, Eritrea's Claims 1, 3, 5, 9–13, 14, 21, 25 & 26 (Eri. v. Eth.), PCA Case Repository No. 2001-02 (2006); Int'l Comm. of the Red Cross, 1 Customary International Humanitarian Law 11 (Jean-Marie Henckaerts & Louise Doswald-Beck eds., 2005).

[31] API, *supra* note 23, art. 52(2).

This definition is widely accepted as an expression of customary international law,[32] though its abstract, nonprescriptive nature has led to considerable debate regarding the scope of its application.[33]

In essence, Article 52(2) creates a two-part test, namely, that an object must: (1) make an effective contribution to military action due to its nature, location, purpose, or use; and (2) offer a definite military advantage through its total or partial destruction.[34]

### *1. "Nature, Location, Purpose or Use"*

The "nature" of an object means it must be directly used by armed forces.[35] Scholars suggest that, in the space environment, this definition includes any satellite used by military forces, whether for a military purpose or otherwise.[36]

"Location" means that objects, by mere virtue of their location, can be deemed to make an effective contribution to military action.[37] In traditional forms of warfare, such an object could be an important mountain pass, trail, or bridge.[38] In the space environment, Schmitt notes that "[p]erhaps the single-most distinguishing characteristic of space is its location."[39] Indeed, by virtue of location, space "constitutes a lucrative military objective."[40] Accordingly, a civilian satellite in close proximity to a military satellite may be a legitimate target if an attack against the satellite would affect a military need, or if a belligerent could place space debris into a particular orbit to deprive the enemy of the use of that orbit at a particular moment.[41]

"Purpose" refers to the intended future use of an object, while "use" refers to its present function.[42] While the present use of a

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[32] *Partial Award Regarding Western Front, Aerial Bombardment and Related Claims, Eritrea's Claims 1, 3, 5, 9–13, 14, 21, 25 & 26*, PCA Case Repository No. 2001-02, ¶¶ 112–13; *see also* INT'L COMM. OF THE RED CROSS, *supra* note 30, at 29.

[33] *See* DINSTEIN, *supra* note 25, at 103.

[34] API, *supra* note 23, art. 52(2).

[35] INT'L COMM. OF THE RED CROSS, COMMENTARY ON THE ADDITIONAL PROTOCOLS OF 8 JUNE 1977 TO THE GENEVA CONVENTIONS OF 12 AUGUST 1949, ¶ 2020 (Yves Sandoz, Christophe Swinarski & Bruno Zimmermann eds., 1987).

[36] Stephens & Steer, *supra* note 2, at 88–89; Schmitt, *supra* note 9, at 116.

[37] INT'L COMM. OF THE RED CROSS, *supra* note 35, ¶ 2021.

[38] *See* DINSTEIN, *supra* note 25, at 115–16.

[39] Schmitt, *supra* note 9, at 117.

[40] *Id.*

[41] *See, e.g.*, Stephens & Steer, *supra* note 2, at 89; Schmitt, *supra* note 9, at 117.

[42] INT'L COMM. OF THE RED CROSS, *supra* note 35, ¶ 2022.

satellite may be relatively easy to determine, the future intended use of a space object is particularly difficult to establish.[43] In the space domain, it is often difficult to amass sufficient intelligence to establish intent because intended uses of objects are often communicated deceptively, if communicated at all.[44] Further, space systems may be immediately converted to military use by little more than the programming of a satellite to handle military data.[45] The combination of these factors creates a highly uncertain environment in which to ascertain the purpose of a space object. In fact, the intended use of a space object may not become clear until the object is *actually in use*. Importantly, in this context, where there is doubt about intended use, an object must be presumed to have a civilian purpose.[46]

### *2. "Definite Military Advantage"*

Once an object is shown to make an effective contribution to military action, the second step of the cumulative test is to determine whether its destruction would offer a "definite military advantage."[47] Scholars suggest that a definite military advantage must be a "concrete and perceptible military advantage,"[48] based on sufficient information,[49] and directly or indirectly logically related to a weakening of enemy forces.[50] However, the shifting nature of armed conflicts means that objects that offer a definite military advantage at one moment may cease to do so shortly thereafter, making it "[im]possible to have a class of target."[51] For example, in the space environment, the location of a space object may shift, the use or ownership of a satellite may change or be transferred, or circumstances could change such that the destruction of an object no longer offers a definite military advantage.[52] Accordingly, Dinstein suggests that an ap-

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[43] Stephens & Steer, *supra* note 2, at 89.

[44] *Id.*

[45] Schmitt, *supra* note 9, at 117.

[46] API, *supra* note 23, art. 52(3); INT'L COMM. OF THE RED CROSS, *supra* note 35, ¶ 2022.

[47] API, *supra* note 23, art. 52(2).

[48] Waldermar A. Solf, *Article 52*, *in* NEW RULES FOR VICTIMS OF ARMED CONFLICTS: COMMENTARY ON THE TWO 1977 PROTOCOLS ADDITIONAL TO THE GENEVA CONVENTIONS OF 1949, *supra* note 27, at 318, 326.

[49] INT'L COMM. OF THE RED CROSS, *supra* note 35, ¶ 2024.

[50] IAN HENDERSON, THE CONTEMPORARY LAW OF TARGETING 61 (2009).

[51] *Id.* at 48 (quoting Françoise J. Hampson, *Proportionality and Necessity in the Gulf Conflict*, 86 AM. SOC'Y INT'L L. PROC. 45, 49 (1992)).

[52] Stephens & Steer, *supra* note 2, at 89.

praisal of military advantage must necessarily consider the background of the circumstances prevailing at the time; the definition of targetable military objects is therefore "relativized."[53]

### *3. Dual-Use Targets*

Dual-use objects are objects that serve both military and civilian purposes.[54] Such objects further complicate the concept of a "military objective." For the purpose of distinction, all dual-use objects are classified as military objectives, irrespective of any use for civilian purposes.[55] However, simply because a dual-use object is a military objective does not mean it is targetable[56]—the civilian component of a dual-use object must be taken into consideration before an attack is carried out against it, using the requirements of proportionality, precautions, and constant care, which are discussed below.[57]

A significant number of space objects are dual-use.[58] Some have gone so far as to say that "[a]ll space technologies are inherently dual-use."[59] For example, dual-use satellites might carry transponders capable of handling the needs of military and civilian users simultaneously or interchangeably; alternatively, a dual-use satellite might host separate military and civilian payloads.[60] Perhaps most famously, the primary Global Navigation Satellite System (GNSS), GPS, is used for both military and civilian applications.[61] Thus, the satellites that guide military aircraft will often be the same ones that guide a civilian's car.[62]

### *4. Summary—Distinction*

In sum, IHL's principle of distinction requires that parties to an IAC distinguish at all times between civilians and combatants,

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[53] DINSTEIN, *supra* note 25, at 107 (quoting GEOFFREY BEST, WAR AND LAW SINCE 1945, at 272 (1994)).

[54] Schmitt, *supra* note 9, at 116.

[55] MARCO ROSCINI, CYBER OPERATIONS AND THE USE OF FORCE IN INTERNATIONAL LAW 185 (2014). For a discussion on the principle of distinction in relation to dual-use space objects see Schmitt, *supra* note 9, at 116.

[56] Schmitt, *supra* note 9, at 116.

[57] *See* Stephens & Steer, *supra* note 2, at 87–91; *infra* Sections II.B–D.

[58] Schmitt, *supra* note 9, at 118 ("Many space systems are used for both civilian and military purposes.").

[59] G. Ryan Faith, *The Future of Space: Trouble on the Final Frontier*, 175 WORLD AFFS., Sept. / Oct. 2012, at 82, 84.

[60] *See* Stephens & Steer, *supra* note 2, at 90–91.

[61] *Id.* at 95.

[62] Faith, *supra* note 59, at 84.

and between "civilian objects and military objectives."[63] Military objectives are those that: (1) through their nature, location, purpose, or use, make an effective contribution to military action; and (2) offer a definite military advantage through their destruction.[64] For the purpose of distinction, all dual-use objects are classified as military objectives, irrespective of any use for civilian purposes.[65]

A satellite that is used by a State's military forces for positioning information, for example, could be regarded as making an effective contribution to military action either through its military "nature" or, more likely, through its current "use."[66] Further, the destruction of such a satellite would offer a definite military advantage by temporarily disrupting the provision of critical positioning information to that State's armed forces.[67] The fact that a satellite is used for both military and civilian purposes does not prevent it from being classified as a military objective for the purposes of IHL.[68]

### B. Proportionality

The identification of a military objective does not mean that an attack against it will be lawful; rather, for an attack to be lawful it must also comply with other rules of IHL and the principle of proportionality in particular.[69] This principle, recognized as customary in nature,[70] is considered to be the "central pillar of robust civilian protection" from military attacks during wartime.[71] For an attack to be proportionate, Article 51(5) of API states that it must not cause excessive incidental damage to civilians or civilian objects, as measured against the anticipated concrete and direct overall military advantage.[72] It is commonly accepted that "military advantage" refers to the advantage anticipated from an attack considered as a whole, and not only in respect of isolated parts of the attack.[73]

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[63] API, *supra* note 23, art. 48.
[64] *Id.* art. 52(2).
[65] Roscini, *supra* note 55, at 185.
[66] *See supra* Section II.A.3.
[67] *See supra* Section II.A.2.
[68] Roscini, *supra* note 55, at 185.
[69] *See* Stephens & Steer, *supra* note 2, at 84, 88, 90; Schmitt, *supra* note 9, at 84, 88, 90.
[70] Int'l Comm. of the Red Cross, *supra* note 30, at 46.
[71] Dinstein, *supra* note 25, at 153.
[72] API, *supra* note 23, art. 51(5); *see also id.* art. 57(2)(a)(iii), (2)(b).
[73] *See* Int'l Comm. of the Red Cross, *supra* note 30, at 49–50.

An attacker must therefore identify foreseeable collateral damage,[74] and then evaluate such damage against the military advantage anticipated as a result of the attack. The International Criminal Tribunal for the Former Yugoslavia has described this standard as follows: "In determining whether an attack was proportionate it is necessary to examine whether a reasonably well-informed person in the circumstances of the actual perpetrator, making reasonable use of the information available to him or her, could have expected excessive civilian casualties to result from the attack."[75] Therefore, any determination of lawfulness is necessarily a balancing exercise, though the process of balancing the "dissimilar considerations"[76] of anticipated military advantage and incidental civilian losses is "so complicated, needs to take into account such a huge amount of data and so many factors, that any attempt to design a formula which is both comprehensive and precise would be ridiculous."[77]

Notably, civilian damage that is "extensive" may not be "excessive" under Article 51(5)(b) when compared to the anticipated concrete and direct military advantage.[78] As noted above, no formula for "excessiveness" can be applied to determine proportionality; each determination must take into account the facts of that specific situation.

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[74] The notion of "foreseeability" is present in a number of State military manuals. *See, e.g.*, U.S. DEP'T OF DEF., LAW OF WAR MANUAL 261–62, 366 (2016); 1 GOV'T OF SPAIN, ORIANTACIONES: EL DERECHO DE LOS CONFLICTOS ARMADOS [ORIENTATIONS: THE RIGHT OF ARMED CONFLICTS] ¶¶ 2.5.a, 4.3 (1996); PRESIDENTE DE LA REPUBLICA [PRESIDENT OF THE REPUBLIC OF PERU], REGLAMENTO DEL DECRETO LEGISLATIVO NO. 1095 [REGULATION OF LEGISLATIVE DECREE NO. 1095] art. 7(5) (2010); DANISH MINISTRY OF DEF., MILITARY MANUAL ON INTERNATIONAL LAW RELEVANT TO DANISH ARMED FORCES IN INTERNATIONAL OPERATIONS 308, 311–12 (2016); U.K., THE JOINT SERVICE MANUAL OF THE LAW OF ARMED CONFLICT ¶ 5.33.4 (2004); NORWEGIAN MINISTRY OF DEF., MANUAL OF THE LAW OF ARMED CONFLICT ¶¶ 1.27, 2.34 (2013).

[75] Prosecutor v. Galić, Case No. IT-98-29-T, Judgment and Opinion, ¶ 58 (Int'l Crim. Trib. for the Former Yugoslavia Dec. 5, 2003).

[76] Stephens & Steer, *supra* note 2, at 94 (citing DINSTEIN, *supra* note 25, at 158).

[77] Stefan Oeter, *Methods and Means of Combat*, *in* THE HANDBOOK OF INTERNATIONAL HUMANITARIAN LAW, *supra* note 16, at 198. Notably, there is a strand of scholarship that considers the two sides of the proportionality balance to be incommensurable. *See, e.g.*, Janina Dill, Oxford University, Panel Discussion: Interpretative Complexity and the International Humanitarian Law Principle of Proportionality, *in* 108 AM. SOC'Y INT'L L. PROC. 81, 83 (2017). Dill commented on the principle of proportionality. *Id.* In addition to Dill, the panel comprised Daniel Cahen, International Committee of the Red Cross; Yoram Dinstein, Tel Aviv University; Sandesh Sivakumaran, University of Nottingham. *Id.*

[78] DINSTEIN, *supra* note 25, at 156.

*1. Proportionality in the Outer Space Environment*

The prevalence of dual-use space objects, as discussed above, means that an attack against a space object will likely result in indirect effects on aspects of the object used for civilian purposes.[79] For example, an attack against a dual-use satellite could disrupt GNSS signals used for civilian aviation, financial transactions, telecommunications, or dams.[80] As noted by Schmitt, "[t]here is absolutely no doubt that loss of the GPS signal would place civilian lives and property at great risk."[81] Thus, although a space object's dual-use nature means it is a military objective, it may also mean that incidental civilian loss is much more likely to occur as a result of an attack against it.[82] Therefore, proportionality is likely to be a major consideration in all cases.

*2. Summary—Proportionality*

In sum, for an attack to be proportionate it must not cause excessive incidental damage to civilians or civilian objects, as measured against the anticipated concrete and direct overall military advantage.[83] Consequently, an attacker must identify foreseeable collateral damage and evaluate such damage against the military advantage anticipated as a result of the attack.[84] Proportionality is likely to be a major consideration in attacks against dual-use satellites due to the high likelihood of significant incidental civilian loss.[85]

## C. Precautions

A further requirement under IHL is that belligerents shall take precautions to spare civilians and civilian objects during the conduct of military operations.[86] This principle is reflected in customary international law.[87]

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[79] Schmitt, *supra* note 9, at 118.

[80] Stephens & Steer, *supra* note 2, at 91.

[81] Schmitt, *supra* note 9, at 120.

[82] Jack Beard, *The Principle of Proportionality in an Era of High Technology*, *in* 1 Complex Battlespaces: The Law of Armed Conflict and the Dynamics of Modern Warfare 261, 284 (Christopher M. Ford & Winston S. Williams eds., 2019).

[83] API, *supra* note 23, art. 51(5).

[84] *See* sources cited *supra* note 74.

[85] *See supra* Section II.B.

[86] API, *supra* note 23, art. 57(1).

[87] Int'l Comm. of the Red Cross, *supra* note 35, ¶ 2191; Int'l Comm. of the Red Cross, *supra* note 30, at 51; Partial Award Regarding Western Front, Aerial Bombardment and Related Claims, Eritrea's Claims 1, 3, 5, 9–13, 14, 21, 25 & 26

*1. Choice of Means and Methods*

In line with this principle, Article 57(2)(a)(ii) of API states that belligerents who plan an attack must: "Take all feasible precautions in the choice of means and methods of attack with a view to avoiding, and in any event to minimizing, incidental loss of civilian life, injury to civilians and damage to civilian objects."[88] Belligerents are therefore required to consider carefully the precision and range of weapons and munitions, in order to minimize civilian losses.[89]

*2. Precautions in the Outer Space Environment*

The requirement to take precautions has "particular resonance within the space domain" due to its unique characteristics as compared to terrestrial domains.[90] Of primary concern is the creation of considerable debris fields upon the destruction of a space object.[91] The orbital lifetime of a space object, such as debris, "depends on how strongly it is affected by atmospheric drag."[92] Physicist David Wright notes that debris could have a lifetime of weeks orbiting at 300 kilometers (km), a year at 500 km, and several decades at 700 km; specifically, "[i]f a satellite destroyed by an ASAT weapon were orbiting at an altitude above about 800 km, then a large fraction of the debris particles created in the collision would remain in orbit for decades or longer."[93] The adverse effects of this scenario are suitably demonstrated by the infamous destruction of a weather satellite by China in 2007.[94] China used an ASAT to destroy an aging weather satellite known as Fengyun-1C (FY-1C) at an altitude of 863 km,[95] within the range of orbital altitude known as LEO.[96] The destruction of FY-1C created more than 3,000 pieces of space debris, accounting for almost half of all known and

(Eri. v. Eth.), PCA Case Repository No. 2001-02, ¶ 142 (2006) (recognizing the principle in § IX(B)(2)).

[88] API, *supra* note 23, art. 57(2)(a)(ii).

[89] INT'L COMM. OF THE RED CROSS, *supra* note 35, ¶ 2200.

[90] Stephens & Steer, *supra* note 2, at 99.

[91] Schmitt, *supra* note 9, at 120.

[92] David Wright, *Space Debris*, 60 PHYSICS TODAY 35, 39 (2007).

[93] *Id.*

[94] Brian Weeden, *2007 Chinese Anti-Satellite Test Fact Sheet*, SECURE WORLD FOUND. (Nov. 23, 2010), https://swfound.org/media/9550/chinese_asat_fact_sheet_updated_2012.pdf [perma.cc/7LL5-C43F].

[95] *Id.*

[96] *Types of Orbits*, EUR. SPACE AGENCY (Mar. 30, 2020), https://www.esa.int/Our_Activities/Space_Transportation/Types_of_orbits [perma.cc/5FGB-R4SV].

tracked satellite debris currently in LEO—79% of which will remain in orbit until approximately 2108.[97]

Thus, due to the certainty that debris fields will be created by kinetic space attacks, the principle of precautions may require belligerents to avoid such attacks by first using other non-space attacks, such as a terrestrial kinetic attack on command and control facilities. As Schmitt noted, "if a satellite can be reliably neutralized through a strike on a ground-based control node in a remote area, it would not be permissible to attack the satellite kinetically and thereby create dangerous space debris."[98]

If non-space attacks will not result in a comparable military advantage, incremental approaches to space attacks would be required. For example, where "soft kill"[99] means of satellite attack (such as a cyberattack against a computer network) are feasible, it is likely that there is a legal obligation to use soft kill means, rather than kinetic means of attack to minimize incidental damage.[100] Both the United States and the United Kingdom (UK) generally employ incremental approaches to military space operations: deception, disruption, denial, degradation, and then destruction.[101]

### *3. Summary—Precautions*

The precautions principle requires that belligerents take all feasible precautions in choosing means and methods of attack with a view to avoid, and in any event to minimize, incidental damage to civilians or civilian objects in the conduct of military operations.[102] Due to the certainty that debris fields will be created by kinetic space attacks, the principle of precautions may require belligerents to avoid such attacks by first using other non-space attacks, such as a terrestrial kinetic attack on command and control facilities, where such attack is a feasible alter-

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[97] Weeden, *supra* note 94.

[98] Schmitt, *supra* note 9, at 121. Of course, attacks on ground stations may have civilian consequences, and may be seen as a more direct affront to territorial sovereignty, and these are matters regulated by international law—but they are not the focus of this Article.

[99] For descriptions of "soft kill" technologies, see Robert A. Ramey, *Armed Conflict on the Final Frontier: The Law of War in Space*, 48 A.F. L. Rev. 1, 27 (2000); Stephens & Steer, *supra* note 2, at 78–79.

[100] Schmitt, *supra* note 9, at 120–21; Stephens & Steer, *supra* note 2, at 101.

[101] *See* Schmitt, *supra* note 9, at 119; William H. Boothby, Conflict Law: The Influence of New Weapons Technology, Human Rights and Emerging Actors 125 n.130 (2014).

[102] API, *supra* note 23, art. 57(2)(a)(ii).

native.[103] If non-space attacks will not result in a comparable military advantage, incremental approaches to space attacks through escalating means such as deception, disruption, denial, degradation and, finally, destruction, may be used.[104]

### D. Constant Care

A further requirement of IHL is constant care. Article 57(1) of API requires that "[i]n the conduct of military operations, constant care shall be taken to spare the civilian population, civilians and civilian objects."[105] A similar obligation exists at customary international law.[106] This obligation requires that impacts on the civilian population be considered and minimized (as much as possible) at all stages of the planning and execution of military operations so that there are no unnecessary negative consequences for the civilian population.[107]

This obligation supplements the requirements of distinction, proportionality, and precautions,[108] imposing a duty of taking constant care to spare the civilian population even in the conduct of attacks which meet those three sets of requirements.[109] In the outer space context, one important consequence of the rule of constant care is that adverse impacts on civilians will have to be considered even if they might not have sufficient proximity to be taken into account in the proportionality analysis.

In any attack on a satellite, the rule of constant care would require that, at all stages of the planning and execution of the attack, (1) the impact on the civilian population (even those effects that may not be required as part of the formal proportionality analysis) be expressly considered; and (2) care be taken to spare the civilian population any deprivations that are unnecessary to the achievement of legitimate military objectives.

### E. Environment

In addition to the principal IHL rules on targeting addressed above, considerations of the space environment are also relevant. Environmental considerations are, in fact, directly relevant

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[103] *See supra* Section II.C.2.

[104] *Id.*

[105] API, *supra* note 23, art. 57(1).

[106] Int'l Comm. of the Red Cross, *supra* note 30, at 51.

[107] Tallinn Manual 2.0 on the International Law Applicable to Cyber Operations 476–77 (Michael N. Schmitt & Liis Vihul eds., 2017).

[108] *See supra* Sections II.A–C.

[109] API, *supra* note 23, art. 57.

to targeting. As the International Court of Justice (ICJ) has held, "[r]espect for the environment is one of the elements that go to assessing whether an action is in conformity with the principles of necessity and proportionality."[110] However, IHL also contains freestanding environmental obligations on belligerents to protect the natural environment during armed conflict.[111] Article 35(3) of API provides that "[i]t is prohibited to employ methods or means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment,"[112] and Article 55(1) requires that:

> Care shall be taken in warfare to protect the natural environment against widespread, long-term and severe damage. This protection includes a prohibition of the use of methods or means of warfare which are intended or may be expected to cause such damage to the natural environment and thereby to prejudice the health or survival of the population.[113]

Scholars note that the "conjunctive nature" (widespread, long-term, and severe) of these obligations establishes a high threshold for breach, requiring environmental damage to be "exceptionally serious."[114] While API Articles 35(3) and 55(1) do not expressly apply to outer space, their application to the space environment "would be a logical deductive conclusion."[115] Indeed, the group of experts who authored the recent Oslo Manual on Select Topics of the Law of Armed Conflict (*Oslo Manual*) agreed that "in the conduct of Outer Space operations [Article 35(3)] should be applied by analogy."[116] Moreover, the United Nations (UN) Convention on the Prohibition of Military or Any

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[110] Legality of Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226, ¶ 30 (July 8); *see also* Michel Bourbonnière, *Law of Armed Conflict (LOAC) and the Neutralisation of Satellites or* Ius in Bello Satellitis, 9 J. CONFLICT & SEC. L. 43, 63 (2004).

[111] *See* API, *supra* note 23, arts. 35(3), 55(1).

[112] *Id.* arts. 35(3), 55(1).

[113] *Id.* art. 55(1). The International Committee of the Red Cross takes the view that these rules have, since the time of their adoption, come to represent customary international law (except with respect to certain persistent objectors). INT'L COMM. OF THE RED CROSS, *supra* note 30, at 151–54; *see also* G.A. Res. 47/37, Protection of the Environment in Times of Armed Conflict (Feb. 9, 1993); Johan D. van der Vyver, *The Environment: State Sovereignty, Human Rights, and Armed Conflict*, 23 EMORY INT'L L. REV. 85, 98–103 (2009).

[114] TALLINN MANUAL 2.0 ON THE INTERNATIONAL LAW APPLICABLE TO CYBER OPERATIONS, *supra* note 107, at 539.

[115] Stephens & Steer, *supra* note 2, at 80.

[116] YORAM DINSTEIN & ARNE WILLY DAHL, OSLO MANUAL ON SELECT TOPICS OF THE LAW OF ARMED CONFLICT 13 (2020).

Other Hostile Use of Environmental Modification Techniques (ENMOD)[117] prohibits military use of hostile environmental modification techniques that cause "widespread, long-lasting or severe effects."[118] "Environmental modification techniques" include "any technique for changing . . . the dynamics, composition or structure of the earth, including its biota, lithosphere, hydrosphere and atmosphere, *or of outer space*."[119]

Although limited relevant State practice[120] indicates that kinetic destruction of satellites (in non-armed conflict situations) has not yet been considered through the lens of either Articles 35(3) or 55(1) of API, or under ENMOD,[121] the widespread, long-lasting, and severe effects of space debris are evident,[122] and States should consider these effects when planning kinetic attacks against space objects.

### F. Summary: IHL Requirements for Targeting a Satellite

This Part has outlined the principal IHL rules relevant to attacks on satellites: (1) distinction; (2) proportionality; (3) precautions; (4) constant care; and (5) protection of the environment.[123]

The IHL principle of distinction mandates that attacks may only be conducted against military objectives[124]—objects that, through "their nature, location, purpose or use make an effective contribution to military action."[125] As has been shown, military objectives in the space environment include any satellite used by military forces,[126] including all dual-use objects.[127] Furthermore, destruction of an object must offer a definite military advantage[128]—a concrete and perceptible advantage based on

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117 Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques, *opened for signature* Dec. 10, 1976, 31 U.S.T. 333, 1108 U.N.T.S. 17119.

118 *Id.* art. 1(1).

119 *Id.* art. 2 (emphasis added).

120 *See supra* Section II.C.2 (destruction of satellite FY-1C); *supra* Section V.A (destruction of satellites USA-193 and Microsat-R).

121 Fabio Tronchetti, *Legal Aspects of the Military Uses of Outer Space*, *in* Handbook of Space Law, *supra* note 9, at 331, 344–45.

122 *See* Wright, *supra* note 92, at 39.

123 *See supra* Part II.

124 API, *supra* note 23, art. 48.

125 *Id.* art. 52(2).

126 Stephens & Steer, *supra* note 2, at 88–89; Schmitt, *supra* note 9, at 116.

127 Roscini, *supra* note 55, at 185; Dinstein, *supra* note 25, at 120.

128 API, *supra* note 23, art. 52(2).

sufficient information under the circumstances prevailing at the time.[129]

To be lawful under IHL, attacks against military objectives must comply with the principles of proportionality, precautions, and constant care.[130] The principle of proportionality mandates that States must assess the potential impacts on the civilian population as a result of the destruction of a military objective.[131] As has been established, the kinetic destruction of a space object will often result in the creation of a considerable debris field.[132] Furthermore, attacks against dual-use space objects will likely result in indirect negative effects on civilians on Earth.[133] Thus, proportionality is likely to be a major consideration in all attacks against space objects.

Further, this Part has established that States must take all feasible precautions in the choice of means and methods of attack to avoid incidental harm to civilians.[134] This requirement is significant within the space environment due to the certainty that space debris will be created upon the kinetic destruction of a space object.[135] Thus, if terrestrial attacks are feasible and will result in a comparable military advantage, they should be used. If not, incremental approaches to space attacks should be used. Similar considerations arise from the requirement that constant care be taken to spare the civilian population, which requires ongoing action to avoid unnecessary harm to civilians arising from the pursuit of military objectives.[136]

Additionally, it has been shown that IHL separately obligates States to protect the outer space environment during armed conflict.[137] This protection includes a prohibition against methods or means of warfare that may be expected to cause widespread, long-term, and severe damage to the natural environment and therefore negatively affect the civilian population.[138]

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[129] Solf, *supra* note 48, at 326; INT'L COMM. OF THE RED CROSS, *supra* note 35, ¶ 2024; DINSTEIN, *supra* note 25, at 107.

[130] *See supra* Sections II.B–D.

[131] API, *supra* note 23, arts. 51(5), 57(2)(a)(iii), 57(2)(b).

[132] Wright, *supra* note 92, at 36; *see supra* Section II.B.

[133] Schmitt, *supra* note 9, at 118; *see supra* Section II.B.

[134] API, *supra* note 23, art. 57(2)(a)(ii).

[135] Schmitt, *supra* note 9, at 120; *see supra* Section II.C.

[136] *See supra* Section II.D.

[137] *See* API, *supra* note 23, art. 35(3); *see also supra* Section II.E.

[138] API, *supra* note 23, art. 35(3).

To return to the example of a dual-use satellite noted above, the satellite will likely be found to make an effective contribution to military action due to its use, making it a "military objective."[139] The dual-use nature of the satellite does not preclude its classification as a military objective.[140] However, the civilian component of the satellite must be taken into consideration—using the proportionality, precautions, and constant care principles—before an attack is carried out against it.[141] With regard to proportionality, the likelihood of civilian losses must be weighed against the anticipated military advantage.[142] Further, the precautions principle requires consideration of the inherent civilian consequences of destroying the satellite.[143] Due to the certainty that debris fields will be created by successful kinetic space attacks, a State would be required first to consider other non-space attacks, such as a terrestrial kinetic attack on command and control facilities.[144] If non-space attacks will not result in a comparable military advantage, a State would be required to consider a soft-kill attack, or, if this option is not feasible, incremental approaches to space attacks of deception, disruption, denial, and degradation before, finally, destruction may be considered.[145]

Finally, a State is required to take care to protect the outer space environment against widespread, long-term, and severe damage.[146] There is, as yet, no State practice to further illuminate how the kinetic destruction of a satellite in an IAC would measure up against this requirement under IHL.[147] However, it is clear that attacks at the most serious end of the spectrum could well raise environmental issues under IHL.[148]

In sum, IHL does not prohibit attacks against satellites if they qualify as military objectives. But the principles of proportionality, precautions, and constant care—and the prohibition of causing widespread, long-term, and severe damage to the outer space environment—are likely to (1) reduce significantly the circumstances in which a kinetic attack on a satellite will be law-

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139 *See supra* Section II.A.3.
140 ROSCINI, *supra* note 55, at 185.
141 *See supra* Sections II.A–D.
142 *See supra* Section II.B.
143 *See supra* Section II.C.
144 *Id.*
145 *Id.*
146 API, *supra* note 23, arts. 35(3), 55(1).
147 *See supra* Section II.E.
148 *Id.*

ful; and (2) require the consideration and employment of alternative means and methods, and alternative targets, in many instances. While IHL itself therefore does not prohibit kinetic attacks on satellites where military necessity may demand them, applying IHL's rules that are protective of humanity will, in practice, significantly constrain the ability of States to lawfully target satellites if—as is highly likely in most instances—there will be significant civilian consequences of such an attack.

## III. INTERNATIONAL HUMAN RIGHTS LAW

The previous Part investigated the IHL approach to uses of force. This Part examines relevant IHRL. It should be noted that while IHL inherently covers death as well as injury and damage,[149] IHRL deals with these consequences separately. For the purpose of this Article, only the IHRL right to life will be examined, as loss of life is the most serious consequence that may result from an attack on a satellite.

### A. Extraterritorial Applicability of International Human Rights Law

IHRL instruments apply only to those within the "jurisdiction" of the acting State.[150] However, jurisdiction is broader than the literal concept of the national territorial boundaries of a State.[151] The extraterritorial application of IHRL has been accepted by the ICJ,[152] the European Court of Human Rights (ECtHR),[153] and the Human Rights Committee (HRC),[154] al-

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[149] *See supra* Part II.

[150] *See* sources cited *infra* notes 152–154. However, the African Charter on Human and Peoples' Rights appears to establish a limitless obligation on contracting States to recognize and give effect to the human rights set out in therein. African Charter on Human and Peoples' Rights art. 1, June 27, 1981, 21 I.L.M. 58.

[151] *See, e.g.*, sources cited *infra* notes 152-54.

[152] *See, e.g.*, Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory, Advisory Opinion, 2004 I.C.J. 136, ¶ 111 (July 9) (providing that "[i]n conclusion, the Court considers that the International Covenant on Civil and Political Rights is applicable in respect of acts done by a State in the exercise of its jurisdiction outside its own territory.").

[153] *See, e.g.*, Al-Skeini v. United Kingdom, 2011-IV Eur. Ct. H.R. 99, ¶¶ 137–38. The ECtHR held that

> [i]t is clear that, whenever the State, through its agents, exercises control and authority over an individual, and thus jurisdiction, the State is under an obligation under Article 1 to secure to that individual the rights and freedoms under Section 1 of the Convention [for the Protection of Human Rights and Fundamental Freedoms]

though the scope of its application remains subject to debate. In particular, IHRL obligations will extend beyond a State's territory in situations where that State exercises "power or effective control"[155] over territory or individuals. For example, a State may be in effective control of a foreign territory if its armed forces exercise effective control over the territory.[156] Regarding personal jurisdiction, a State may be in effective control over an individual if that individual is physically in the power of the State, such as individuals who are detained by the State.[157]

Accordingly, a preliminary question regarding the applicability of IHRL obligations to the targeting of a satellite is whether the affected individuals are within the jurisdiction of the attacking State. As the ECtHR recognized in *Drozd and Janousek v. Spain and France*,[158] a State's "responsibility can be involved because of acts of their authorities producing effects outside their own territory."[159] Of course, the ECtHR's controversial decision in *Bankovic v. Belgium* excluded extraterritorial jurisdiction over an air strike.[160] However, in many subsequent instances, the

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> that are relevant to the situation of that individual. . . . Another exception to the principle that jurisdiction under Article 1 is limited to a State's own territory occurs when, as a consequence of lawful or unlawful military action, a Contracting State exercises effective control of an area outside that national territory.

*Id.*

[154] *See, e.g.*, Hum. Rts. Comm., *supra* note 16, ¶ 10.

> States Parties are required by article 2, paragraph 1, to respect and to ensure the [International] Covenant [on Civil and Political Rights (Covenant)] rights to all persons who may be within their territory and to all persons subject to their jurisdiction. This means that a State party must respect and ensure the rights laid down in the Covenant to anyone within the power or effective control of that State Party, even if not situated within the territory of the State Party. . . . This principle also applies to those within the power or effective control of the forces of a State Party acting outside its territory, regardless of the circumstances in which such power or effective control was obtained, such as forces constituting a national contingent of a State Party assigned to an international peace-keeping or peace-enforcement operation.

*Id.*

[155] *Id.* For consideration of this concept under the ECHR, see *Al-Skeini*, 2011-IV Eur. Ct. H.R. ¶¶ 130–40.

[156] *See, e.g.*, *Legal Consequences of Construction of a Wall in the Occupied Palestinian Territory*, 2004 I.C.J. ¶ 112.

[157] *See, e.g.*, Cyprus v. Turkey, App. Nos. 6780/74, 6950/75, 4 Eur. H.R. Rep. 482, 517 (1976); Öcalan v. Turkey, 2005-IV Eur. Ct. H.R. 131 ¶ 91.

[158] Drozd v. Spain, 240 Eur Ct. H.R. (ser. A) (1992).

[159] *Id.* ¶ 91.

[160] Banković v. Belgium, 2001-XII Eur. Ct. H.R. 333 ¶¶ 74–76.

ECHR has been held to apply extraterritorially where military forces are in effective control of territory or persons.[161]

In addition to the range of cases in recent years dealing with effective control over persons, two recent pronouncements have heralded an expanded application of States' human rights obligations. In 2017, the Inter-American Court of Human Rights issued its Advisory Opinion on the Environment and Human Rights, holding that individuals outside the territory of a State would nonetheless be within the jurisdiction of that State if they were harmed by activities carried on within the State if the State "exercises effective control over the activities that caused the damage and the consequent human rights violation."[162] In 2018, the HRC issued its General Comment 36; in addressing the question of the extraterritorial application of the right to life in Article 6 of the ICCPR, the HRC concluded:

> [A] State party has an obligation to respect and to ensure the rights under article 6 of all persons who are within its territory and all persons subject to its jurisdiction, that is, all persons over whose enjoyment of the right to life it exercises power or effective control. This includes persons located outside any territory effectively controlled by the State, whose right to life is nonetheless impacted by its military or other activities in a direct and reasonably foreseeable manner.[163]

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[161] *See, e.g.*, Al-Jedda v. United Kingdom, 2011-IV Eur. Ct. H.R. 305 ¶ 86; Al-Skeini v United Kingdom, 2011-IV Eur. Ct. H.R. 99 ¶ 149; Hassan v. United Kingdom, 2014-VI Eur. Ct. H.R. 1 ¶ 76. Earlier cases reached the same result. *See, e.g.*, Loizidou v. Turkey (Preliminary Objections), 310 Eur. Ct. H.R. (ser. A) ¶ 64 (1995); *Cyprus*, 4 Eur. H.R. Rep. at 517.

[162] Environment and Human Rights, Advisory Opinion OC-23/17, Inter-Am. Ct. H.R. (ser. A) No. 23, ¶ 104 (Nov. 15, 2017). Similarly, the Advisory Opinion states that "persons whose rights have been violated are under the jurisdiction of the State of origin, if there is a causal link between the act that originated in its territory and the infringement of the human rights of persons outside its territory." *Id.* ¶ 101. *See also* Christopher Campbell-Duruflé & Sumudu Anopama Atapattu, *The Inter-American Court's* Environment and Human Rights *Advisory Opinion: Implications for International Climate Law*, 8 CLIMATE L. 321, 333–34 (2018); Angeliki Papantoniou, *Advisory Opinion on the Environment and Human Rights*, 112 AM. J. INT'L L. 460, 461–62 (2018); Antal Berkes, *A New Extraterritorial Jurisdictional Link Recognised by the IACtHR*, EJIL: TALK! (Mar. 28, 2018), https://www.ejiltalk.org/a-new-extraterritorial-jurisdictional-link-recognised-by-the-iacthr/ [perma.cc/E2CW-KFRV]; Giovanny Vega-Barbosa & Lorraine Aboagye, *Human Rights and The Protection of the Environment: The Advisory Opinion of the Inter-American Court of Human Rights*, EJIL: TALK! (Feb. 26, 2018), https://www.ejiltalk.org/human-rights-and-the-protection-of-the-environment-the-advisory-opinion-of-the-inter-american-court-of-human-rights/ [perma.cc/F56P-GG3B].

[163] Hum. Rts. Comm., General Comment No. 36, ¶ 63, U.N. Doc. CCPR/C/GC/36, (Oct. 30, 2018) [hereinafter Hum. Rts. Comm., General Comment No.

According to this approach, human rights obligations exist with respect to persons over whose life a State "exercises power," including those "impacted by its military or other activities in a direct and reasonably foreseeable manner."[164] The application of these tests to the targeting of a satellite confirms that affected individuals might come within the jurisdiction of a State attacking a satellite and thus attract the protection of IHRL. Accordingly, the discussion turns to address the content of the right to life that these affected persons would enjoy.

### B. Elements of the Right to Life

The right to life is commonly regarded as one of the most fundamental human rights.[165] It is customary in nature,[166] and all international human rights treaties recognize the right to life, including the International Covenant on Civil and Political Rights (ICCPR)[167] and the European Convention on Human

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36] (references omitted). *See also* Daniel Møgster, *Towards Universality: Activities Impacting the Enjoyment of the Right to Life and the Extraterritorial Application of the ICCPR*, EJIL: Talk! (Nov. 27, 2018), https://www.ejiltalk.org/towards-universality-activities-impacting-the-enjoyment-of-the-right-to-life-and-the-extraterritorial-application-of-the-iccpr/ [perma.cc/SQ7L-JFXL]; Shaheed Fatima, *Targeted Killing and the Right to Life: A Structural Framework*, Just Security (Feb. 6, 2019), https://www.justsecurity.org/62485/targeted-killing-life-structural-framework/ [perma.cc/62A8-JFXP]; Ryan Goodman, Christof Heyns & Yuval Shany, *Human Rights, Deprivation of Life and National Security: Q&A with Christof Heyns and Yuval Shany on General Comment 36*, Just Security (Feb. 4, 2019), https://www.justsecurity.org/62467/human-life-national-security-qa-christof-heyns-yuval-shany-general-comment-36/ [perma.cc/7HCU-PJ37]. This builds on the HRC's 1981 holding that a State's human rights obligations can extend to acts "which its agents commit upon the territory of another State." Hum. Rts. Comm., Lilian Celiberti de Casariego v. Uru., Commc'n No. 56/1979, ¶ 10.3, U.N. Doc. CCPR/C/13/D/56/1979 (July 29, 1981).

[164] Hum. Rts. Comm., General Comment No. 36, *supra* note 163, ¶ 63.

[165] It should be noted that, although it is commonly understood that some human rights may be derogated from during times of public emergency, this is not applicable to the IHRL prohibition of arbitrary deprivation of life, which is non-derogable. *See* International Covenant on Civil and Political Rights arts. 4, 6, *opened for signature* Dec. 19, 1966, T.I.A.S. No. 92-908, 999 U.N.T.S. 171 [hereinafter ICCPR]; Convention for the Protection of Human Rights and Fundamental Freedoms art. 15, *opened for signature* Nov. 4, 1950, 213 U.N.T.S. 221 [hereinafter ECHR]. ECHR Article 15(2) states that the right to life is non-derogable *except* in relation to deaths resulting from lawful act of war. *Id.* art. 15(2). At present, this exception has not been relied upon by European States.

[166] *See, e.g.*, Quénivet, *supra* note 15, at 331; Elizabeth Wicks, The Right to Life and Conflicting Interests 91 (2010); Jessica Lynn Corsi, *Drone Deaths Violate Human Rights: The Applicability of the ICCPR to Civilian Deaths Caused by Drones*, 6 Int'l Hum. Rts. L. Rev. 205, 210 (2017).

[167] ICCPR, *supra* note 165, art. 6.

Rights (ECHR).[168] The HRC, the body that monitors implementation of the ICCPR, considers the right to life to be "the supreme right from which no derogation is permitted."[169]

Article 6 of the ICCPR provides that "[e]very human being has the inherent right to life. . . . No one shall be arbitrarily deprived of [their] life."[170] Similarly, Article 2 of the ECHR states that "[e]veryone's right to life shall be protected by law. No one shall be deprived of [their] life intentionally save in the execution of a sentence of a court following [their] conviction of a crime for which this penalty is provided by law."[171] Unlike the ICCPR, the ECHR also sets out the following permitted exceptions to the right to life:

> Deprivation of life shall not be regarded as inflicted in contravention of this article when it results from the use of force which is no more than absolutely necessary:
>
> (a) in defence of any person from unlawful violence;
>
> (b) in order to effect a lawful arrest or to prevent the escape of a person lawfully detained;
>
> (c) in action lawfully taken for the purpose of quelling a riot or insurrection.[172]

An extensive body of jurisprudence and soft law has developed the scope of the right to life in IHRL. Four key principles have been established: (1) necessity; (2) proportionality; (3) a precautionary procedural element; and (4) the requirement to hold an ex post facto investigation. Each of these principles is discussed in turn by reference to relevant jurisprudence.

### *1. Necessity*

Deprivation of life will be arbitrary when the force used exceeds that which is absolutely necessary for the achievement of a legitimate aim.[173] As such, Article 2(2) of the ECHR permits the deprivation of life if it "results from the use of force which is no more than absolutely necessary" for the achievement of one or

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[168] ECHR, *supra* note 165, art. 2(1).

[169] Hum. Rts. Comm., General Comment No. 6: Article 6 (Right to Life), ¶ 2, U.N. Doc. CCPR/C/GC/36 (Sept. 3, 2019).

[170] ICCPR, *supra* note 165, art. 6(1).

[171] ECHR, *supra* note 165, art. 2(1).

[172] *Id.* art. 2(2).

[173] NILS MELZER, TARGETED KILLING IN INTERNATIONAL LAW 101 (Vaughan Lowe ed., 2008). The ECtHR has equated the term "absolutely necessary" with "indispensable." *See* Handyside v. United Kingdom, 24 Eur. Ct. H.R. (ser. A) ¶ 48 (1976).

more of the permitted aims set out in Article 2(2) Sections (a)–(c): (1) defense from unlawful violence; (2) to effect a lawful arrest or to prevent the escape of a person lawfully detained; or (3) in action lawfully taken to quell a riot or insurrection.[174]

In *McCann v. United Kingdom*,[175] the ECtHR found that the principle of necessity in the context of the right to life under IHRL "must be strictly construed."[176] The court found that the test of "absolute necessity," which applies to the right to life, is "stricter and more compelling" than the test of "necessary in a democratic society," which applies to the protection of other human rights in Articles 8–11 of the ECHR.[177]

An assessment of the absolute necessity required to justify lethal force under IHRL comprises two sub-questions: (1) "[C]ould other measures be employed to reach one of the aims" pursued? And (2) "if no other measures are available, is it absolutely necessary to use lethal force, or could some lesser degree of force be employed?"[178]

In sum, the principle of necessity under IHRL dictates that lethal force may only be used in circumstances of strict or "absolute necessity" as a last resort, in order to pursue a legitimate aim.

### *2. Proportionality*

The IHRL principles of proportionality and necessity are strongly related. As stated by the ECtHR in *Güleç v. Turkey*,[179] "a balance must be struck between the aim pursued and the means employed to achieve it."[180] Hence, the amount of force used by a State must be "strictly proportionate" to the achievement of the legitimate aim pursued.[181] In *Stewart v United Kingdom*,[182] the European Commission on Human Rights set out the following considerations for determining whether a use of force is strictly proportionate:

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[174] ECHR, *supra* note 165, art. 2(2)(a)–(c).

[175] McCann v. United Kingdom, 324 Eur. Ct. H.R. (ser. A) (1995).

[176] *Id.* ¶ 147.

[177] *Id.* ¶ 149.

[178] Roland Otto, Targeted Killings and International Law: With Special Regard to Human Rights and International Law 168 (2012).

[179] Güleç v. Turkey, 1998-IV Eur. Ct. H.R. 1698.

[180] *Id.* ¶ 71.

[181] *McCann*, 324 Eur. Ct. H.R. (ser. A) ¶ 149, *aff'd*, Tanli v. Turkey, 2001-III Eur. Ct. H.R. 211, ¶ 140.

[182] Stewart v. United Kingdom, App. No. 10044/82, 7 Eur. H.R. Rep. 453 (1985).

> In assessing whether the use of force is strictly proportionate, regard must be had to *the nature of the aim pursued, the dangers to life and limb inherent in the situation and the degree of the risk that the force employed might result in loss of life*. The Commission's examination must have due regard to all the relevant circumstances surrounding the deprivation of life.[183]

*3. Precautions*

Although the requirement to take precautions when contemplating the use of lethal force is not explicitly referred to in IHRL treaties, it has been implied in IHRL jurisprudence. The ECtHR in *McCann* identified the requirement of precaution when it found that assessments of Article 2 violations must take into consideration not only the actions of those who administer force but also "all the surrounding circumstances including such matters as the planning and control of the actions under examination."[184] In particular, the ECtHR found that operations must be "planned and controlled by the authorities so as to minimize, to the greatest extent possible, recourse to lethal force."[185] The ECtHR affirmed this approach in *Andronicou v. Cyprus*,[186] adding that actors must take precautions that are "reasonable in the circumstances"[187] to ensure they are not negligent in their choice of action. Additionally, in *Isayeva and Others v. Russia*,[188] the ECtHR specified information that would assist the court in determining whether an operation has been sufficiently planned and executed: (1) a plan of the operation; (2) information as to how the operation had been planned; (3) assessments of perceived threats and constraints; (4) what other weapons or tactics had been at the State's disposal; and (5) assessments and prevention of possible harm to civilians who might have been in the vicinity of the legitimate target(s).[189] The requirement to take precautions cannot impose an unrealistic or impossible burden on authorities;[190] however, authorities are expected to make sufficient allowances for the possibility that intelligence assess-

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[183] *Id.* ¶ 19 (emphasis added), *aff'd*, Wolfgram v. Federal Republic of Germany, App. No. 11257/84, 9 Eur. H.R. Rep. 548, 549 (1986).

[184] *McCann*, 324 Eur. Ct. H.R. (ser. A). ¶ 150.

[185] *Id.* ¶ 194.

[186] Andronicou v. Cyprus, 25 Eur. Ct. H.R. 491 (1997).

[187] *Id.* ¶ 183.

[188] Isayeva v. Russia, App. Nos. 57947/00, 57948/00, 57949/00, ¶ 175 (Feb. 24, 2005), http://hudoc.echr.coe.int/eng?i=001-68379 [perma.cc/H86H-L4A4].

[189] *Id.* ¶ 175.

[190] *McCann*, 324 Eur. Ct. H.R. (ser. A) ¶ 200.

ments of the relevant situation may be wholly or partially incorrect.[191]

*4. Effective Investigation*

In the event that a life is lost, there is a positive obligation on States to undertake an effective and independent investigation.[192] As stated by the ECtHR in *McCann v. United Kingdom*, "a general legal prohibition of arbitrary killing by the agents of the State would be ineffective, in practice, if there existed no procedure for reviewing the lawfulness of the use of lethal force by State authorities."[193] This requirement has been confirmed in a number of HRC decisions;[194] moreover, investigations must be adequate in the circumstances.[195] The requirements for an effective investigation set out in ECHR jurisprudence are:

(1) Authorities must act sua sponte—it cannot be left to the next of kin to take responsibility for the conduct of any investigative procedures.[196]
(2) Persons responsible for carrying out the investigation must be "independent from those implicated in the events."[197]
(3) The investigation must be effective—that is, it must be "capable of leading to a determination."[198] This does not obligate investigating authorities to reach a result.[199] Rather, they must have taken "reasonable steps available to them" to secure relevant evidence, including eyewitness testimony, forensic evidence, and—where appropriate—an autopsy which provides a complete and accurate record of injury and an objective finding of cause of death.[200]

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191 *Id.* ¶¶ 213–14.

192 Kelly v. United Kingdom, App. No. 30054/96, ¶¶ 94–98 (May 4, 2001), http://hudoc.echr.coe.int/eng?i=001-59453 [perma.cc/A6JQ-XBPY].

193 *McCann*, 324 Eur. Ct. H.R. (ser. A) ¶ 161.

194 *See, e.g.*, Hum. Rts. Comm., Baboeram v. Suriname, Commc'n No. 146/1983, ¶ 14.2, U.N. Doc. CCPR/C/24/D/146/1983 (Apr. 4, 1985).

195 Hum. Rts. Comm., Rubio v. Colom., Commc'n No. 161/1983, ¶ 10.3, U.N. Doc. CCPR/C/31/D/161/1983 (Nov. 2, 1987).

196 *Kelly*, App. No. 30054/96, ¶ 94.

197 *Id.* ¶ 95.

198 *Id.* ¶ 96.

199 *Id.*

200 *Id.*

(4) The inquiry must be prompt and reasonably expeditious.[201]
(5) There must be a "sufficient element of public scrutiny" of the investigation and its results.[202]
(6) The victim's next of kin must be involved "to the extent necessary to safeguard [their] legitimate interests."[203]

With respect to cases of armed conflict, the court in *Kaya v. Turkey* found that the prevalence of armed conflict or a high incidence of fatalities does not displace the obligation to ensure effective, independent investigations into killings.[204] In fact, the requirement is arguably heightened in instances where the circumstances of a death are unclear.[205] Similarly, the *Al-Skeini* case concerned exclusively the question of the application of the effective investigation requirement in an international armed conflict.[206]

Hence, in instances where individuals are deprived of life, States are obligated to undertake effective ex post facto investigations. To be effective, investigations must be thorough, prompt, and impartial. Additionally, authorities must act sua sponte, and the family of the deceased must be involved in the investigative process. Relevantly, the existence of an armed conflict does not displace these obligations.

### C. IHRL Summary

This Part outlined the IHRL principles relevant to the targeting of a satellite: necessity, proportionality, precautions, and investigation. As has been established, a use of force that results in deprivation of life will be permitted under IHRL if it complies with the aforementioned principles.

Under IHRL, lethal force must be "absolutely necessary" to maintain, restore, or impose law and order in the circumstances[207]—a stricter standard than force necessary to achieve legitimate aims such as national security, territorial integrity,

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[201] *Id.* ¶ 97.
[202] *Id.* ¶ 98.
[203] *Id.*
[204] Kaya v. Turkey, 2000-III Eur. Ct. H.R. 149, ¶¶ 91, 108–09.
[205] *See id.* ¶ 104.
[206] Al-Skeini v. United Kingdom, 2011-IV Eur. Ct. H.R. 99, ¶ 168–77.
[207] ECHR, *supra* note 165, art. 2(2)(a)–(c); *see also* Melzer, *supra* note 173, at 101.

and public safety.[208] Further, the amount of force used must be "strictly proportionate" to the achievement of the aim pursued[209] and have regard for the nature of the legitimate aim, the dangers to life inherent in the situation, and the risk that the use of force might result in loss of life.[210] The precautions principle requires States to plan and control operations so as to minimize recourse to lethal force,[211] including undertaking sufficient planning in advance of an attack to demonstrate that risks to civilians have been identified and minimized.[212] Finally, in instances where individuals are deprived of life, States are obligated to undertake effective ex post facto investigations.[213]

The purpose of this analysis is not to suggest that the IHRL standards and tests can or should be applied in full to a loss of life in an armed conflict scenario. Parts V and VI of this Article will examine the extent to which these principles of IHRL are capable of being applied in an IAC. For now, the point is to demonstrate how IHRL would approach the question of whether the right to life was violated if individuals were killed as a result of targeting a satellite.

In order to be lawful under IHRL, the destruction of a satellite must be absolutely necessary to achieve one of the aims set out in ECHR Article 2(2).[214] Two potential issues arise: (1) whether this strict standard of necessity is met; and (2) whether the aim of disabling a portion of an adversary State's military positioning systems is sufficiently connected to an acceptable justification such as defense against unlawful violence.[215] Moreover, interruption of the positioning system must be strictly proportional to the likelihood of civilian deaths.[216] The principle of proportionality under IHRL sets a high threshold, fundamentally seeking to avoid loss of civilian life.[217] These requirements

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[208] *See* McCann v. United Kingdom, 324 Eur. Ct. H.R. (ser. A) ¶ 149 (1995).

[209] *Id.*, *aff'd*, Tanli v. Turkey, 2001-III Eur. Ct. H.R. 211, ¶ 140.

[210] Stewart v. United Kingdom, App. No. 10044/82, 7 Eur. H.R. Rep. 453 ¶ 19 (1985).

[211] *McCann*, 324 Eur. Ct. H.R. (ser. A) ¶ 194.

[212] Isayeva v. Russia, App. Nos. 57947/00, 57948/00, 57949/00, ¶ 175 (Feb. 24, 2005), http://hudoc.echr.coe.int/eng?i=001-68379 [perma.cc/H86H-L4A4].

[213] *See McCann*, 324 Eur. Ct. H.R. (ser. A) ¶ 161; Hum. Rts. Comm., Baboeram v. Suriname, Commc'n No. 161/1983, ¶ 16, U.N. Doc. CCPR/C/31/D/161/1983 (Apr. 4, 1985).

[214] *See* ECHR, *supra* note 165, art. 2(2); *supra* Sections III.A–B.1.

[215] *See supra* Section III.B.1.

[216] *See supra* Section III.B.2.

[217] *Id.*

are supplemented by the precautions principle, which requires a State to plan and control the operation in a way that will minimize recourse to lethal force.[218] Although there are similarities with the IHL tests, which will be further examined in Parts V and VI of this Article, it is obvious that IHRL imposes a very high standard to justify any civilian deaths that might result from the targeting of a satellite.

## IV. INTERNATIONAL SPACE LAW

Having considered relevant IHL and IHRL rules, this Part will now outline the ISL rules applicable to the targeting of a satellite—specifically, ISL rules relevant to the creation of space debris. A kinetic attack against a satellite will undoubtedly cause an environmental threat in outer space, creating a sizeable and hazardous field of debris.[219] Mountin describes the effects of a kinetic attack against a satellite as follows:

> A single collision can be catastrophic. Such an event, involving sufficiently large objects and satellites, can produce hundreds of thousands of fragments, which, depending on the orbit, can trigger other collisions, thereby causing a cascade of subsequent collisions. Put another way, not only is there a prompt and pervasive debris environment, but also additional collisions with that debris imperil space objects and make orbits completely unusable, especially if debris continues to collect indefinitely.[220]

As established in Part II, IHL will take this into account through its principles of proportionality, precautions in attack, and constant care.[221] IHRL will also take debris into account under proportionality and precautions principles.[222] However, for a more complete understanding of the legal considerations that relate to the creation of space debris, ISL must be considered.

ISL is regulated by five multilateral treaties.[223] Of these treaties, the Outer Space Treaty forms the basic legal framework of

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[218] *See supra* Section III.B.3.

[219] *See* Wright, *supra* note 92, at 37; *Space Debris from Anti-Satellite Weapons*, UNION OF CONCERNED SCIENTISTS (Apr. 2008), https://www.ucsusa.org/sites/default/files/2019-09/debris-in-brief-factsheet.pdf [perma.cc/NNE2-G8N4].

[220] Mountin, *supra* note 1, at 116.

[221] *See supra* Sections II.B–D.

[222] *See supra* Sections II.B.2–3.

[223] Outer Space Treaty, *supra* note 12; Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space, *opened for signature* Apr. 22, 1968, 19 U.S.T. 7570, 672 U.N.T.S. 119; Convention on International Liability for Damage Caused by Space Objects, *opened for signature* Mar. 29, 1972, 24 U.S.T. 2389, 961 U.N.T.S. 187; Convention on Registration

ISL and provides the most relevant regulatory regime for military activities in outer space.[224] As such, Outer Space Treaty provisions relevant to debris creation will now be examined.

### A. Outer Space Treaty

All military space activities carried out by State parties to the Outer Space Treaty must be guided by the principle of non-contamination—specifically, Article 9 of the Outer Space Treaty mandates that States must "pursue studies of outer space, including the Moon and other celestial bodies, and conduct exploration of them so as to avoid their harmful contamination."[225]

The Outer Space Treaty does not define "harmful contamination"—or the related concept of "harmful interference."[226] However, having assessed Article 9 using treaty interpretation consistent with the Vienna Convention on the Law of Treaties,[227] Mineiro posits "that harmful contamination of outer space is the introduction of elements that make outer space unfit for use or are likely to be injurious to users of outer space."[228] The Cologne Commentary on Space Law explicitly states that "space debris are a form of harmful contamination."[229] However, States are not prohibited from harmfully contaminating outer space; they are merely obligated to *avoid* harmful contamination.[230] It is particularly difficult to determine satisfactory avoidance of harmful contamination because the Outer Space Treaty, while requiring "appropriate international consultations" in the case of apprehended "harmful interference," is silent in regard to the situations and manner in which such consultations are to occur, and there is no body that could pro-

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of Objects Launched into Outer Space, *opened for signature* Jan. 14, 1975, 28 U.S.T. 695, 1023 U.N.T.S. 15; Agreement Governing the Activities of States on the Moon and Other Celestial Bodies, *opened for signature* Dec. 18, 1979, 1363 U.N.T.S. 3.

[224] *See* Outer Space Treaty, *supra* note 12.

[225] *Id.* art. 9.

[226] *See generally id.*

[227] *See generally* Vienna Convention on the Law of Treaties, *opened for signature* May 23, 1969, 1155 U.N.T.S. 331.

[228] Michael C. Mineiro, *FY-1C and USA-193 ASAT Intercepts: An Assessment of Legal Obligations Under Article IX of the Outer Space Treaty*, 34 J. Space L. 321, 339 (2008).

[229] Sergio Marchisio, *Article IX*, *in* 1 Cologne Commentary on Space Law 169, 177 (Stephen Hobe, Berhard Schmidt-Tedd, Kai-Uwe Schrogl & Gerardine Meishan Goh eds., 2009).

[230] Mineiro, *supra* note 228, at 340.

vide an authoritative evaluation.[231] Thus, the threshold for an avoidable degree of "harmful contamination" is likely to be established primarily by future State practice.[232]

Nevertheless, it is clear that a major source of contamination of the outer space environment is space debris.[233] Space debris is defined by the European Space Agency (ESA) as "all nonfunctional, human-made objects, including fragments and elements thereof, in Earth orbit or re-entering into Earth's atmosphere."[234] As of February 2020, there were approximately 34,000 debris objects larger than 10 centimeters (cm), 900,000 thousand debris objects from 1 cm–10 cm, and 128 million debris objects from .1 cm–1 cm orbiting the Earth.[235] As highlighted in Part II, debris caused by the kinetic destruction of a space object could remain in orbit for decades or even centuries.[236]

Three relevant instances of State practice should be considered here: the 2007 destruction of satellite FY-1C by China,[237] the 2008 destruction of satellite USA-193 by the United States,[238] and the 2019 destruction of satellite Microsat-R by India.[239] These actions are the foremost examples of State practice in relation to Article 9 of the Outer Space Treaty and are relevant to considerations of harmful contamination.

As discussed in Part II, the Chinese destruction of FY-1C introduced more than 3,000 pieces of satellite debris into LEO—almost half of all traceable debris currently in LEO—most of which will remain in the outer space environment for up to a century.[240] This debris has significantly modified the LEO and

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[231] *Id.* at 348, 351.

[232] *Id.* at 352.

[233] *See Space Debris by the Numbers*, EUR. SPACE AGENCY (Feb. 2020), https://www.esa.int/Safety_Security/Space_Debris/Space_debris_by_the_numbers [perma.cc/AT8B-C7DN].

[234] *Space Debris: Frequently Asked Questions*, EUR. SPACE AGENCY, https://www.esa.int/Our_Activities/Space_Safety/Space_Debris/FAQ_Frequently_asked_questions [perma.cc/5EDP-FSF5].

[235] *Space Debris by the Numbers*, *supra* note 233.

[236] *See supra* Part II.

[237] *Id.*

[238] *U.S. Missile Hits 'Toxic Satellite'*, BBC NEWS (Feb. 21, 2008), http://news.bbc.co.uk/2/hi/7254540.stm [perma.cc/PC9F-Q9KQ].

[239] Vasudevan Mukunth, *Mission Shakti: India Likely Destroyed Microsat R Satellite in First ASAT Test*, WIRE (Mar. 27, 2019), https://science.thewire.in/space/mission-shakti-india-likely-destroyed-microsat-r-satellite-in-first-asat-test/ [perma.cc/Q99A-DLBN].

[240] Weeden, *supra* note 94, at 2–3.

polar orbit[241] environments, making orbits that intersect with the debris field dangerous to use.[242] Given the significant amount of debris created, Mineiro considers the destruction of FY-1C to satisfy the test of harmful contamination.[243] Relevantly, the destruction of space objects can be conducted at altitudes and with positional inclinations that can minimize harmful contamination.[244] In the case of FY-1C, it does not appear that there was any attempt to minimize harmful contamination by modifying the satellite's orbit so it was outside of the congested LEO.[245] Hence, there may be an argument that the Chinese violated the harmful contamination provision of Article 9.[246]

In a similar example of State practice, the United States used an ASAT to destroy an out-of-control satellite, USA-193, in "Operation Burnt Frost."[247] In contrast to the Chinese destruction of FY-1C, the United States publicly acknowledged that the destruction of the satellite would create harmful contamination in the form of space debris[248] and consequently took measures to destroy the satellite at a low orbit of just below an altitude of 250 km,[249] with impact reportedly on a downward angle,[250] so as to minimize the creation and persistence of space debris.[251] This is in line with the general principle that the further into space an object, including debris, is located, "the longer it will take to

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[241] *Types of Orbits*, *supra* note 96 ("Satellites in polar orbits usually travel past Earth from north to south rather than from west to east, passing roughly over Earth's poles. . . . Polar orbits are a type of low Earth orbit, as they are at low altitudes between 200 to 1000 km.").

[242] Mineiro, *supra* note 228, at 347.

[243] *Id.*

[244] *Id.* at 348.

[245] *Id.*

[246] *Id.*

[247] *U.S., USSR Pioneers of Anti-Satellite Weapons Technology*, FIN. EXPRESS (Mar 28, 2019), https://www.financialexpress.com/defence/us-ussr-pioneers-of-anti-satellite-weapons-technology/1529826/ [perma.cc/EJ5E-NJQF].

[248] U.S. Dep't of Def., *DoD News Briefing with Deputy National Security Advisor Jeffery, Gen. Cartwright and NASA Administrator Griffin (Feb. 14, 2008)*, *in* USA-193: SELECTED DOCUMENTS 51, 55 (P.J. Blount & Joanne Irene Gabrynowicz eds., 2009), http://airandspacelaw.olemiss.edu/pdfs/usa193-selected-documents.pdf [perma.cc/DU23-3PQU].

[249] *See* NASA Orbital Debris Program Off., *Satellite Breakups During First Quarter of 2008*, *in* USA-193: SELECTED DOCUMENTS, *supra* note 248, at 151, 152.

[250] Marco Langbroek, *Why India's ASAT Test Was Reckless*, DIPLOMAT (Apr. 30, 2019), https://thediplomat.com/2019/05/why-indias-asat-test-was-reckless/ [perma.cc/34P5-38XD].

[251] *See* U.S. Dep't of Def., *supra* note 248, at 51–53.

reenter Earth's atmosphere."[252] In the case of USA-193, the majority of debris re-entered Earth's atmosphere within an hour of interception, and the remaining debris was said to be in "short-lived" orbits, re-entering within a matter of months.[253] Unlike Chinese conduct in relation to the destruction of FY-1C, these actions are considered by Mineiro to be in accordance with the Article 9 obligation to avoid harmful contamination.[254]

In a recent example of State practice, in March 2019, India used an ASAT to destroy a satellite, Microsat-R, in a weapons test code-named "Mission Shakti."[255] Microsat-R was intercepted at a low orbit of approximately an altitude of 270 km, similar to the altitude of USA-193 at destruction.[256] In an official statement post-impact, India stated, "[t]he test was done in the lower atmosphere to ensure that there is no space debris. Whatever debris that is generated will decay and fall back onto the earth within weeks."[257] Further, an Indian official claimed that the ASAT hit Microsat-R "head-on . . . to ensure debris would not be a concern."[258] However, contrary to official statements, scientists consider that about 50% of tracked debris remained in orbit for forty-five weeks, and some debris will linger for almost two years.[259] Furthermore, scientists concluded that the ASAT hit Microsat-R on a "clear upwards angle," rather than head-on, which caused debris to travel into a range of higher orbital altitudes of 400 to 2200 km, placing debris into orbital altitudes more typical for satellites, and above the orbital altitude of the International Space Station (ISS).[260] NASA Administrator Jim

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[252] Mountin, *supra* note 1, at 115.

[253] *See* NASA Orbital Debris Program Off., *supra* note 249, at 151–52.

[254] *See* Mineiro, *supra* note 228, at 354.

[255] Mukunth, *supra* note 239.

[256] Vladimir Akhmetov, Vadym Savanevych & Evgen Dikov, Analysis of the Indian ASAT Test on 27 March 2019 (May 22, 2019) (manuscript), https://arxiv.org/pdf/1905.09659.pdf [perma.cc/MAF6-WPXJ].

[257] *Frequently Asked Questions on Mission Shakti, India's Anti-Satellite Missile Test Conducted on 27 March, 2019*, GOV'T OF INDIA MINISTRY OF EXTERNAL AFFS. (Mar. 27, 2019), https://www.mea.gov.in/press-releases.htm?dtl/31179/Frequently_Asked_Questions_on_Mission_Shakti_Indias_AntiSatellite_Missile_test_conducted_on_27_March_2019 [perma.cc/N6J6-TTTZ].

[258] *DRDO Defends 'Shakti' Test as Experts Say Indian ASAT Debris 'Threatens All LEO Sats'*, WIRE (Apr. 6, 2019), https://science.thewire.in/space/drdo-defends-shakti-test-as-experts-say-indian-asat-debris-threatens-all-leo-sats/ [perma.cc/6PH3-EWG8].

[259] *See* Langbroek, *supra* note 250.

[260] *Id.*; Akhmetov et al., *supra* note 256.

Bridenstine said the ASAT test increased the risk of small debris hitting the ISS by 44%.[261]

Therefore, debris created by the destruction of Microsat-R is significantly less, both in quantity and longevity, than debris created by the destruction of FY-1C. Nevertheless, the Indian ASAT test underscores the complexity associated with minimizing space debris upon kinetic destruction of a satellite. Although Microsat-R was destroyed at a low orbit, debris was still ejected into higher, congested orbits and could remain there for up to two years.[262] Moreover, the spread of the debris was worsened by the ASAT hitting Microsat-R at an upwards angle, rather than head-on or on a downward angle.[263] Nevertheless, the Indian ASAT test is almost certainly in accordance with the Article 9 obligation to avoid harmful contamination, given the high threshold for breach.

In sum, the Outer Space Treaty provides that States must pursue space activities so as to avoid harmful contamination of outer space, including through the creation of space debris. State practice indicates States must minimize harmful contamination when planning to kinetically destroy a satellite by intercepting a satellite while in its lowest possible orbit, head-on or at a downward angle.

### B. Debris Mitigation Guidelines

In addition to relevant provisions of the Outer Space Treaty, space debris mitigation guidelines have been adopted by the UN Committee on the Peaceful Uses of Outer Space (COPUOS)[264] and the Inter-Agency Space Debris Coordination Committee (IADC).[265] Although these guidelines are not themselves legally binding, they may well acquire the status of customary international law if sufficient State practice and *opinio juris* crystallizes around them.[266] The UN General Assembly has endorsed the

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[261] Helen Regan, *India Anti-Satellite Missile Test a 'Terrible Thing,' NASA Chief Says*, CNN (Apr. 2, 2019), https://www.cnn.com/2019/04/02/india/nasa-india-anti-missile-test-intl/index.html [perma.cc/XNT9-6NDM].

[262] Akhmetov et al., *supra* note 256; Langbroek, *supra* note 250.

[263] Akhmetov et al., *supra* note 256; Langbroek, *supra* note 250.

[264] Comm. on the Peaceful Uses of Outer Space, Rep. of the Sci. and Tech. Subcomm. on Its Forty-Fourth Session, U.N. Doc. A/AC/105/890, annex IV (2007).

[265] Inter-Agency Space Debris Coordination Comm. [IADC], *Space Debris Mitigation Guidelines*, IADC-02-01 (Sept. 2007).

[266] North Sea Continental Shelf (Fed. Rep. Ger./Den.; Fed. Rep. Ger./Neth.), Judgment, 1969 I.C.J. 3, 4 (Feb. 20).

COPUOS Space Debris Mitigation Guidelines.[267] The intentional destruction of space objects is addressed by UN COPUOS Guideline 4 as follows:

> Recognizing that an increased risk of collision could pose a threat to space operations, the intentional destruction of any on-orbit spacecraft and launch vehicle orbital stages or other harmful activities that generate long-lived debris should be avoided. When intentional break-ups are necessary, they should be conducted at sufficiently low altitudes to limit the orbital lifetime of resulting fragments.[268]

Similarly, paragraph 5.2.3 of the IADC guidelines states: "Intentional destruction of a spacecraft or orbital stage (self-destruction, intentional collision, etc.), and other harmful activities that may significantly increase collision risks to other spacecraft and orbital stages should be avoided. For instance, intentional break-ups should be conducted at sufficiently low altitudes so that orbital fragments are short lived."[269]

The standard of care that these guidelines set out is demonstrated by the destruction of USA-193. Prior to the engagement of USA-193, NASA's then-chief scientist for orbital debris, Nicholas Johnson, made a presentation on behalf of the United States to the UN COPUOS to describe the anticipated results of the engagement.[270] The presentation was used to emphasize the United States' commitment to the debris mitigation guidelines and to note that the engagement would take place at a very low altitude, with more than 99% of debris predicted to re-enter Earth's atmosphere within seven days so the operation would be "fully compliant" with UN COPUOS Guideline 4.[271] Further, the United States stated that the engagement would not significantly increase collision risks to other spacecraft and orbital stages, thus also making the engagement "fully compliant" with paragraph 5.2.3 of the IADC guidelines.[272]

Therefore, the non-binding UN COPUOS debris mitigation guidelines explicitly state what may be inferred from Article 9 of

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[267] G.A. Res. 62/217, International Cooperation in the Peaceful Uses of Outer Space, ¶ 26 (Feb. 1, 2008).

[268] Comm. on the Peaceful Uses of Outer Space, *supra* note 264, annex IV, guideline 4.

[269] Inter-Agency Space Debris Coordination Comm., *supra* note 265, ¶ 5.2.3.

[270] Nat'l Aeronautics & Space Admin., *Space Debris Assessment for USA-193*, *in* USA-193: SELECTED DOCUMENTS, *supra* note 248, at 65.

[271] *Id.* at 67–68.

[272] *Id.* at 69.

the Outer Space Treaty: intentional destruction of space objects must be avoided wherever possible, and if unavoidable, must be carried out (where feasible) at a sufficiently low altitude to mitigate debris creation and the harmful contamination of outer space.

In sum, ISL mandates that all military space activities must be guided by the principle of non-contamination. Specifically, States must conduct space activities in a manner so as to avoid the harmful contamination of outer space,[273] including through the creation of space debris.[274] The UN COPUOS and IADC debris mitigation guidelines explicitly state that the intentional destruction of a space object that would create long-lived debris should be avoided.[275] However, where destruction is necessary, it should be conducted at a sufficiently low altitude to limit the orbital lifetime of space debris.[276] State practice has yet to clearly define the boundaries of a State's obligations regarding the avoidance of harmful contamination.[277] Where there has been no attempt to minimize debris creation when destroying a satellite, it is likely that the harmful contamination provision will be violated.[278] In contrast, where measures have been taken to minimize the creation of debris, such as intercepting a satellite head-on or on a downward angle at a low orbit, a violation is less likely to be established.[279]

With regard to the targeting of a satellite in an IAC, ISL requires that a State conduct its operation so as to avoid harmful contamination of the outer space environment.[280] The baseline response to this principle would be outright avoiding kinetic destruction of the satellite, due to the consequent harmful contamination of the outer space environment. In the alternative, if the destruction of the satellite is essential, the State should take all available measures to minimize the creation of space debris.[281] In particular, this would include destroying the satellite in

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[273] Outer Space Treaty, *supra* note 12, art. 9.

[274] Marchisio, *supra* note 229, at 177.

[275] Comm. on the Peaceful Uses of Outer Space, *supra* note 264, annex IV, guideline 4; Inter-Agency Space Debris Coordination Comm., *supra* note 265, ¶ 5.2.3.

[276] Inter-Agency Space Debris Coordination Comm., *supra* note 265, ¶ 5.2.3.

[277] *See* Mineiro, *supra* note 228, at 354.

[278] *Id.* at 348.

[279] *Id.* at 354.

[280] Outer Space Treaty, *supra* note 12, art. 9.

[281] The potential relevance of international environmental law is outside the scope of this Article. However, this conclusion can be supported as an application

such a manner as to mitigate the creation of persistent space debris. However, State practice has yet to clarify whether the soft law instruments that contain this requirement go so far as to require a State to abstain from an attack that can only be carried out at a higher altitude.

## V. RECONCILIATION OF REGIMES

Having identified IHL, IHRL and ISL norms that are relevant to the targeting of a satellite in an IAC—the law of targeting, the right to life, and the harmful contamination of outer space—this Article will now discuss how these norms may be reconciled. This Part will first outline the law enforcement and conduct of hostilities paradigms and will compare how relevant principles are treated under each. Next, the co-application of IHRL and ISL alongside IHL in times of armed conflict will be established. The resolution of normative conflict using the *lex specialis* maxim and the interpretive process of harmonization will then be explored.

### A. Law Enforcement Paradigm vs. Conduct of Hostilities Paradigm

Relevant to this discussion is the tension between two legal paradigms: (1) the law enforcement paradigm, reflecting IHRL, and (2) the conduct of hostilities paradigm, reflecting IHL.[282]

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of the precautionary principle, which requires States to seek to avoid environmental degradation—the classic statement of the principle is found in the 1992 Rio de Janeiro Declaration:

> In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

U.N. Conference on Environment and Development, *Rio Declaration on Environment and Development*, principle 15, U.N. Doc A/CONF. 151/26 (Vol. 1), annex I (Aug. 12, 1992). This principle has been regarded as representing customary international law. *See* Arie Trouwborst, Precautionary Rights and Duties of States 7 (2006). For examination of the precautionary principle in the context of international space law, see Paul B. Larsen, *Application of the Precautionary Principle to the Moon*, 71 J. Air L. & Com. 295, 297–306 (2006); Francis Lyall & Paul B. Larsen, Space Law: A Treatise 174, 233, 249, 255 (2d ed. 2018).

[282] *See* Int'l Comm. of the Red Cross, The Use of Force in Armed Conflicts: Interplay Between the Conduct of Hostilities and Law Enforcement Paradigms 1 (Gloria Gaggioli ed., 2013); *see also* Eric Hendrik Pouw, International Human Rights Law and the Law of Armed Conflict in the Context of Counterinsurgency: With a Particular Focus on Targeting and Operational

Traditionally, the use of force in armed conflict has been regarded as governed by the conduct of hostilities paradigm where, as detailed in Part II, individuals may be lawfully killed in pursuit of a military objective—so long as the principles of distinction, proportionality, precautions, and constant care are complied with.[283] Meanwhile, under the law enforcement paradigm, lethal force may be used only in limited circumstances such as to maintain or restore public security, law, and order—and only if the principles of necessity, proportionality, and precautions are complied with and an effective ex post facto investigation is carried out.[284] Importantly, under the law enforcement paradigm, lethal force may only be used as a measure of last resort if lesser forms of force would be insufficient; in the armed conflict paradigm, combatants may be subject to lethal force in the first instance, although civilians enjoy protection up to the point that they may suffer in the proportionate pursuit of lawful military objectives.[285] Evidently, the conduct of hostilities paradigm contemplates the killing of combatants and incidental loss of civilian lives in circumstances that the law enforcement paradigm does not. The principles demonstrated above—proportionality, necessity, and precautions—are common to both legal regimes but operate in different ways and have different meanings in each of the two paradigms. Under international law, there has been considerable debate as to which paradigm should be applied, even in armed conflict situations.[286]

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DETENTION 333 (2013), https://dare.uva.nl/search?identifier=1bd1879d-696c-4eeb-975e-eefa9c76ea18 [perma.cc/PG7F-WVTK].

[283] *See supra* Part II.

[284] *See supra* Section III.B.

[285] *See, e.g.*, Geoffrey Corn, *Mixing Apples and Hand Grenades: The Logical Limit of Applying Human Rights Norms to Armed Conflict*, 1 J. INT'L HUMANITARIAN LEGAL STUD. 52, 74–84 (2010); Marco Sassòli & Laura M. Olson, *The Relationship Between International Humanitarian and Human Rights Law Where It Matters: Admissible Killing and Internment of Fighters in Non-International Armed Conflicts*, 90 INT'L REV. RED CROSS 599, 605–16 (2008); Kenneth Watkin, *Maintaining Law and Order During Occupation: Breaking the Normative Chains*, 41 ISR. L. REV. 175, 188–92 (2008).

[286] *See* INT'L COMM. OF THE RED CROSS, *supra* note 282, at 4–12; Gloria Gaggioli, *The Use of Force in Armed Conflicts: Conduct of Hostilities, Law Enforcement, and Self-Defense*, *in* COMPLEX BATTLESPACES: THE LAW OF ARMED CONFLICT AND THE DYNAMICS OF MODERN WARFARE, *supra* note 82, at 61.

## B. Co-Application of Regimes

### *1. Co-Application of IHRL and IHL*

A growing body of international law confirms that IHRL can continue to apply during situations of armed conflict, alongside the provisions of IHL. In 1996, in its advisory opinion, *Legality of the Threat or Use of Nuclear Weapons*,[287] the ICJ rejected the submission that the ICCPR applies only during peacetime and that deprivation of life in armed conflict is solely governed by IHL:

> [T]he protection of the [ICCPR] does not cease in times of war, except by operation of Article 4 of the Covenant whereby certain provisions may be derogated from in a time of national emergency. Respect for the right to life is not, however, such a provision. In principle, the right not arbitrarily to be deprived of one's life also applies in hostilities.[288]

This conclusion was affirmed in 2004 in *Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory*,[289] where the ICJ confirmed that "the protection offered by human rights conventions does not cease in case of armed conflict,"[290] and was further upheld in 2005 in *Armed Activities on the Territory of the Congo*.[291] Thus, the ICJ has confirmed the application of IHRL in situations of armed conflict.

The more difficult question, which is the subject of extended analysis below, is how the application of IHRL in armed conflict situations is to work in practice. The 2011 decision of the ECtHR in *Al-Skeini v. United Kingdom*[292] raised this issue starkly by applying the requirements of IHRL without any consideration of their interaction with IHL rules also applicable to the situation.[293] For many observers, this case represented a water-

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[287] Legality of Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226 (July 8).

[288] *Id.* ¶ 25.

[289] Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory, Advisory Opinion, 2004 I.C.J. 136 (July 9).

[290] *Id.* ¶ 106.

[291] Armed Activities on Territory of Congo (Dem. Rep. Congo v. Uganda), Judgment, 2005 I.C.J. 168, ¶¶ 216–217 (Dec. 19).

[292] Al-Skeini v. United Kingdom, 2011-IV Eur. Ct. H.R. 99.

[293] *Id.* ¶ 163. In a manner almost dismissive of the reality of the armed conflict situation that prevailed, the ECtHR stated:

> While remaining fully aware of this context, the [ECtHR]'s approach must be guided by the knowledge that the object and purpose of the [ECHR] as an instrument for the protection of individual human beings requires that its provisions be interpreted and applied so as to make its safeguards practical and effective.

shed moment because it threatened that IHL principles might be displaced by those of IHRL, even in an armed conflict situation. The question of how the two regimes can be applied together, in a manner sensitive to both, will be addressed below.

### *2. Co-Application of ISL and IHL*

The application of ISL during armed conflict has been considered to a much lesser degree than IHL. Broadly, the ICJ has stated that IHL "applies to all forms of warfare and to all kinds of weapons, those of the past, those of the present and those of the future,"[294] which supports the application of IHL to armed conflict in outer space. More specifically, the International Committee of the Red Cross has stated that "any hostile use of outer space in armed conflict . . . must comply with IHL, in particular its rules of distinction, proportionality and precautions in attack."[295] Moreover, numerous scholars acknowledge that ISL continues to operate during times of armed conflict.[296] As recently argued by Stephens and Steer, "it would seem certain that in a time of armed conflict, the [Outer Space Treaty] would continue to apply."[297]

Hence, the applicability of IHRL and ISL to situations of armed conflict in outer space regulated by IHL has been confirmed. What must consequently be considered is how the co-application of IHL, IHRL, and ISL provisions can be made to work in practice. The next Sections first consider the interpretive techniques that may be used to achieve co-application of the three regimes, before applying these techniques of interpretation to the targeting of a satellite in an international armed conflict.

### *3.* Lex Specialis

The maxim *lex specialis* is a widely accepted technique used to resolve normative conflicts in international law.[298] In essence,

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*Id.* ¶ 162.

[294] Legality of Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226, ¶ 86 (July 8).

[295] *Weapons: ICRC Statement to the United Nations, 2015*, *supra* note 18.

[296] *See, e.g.*, Stephens & Steer, *supra* note 2, at 77; *see generally* Schmitt, *supra* note 9; Mačák, *supra* note 9.

[297] Stephens & Steer, *supra* note 2, at 83.

[298] Int'l Law Comm'n, Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law, ¶ 56, U.N. Doc A/CN.4/L.682 34 (Apr. 13, 2006).

the maxim provides that if a matter is regulated by both a general norm and a specific rule, the specific should prevail over the general.[299] Notably, characterization of a treaty as *lex specialis* does not require a conflicting treaty to be set aside.[300] Rather, the other instrument "remains 'in the background,' controlling the way the later and more specific rules are being interpreted and applied."[301] While the *lex specialis* maxim ostensibly provides a neat resolution to normative conflict, it is appropriately criticized for being "too absolute."[302] The maxim has been described as unable "to achieve a full understanding of the applicable legal standards and the nature of the relationship between special rules."[303] Moreover, a majority of commentators agree that the principle of *lex specialis* cannot determine that an entire body of law can be characterized as being more specific than another area of law.[304] Thus, rather than viewing an entire legal regime as *lex specialis* to the entirety of another legal regime, it is more appropriate to address the relationship between relevant norms on a case-by-case basis.[305] In any event, a norm that is identified as more general will nevertheless remain relevant to the interpretation of the specific norm, and thus be "allowed to influence 'from the background' the interpretation and application of the prioritized law."[306] The *lex specialis* maxim may, therefore, be a useful interpretive technique, but its proper application will be a complex matter of determining the potential scope for regime interaction in any given situation, not a simple matter of applying the principles of one regime to the exclusion of others.

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[299] *Id.*

[300] *Id.* ¶ 31.

[301] *Id.*

[302] *Id.* ¶ 62.

[303] Conor McCarthy, *Legal Conclusion or Interpretive Process?* Lex Specialis *and the Applicability of International Human Rights Standards, in* INTERNATIONAL HUMANITARIAN LAW AND HUMAN RIGHTS LAW: TOWARDS A NEW MERGER IN INTERNATIONAL LAW, *supra* note 15, at 101, 103.

[304] *See, e.g.*, Anja Lindroos, *Addressing Norm Conflicts in a Fragmented Legal System: The Doctrine of* Lex Specialis, 74 NORDIC J. INT'L L. 27, 44 (2005); Noam Lubell, *Challenges in Applying Human Rights Law to Armed Conflict*, 87 INT'L REV. RED CROSS 737, 751–53 (2005); Martti Koskenniemi, Int'l Law Comm'n, *Fragmentation of International Law: Difficulties Arising from the Diversification and Expansion of International Law*, ¶¶ 111–12, U.N. Doc. No. A/CN.4/L/682 (Apr. 13, 2006); PANOS MERKOURIS, ARTICLE 31(3)(C) VCLT AND THE PRINCIPLE OF SYSTEMIC INTEGRATION: NORMATIVE SHADOWS IN PLATO'S CAVE 214–17 (2015).

[305] *See* MARKO MILANOVIC, EXTRATERRITORIAL APPLICATION OF HUMAN RIGHTS TREATIES 234 (2011).

[306] Int'l Law Comm'n, *supra* note 298, ¶ 19.

*4. Harmonization*

The individual legal regimes of IHL, IHRL, and ISL may be reconciled through application of the conceptual approach of harmonization, or systemic integration.[307] Harmonization was examined by the International Law Commission (ILC) in its study, *Fragmentation of International Law*,[308] and is implicitly recognized in Article 31(3)(c) of the Vienna Convention on the Law of Treaties, which provides the following rule of treaty interpretation: "There shall be taken into account, together with the context . . . [a]ny relevant rules of international law applicable in the relations between the parties."[309] This approach is reflected in the *Oil Platforms* judgment, where the ICJ held that "[t]he application of [other] relevant rules of international law . . . forms an integral part of the task of interpretation."[310] This principle also found expression in *Hassan v. United Kingdom*,[311] where the ECtHR rejected the UK's argument that, as *lex specialis*, IHL barred jurisdiction under the ECHR.[312] Instead, the court held that "in situations of international armed conflict, the safeguards under [IHRL] continue to apply, albeit interpreted against the background of the provisions of international humanitarian law."[313] Moreover, the court interpreted an ECHR provision in light of a comparable IHL provision,[314] implicitly characterizing the relationship between the

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[307] *E.g.*, Campbell McLachlan, *The Principle of Systemic Integration and Article 31(3)(c) of the Vienna Convention*, 54 INT'L & COMP. L. Q. 279, 280, 286 (2005); Matthew Stubbs, *Human Rights Obligations as a Collateral Limit on the Powers of the Security Council*, *in* IMAGINING LAW: ESSAYS IN CONVERSATION WITH JUDITH GARDAM 61, 67–68 (Dale Stephens & Paul Babie eds., 2016); Vassilis P. Tzevelekos, *The Use of Article 31(3)(c) of the VCLT in the Case Law of the ECtHR: An Effective Anti-Fragmentation Tool or a Selective Loophole for the Reinforcement of Human Rights Teleology?*, 31 MICH. J. INT'L L. 621, 624 (2010).

[308] Int'l Law Comm'n, *supra* note 298, ¶¶ 37–43.

[309] Vienna Convention on the Law of Treaties, *supra* note 227, art. 31(3)(c); *see also* McLachlan, *supra* note 307, at 280; MERKOURIS, *supra* note 304, at 214.

[310] Oil Platforms (Iran v. U.S.), Judgment, 2003 I.C.J. Rep. 161 ¶ 41 (Nov. 6).

[311] Hassan v. United Kingdom, 2014-VI Eur. Ct. H.R. 1.

[312] *Id.* ¶¶ 76–77.

[313] *Id.* ¶ 104.

[314] *Id.* ¶ 106.

> As regards procedural safeguards, the [ECtHR] considers that, in relation to detention taking place during an international armed conflict, Article 5 §§ 2 and 4 must also be interpreted in a manner which takes into account the context and the applicable rules of international humanitarian law. Articles 43 and 78 of the Fourth Geneva Convention provide that internment "shall be subject to periodical review, if possible every six months, by a competent body."

two regimes as symbiotic where similar provisions exist—demonstrating a possibility for IHL and IHRL to apply in a harmonized way, where their requirements can be reconciled.

In *Fragmentation of International Law*, the ILC observed that norms which appear to "point in diverging directions" may be "adjust[ed]" and subsequently applied in such a way that any overlap or conflict between the norms will cease.[315] To adjust conflicting norms, the ILC noted that they should be read from the perspective of their contribution to some generally shared "systemic"[316] or "coherent objective,"[317] which consequently enables the interpreter to prioritize a particular goal.[318] This is the "accommodation" of competing values that Judges Higgins, Kooijmans, and Buergenthal advocated in the *Arrest Warrant* case, instead of "the triumph of one norm over the other."[319]

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> Whilst it might not be practicable, in the course of an international armed conflict, for the legality of detention to be determined by an independent "court" in the sense generally required by Article 5 § 4 . . . nonetheless, if the Contracting State is to comply with its obligations under Article 5 § 4 in this context, the "competent body" should provide sufficient guarantees of impartiality and fair procedure to protect against arbitrariness.

*Id.*

[315] Int'l Law Comm'n, *supra* note 298, ¶ 43.

[316] *Id.* ¶ 412.

[317] *Id.* ¶ 419.

[318] *Id.*

[319] Arrest Warrant of 11 April 2000 (Dem. Rep. Congo v. Belg.), Judgment, 2002 I.C.J. 3, ¶ 79 (Feb. 14, 2002) (Higgins, J., Koojimans, J. & Buergenthal, J.). Similarly, "[i]t is unwise to stick stubbornly to either normative regime in the face of facts that point to a more nuanced approach." Watkin, *supra* note 285, at 199. "[T]he enticing prospect of averting conflict of norms, by enabling the harmonization of rules rather than the application of one norm to the exclusion of another." McLachlan, *supra* note 307, at 286. Of course, the ICJ had once held, in the context of the application of Article 6 of the ICCPR in armed conflict, that "what is an arbitrary deprivation of life, however, then falls to be determined by the applicable *lex specialis*, namely, the law applicable in armed conflict which is designed to regulate the conduct of hostilities." Legality of Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226, ¶ 25 (July 8). It has clearly moved beyond that view more recently, stating "[a]s regards the relationship between international humanitarian law and human rights law, there are thus three possible situations: some rights may be exclusively matters of international humanitarian law; others may be exclusively matters of human rights law; yet others may be matters of both these branches of international law." Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory, Advisory Opinion, 2004 I.C.J. 136, ¶ 106 (July 9). At the very least, Lubell correctly notes increasing acceptance that "human rights law is not entirely displaced" even if IHL is the *lex specialis* relating to armed conflict. Lubell, *supra* note 304, at 737–38.

This approach to harmonization has some resonance with Dworkin's concept of law as integrity, given Dworkin's instruction to treat individual parts of the law as "part of a coherent theory"[320] and to interpret the law on the assumption "that the law is structured by a coherent set of principles"[321] in order "to make the law coherent as a whole, so far as" possible.[322] Harmonization of legal regimes seeks the same goal as Dworkin's "law as integrity" thesis—the application of "a single, coherent set of principles";[323] for the same reason, "integrity demands that [legal] standards be seen as coherent, as the State speaking with a single voice."[324] Of course, harmonization is much easier to describe in the abstract than to apply in practice; as Dworkin acknowledges, it may not always be possible to achieve in reality.[325] The endeavour, however, is necessary if the coherent application of international law to armed conflict in outer space is to be achieved.

Important attempts to harmonize competing international legal regimes have been made by the ECtHR in two contexts.[326] First, it has considered the relationship between the ECHR and the law of sovereign immunity. In *Al-Adsani v. United Kingdom*, *Fogarty v. United Kingdom*, and *McElhinney v. Ireland*, the court stated in each case that "[t]he [ECHR], including Article 6, cannot be interpreted in a vacuum. The [ECtHR] . . . must also take the relevant rules of international law into account. . . . The [ECHR] should so far as possible be interpreted in harmony

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[320] RONALD DWORKIN, LAW'S EMPIRE 245 (1986) ("Law as integrity . . . requires a judge to test his interpretation of any part of the great network of political structures and decisions of his community by asking whether it could form part of a coherent theory justifying the network as a whole.").

[321] *Id.* at 243.

> Law as integrity asks judges to assume, so far as this is possible, that the law is structured by a coherent set of principles about justice and fairness and procedural due process, and it asks them to enforce these in the fresh cases that come before them, so that each person's situation is fair and just according to the same standards.

*Id.*

[322] *Id.* at 251. In other words, Dworkin's "law as integrity" thesis aims "to produce a grand interpretation of the law of a legal system that embodies a coherent conception of justice, fairness, and procedural due process." Barbara Baum Levenbook, *The Sustained Dworkin*, 53 U. CHI. L. REV. 1108, 1121 (1986).

[323] DWORKIN, *supra* note 320, at 166.

[324] *Id.* at 218.

[325] *Id.* at 245.

[326] For a general discussion of the ECtHR's attempts to harmonize see Tzevelekos, *supra* note 307, at 645–60.

with other rules of international law of which it forms part."[327] Accordingly, the ECtHR held that "measures . . . which reflect generally recognised rules of public international law on State immunity cannot in principle be regarded as imposing a disproportionate restriction" in breach of Article 6 of the ECHR.[328]

Second, the ECtHR has addressed the relationship between the ECHR and the UN Charter obligation to carry out decisions of the Security Council.[329] As the court explained in *Nada v. Switzerland*, "diverging commitments must . . . be harmonised as far as possible."[330] The ECtHR was more expansive in Al-Dulimi v. Switzerland, explaining that:

> Where a number of apparently contradictory instruments are simultaneously applicable . . . endeavour to construe them in such a way as to coordinate their effects and avoid any opposition between them. Two diverging commitments must therefore be harmonised as far as possible so that they produce effects that are fully in accordance with existing law.[331]

The ECtHR attempted this harmonization in *Al-Dulimi* by (1) first looking to identify a shared purpose in the competing regimes;[332] (2) then interpreting the relevant provisions "in a spirit of systemic harmonisation"[333] to avoid conflict where possible by focusing on attaining shared purpose where it can be found; and (3) finally, seeking "to strike a fair balance"[334] between the objectives underlying inconsistent norms.[335]

Accordingly, in order to determine how IHL, IHRL, and ISL will apply to targeting, it is necessary to commence by identifying themes shared by the three bodies of law. Arguably, the most appropriate shared theme is the concept of fundamental stan-

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[327] Al-Adsani v. United Kingdom, 2001-XI Eur. Ct. H.R. 79, ¶ 55; Fogarty v. United Kingdom, 2001-XI Eur. Ct. H.R. 157, ¶ 35; McElhinney v. Ireland, 2001-XI Eur. Ct. H.R. 37, ¶ 36.

[328] *Al-Adsani*, 2001-XI Eur. Ct. H.R. ¶ 56; *Fogarty*, 2001-XI Eur. Ct. H.R. ¶ 36; *McElhinney*, 2001-XI Eur. Ct. H.R. ¶ 37.

[329] U.N. Charter art. 25; *see, e.g.*, Stubbs, *supra* note 307, at 67–68.

[330] Nada v. Switzerland, 2012-V Eur. Ct. H.R. 213, ¶ 170.

[331] Al-Dulimi v. Switzerland, App. No. 5809/08, ¶ 138 (June 21, 2016), http://hudoc.echr.coe.int/eng?i=001-164515 [perma.cc/U9EB-ZV3F].

[332] *Id.* ¶¶ 139–40.

[333] *Id.* ¶ 140.

[334] *Id.* ¶ 146.

[335] An alternative description is an interpretive process that "takes particular account of the interplay between the objects and purposes of the normative paradigms relative to the prevailing facts to which both apply." POUW, *supra* note 282, at 348.

dards of humanity.[336] ISL plainly promotes peaceful exploration of outer space for the benefit of all humanity,[337] and IHL and IHRL "share as a basis a fundamental concern for humanity,"[338] evident in IHL's balancing of its two foundational principles of military necessity and humanity,[339] and in IHRL's foundational aim of protecting human life and dignity.[340] Accordingly, in situations of armed conflict in outer space, provisions of IHRL or ISL that promote fundamental standards of humanity should be interpreted in such a way as to influence the humanitarian features of IHL.[341] The next Part will explore how the approach of harmonization could be applied to the law regulating targeting in outer space.

## VI. CO-APPLICATION OF REGIMES: HARMONIZATION AND *LEX SPECIALIS*

The previous Part established that the interpretative tool of *lex specialis* and the process of harmonization can be used to resolve instances of normative conflict.[342] This Part discusses compara-

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[336] For an overview of the concept of the fundamental standards of humanity, see Marco Odello, *Fundamental Standards of Humanity: A Common Language of International Humanitarian Law and Human Rights Law*, *in* INTERNATIONAL HUMANITARIAN LAW AND HUMAN RIGHTS LAW: TOWARDS A NEW MERGER IN INTERNATIONAL LAW, *supra* note 15, at 15–56. This is not to suggest that humanity is the only important consideration in any of these regimes, but that it is a shared consideration relevant to all of them.

[337] *E.g.*, Outer Space Treaty, *supra* note 12, art. 1 ("The exploration and use of outer space, including the Moon and other celestial bodies, shall be carried out for the benefit and in the interests of all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind."). For further discussion, see Freeland & Jakhu, *The Intersection between Space Law and International Human Rights Law*, *supra* note 14, at 225.

[338] RENÉ PROVOST, INTERNATIONAL HUMAN RIGHTS AND HUMANITARIAN LAW 5 (2002); *see generally* JEAN PICTET, HUMANITARIAN LAW AND THE PROTECTION OF WAR VICTIMS (1975); Dale Stephens, *Human Rights and Armed Conflict–The Advisory Opinion of the International Court of Justice in the Nuclear Weapons Case*, 4 YALE HUM. RTS. & DEV. L.J. 1 (2001).

[339] *See* DINSTEIN, *supra* note 25, at 13.

[340] *See* Antônio Augusto Cançado Trindade, *Some Reflections on the Principle of Humanity in Its Wide Dimension*, *in* RESEARCH HANDBOOK ON HUMAN RIGHTS AND HUMANITARIAN LAW 188, 188–89 (Robert Kolb & Gloria Gaggioli eds., 2013).

[341] Stephens, *supra* note 9, at 96.

[342] Of course, there will be some instances of irreconcilable conflict. *See, e.g.*, Marko Milanovic, *Norm Conflicts, International Humanitarian Law, and Human Rights Law*, *in* INTERNATIONAL HUMANITARIAN LAW AND INTERNATIONAL HUMAN RIGHTS LAW 95, 108–13 (Orna Ben-Naftali ed., 2011). As Milanovic explains, these can occur because "states, like people, are perfectly capable of assuming contradictory commitments." *Id.* at 115.

ble norms in IHL, IHRL, and ISL (as identified in Parts II, III and IV respectively) and determines how IHRL and ISL norms can influence the interpretation and application of IHL in pursuit of the promotion of humanitarianism. It should be remembered that the core of what IHL provides is not likely to change in this process—as the ICJ stressed in *Legality of the Threat or Use of Nuclear Weapons*, IHL "applies to all forms of warfare and to all kinds of weapons, those of the past, those of the present and those of the future."[343] However, IHRL and ISL norms may influence IHL norms "from the background," supplementing or complementing the interpretation and application of IHL.[344] After all, as the ICJ has repeatedly emphasized with respect to the relationship between IHL and IHRL, it is necessary "to take into consideration both these branches of international law,"[345] and "both branches of international law . . . would have to be taken into consideration" in determining the law applicable in an armed conflict.[346]

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[343] Legality of Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226, ¶ 86 (July 8).

[344] Int'l Law Comm'n, *supra* note 298, ¶ 19; Quénivet, *supra* note 15, at 9–10. Stated in other words, it may be "necessary to look to human rights norms to not merely inform interpretation of law of armed conflict, but to add proverbial flesh to the bones of the law of armed conflict regulatory framework." Corn, *supra* note 285, at 62.

[345] Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory, Advisory Opinion, 2004 I.C.J. 136, ¶ 106 (July 9).

[346] Armed Activities on the Territory of the Congo (Dem. Rep. Congo v. Uganda), Judgment, 2005 I.C.J. 168, ¶ 216 (Dec. 19). A significant body of scholarship now addresses the interaction of IHL and IHRL in the terrestrial domain. *See generally* Sean Aughey & Aurel Sari, *Targeting and Detention in Non-International Armed Conflict:* Serdar Mohammed *and the Limits of Human Rights Convergence*, 91 INT'L L. STUD. 60 (2015); Daniel Bethlehem, *The Relationship Between International Humanitarian Law and International Human Rights Law in Situations of Armed Conflict*, 2 CAMBRIDGE J. INT'L & COMP. L. 180 (2013); BOOTHBY, *supra* note 101, at 317–90; Corn, *supra* note 285; Robert Cryer, *The Interplay of Human Rights and Humanitarian Law: The Approach of the ICTY*, 14 J. CONFLICT & SEC. L. 511 (2010); Alon Margalit, *Recent Trends in the Application of Human Rights and Humanitarian Law: Are States Losing Patience?*, 7 J. INT'L HUMANITARIAN LEGAL STUD. 156 (2016); David Luban, *Human Rights Thinking and the Laws of War*, *in* THEORETICAL BOUNDARIES OF ARMED CONFLICT AND HUMAN RIGHTS 45 (Jens Ohlin ed., 2016); Lubell, *supra* note 304; Sarah McCosker, *The 'Interoperability' of International Humanitarian Law and Human Rights Law: Evaluating the Legal Tools Available to Negotiate their Relationship*, *in* INTERNATIONAL LAW IN THE NEW AGE OF GLOBALISATION 145 (Andrew Byrnes, Mika Hayashi & Christopher Michaelsen eds., 2013); Milanovic, *supra* note 342; Sassòli & Olson, *supra* note 285; Marco Sassòli, *The Role of Human Rights and International Humanitarian Law in New Types of Armed Conflicts*, *in* INTERNATIONAL HUMANITARIAN LAW AND INTERNATIONAL HUMAN RIGHTS LAW, *supra* note 342, at 34; Watkin, *supra* note 285.

Accordingly, the first step will be to examine whether competing regimes can be harmonized to avoid normative conflict and produce a coherent application of all applicable rules. It is only if they cannot do so that the second step—reference to the *lex specialis* maxim—will be needed in order to identify a regime that will receive priority, but which may still be modified or supplemented by principles from the *lex generalis*. As Milanovic has stated, "*lex specialis* would operate as a rule of norm conflict resolution, so that IHL would displace or qualify the conflicting rule of IHRL *to the extent strictly required* to resolve the conflict."[347] This latter step accepts the reality that "there are limits to what legitimate methods of interpretation can do to harmonize IHL and IHRL,"[348] but the primary question remains one of determining how far applicable regimes can be harmonized. This Part pursues both those interpretive approaches. In doing so, it is worthwhile to recall Milanovic's statement regarding the relationship of IHL and IHRL: "[a] large part of human rights law as interpreted in peacetime will have to be read down, to a greater or lesser extent, in order to be effectively applied in wartime."[349] Similarly, the *Oslo Manual* concludes that "the principles and rules of [IHL] are the *lex specialis* during armed conflict and prevail over the general law of Outer Space."[350] Accordingly, the inquiry which follows will at times conclude that the content of a particular legal requirement is supplied entirely by IHL as *lex specialis*. More often, however, there may be some scope to incorporate normative elements from ISL and IHRL in conjunction with IHL, achieving a harmonization of the principles from the three relevant normative regimes. This Part therefore identifies the value-add arising from co-application of the regimes, by considering which principles may be picked up from ISL and IHRL to supplement or complement IHL rules applicable to the targeting of a satellite in outer space.

### A. Necessity

Under IHL, there is a presumption that lethal force may be used against military objectives.[351] In essence, lethal force may

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[347] Marko Milanovic, *The Lost Origins of* Lex Specialis*: Rethinking the Relationship between Human Rights and International Humanitarian Law, in* Theoretical Boundaries of Armed Conflict and Human Rights, *supra* note 346, at 106.

[348] Milanovic, *supra* note 342, at 97.

[349] *Id.* at 106.

[350] Dinstein & Dahl, *supra* note 116, at 5.

[351] *See* Quénivet, *supra* note 15, at 341.

necessarily be used at any time to pursue a military advantage.[352] Conversely, IHRL only permits the use of lethal force as a last resort in circumstances of absolute necessity in order to pursue specified legitimate aims.[353] Thus, the two regimes appear to be fundamentally inconsistent on this point. IHRL is therefore unable to be meaningfully applied in any way that is complementary to the relevant IHL, and harmonization of the regimes will not be possible. IHL will therefore remain *lex specialis* regarding necessity, with pursuit of a military advantage remaining key.[354]

Accordingly, a satellite will be a targetable military objective in IHL if it makes an effective contribution to military action through its nature, location, purpose, or use and if its destruction offers a definite military advantage.[355] At this point in the analysis, neither ISL nor IHRL has been capable of affecting the IHL rules that would regulate the necessity of targeting a satellite.

### B. Proportionality

The principle of proportionality in IHL mandates that an attack must not cause excessive incidental damage to civilians or civilian objects, as measured against the anticipated concrete and direct overall military advantage.[356] Belligerents must identify collateral damage that is reasonably foreseeable.[357] Thus, IHL contemplates the consequences of an attack in light of the foreseeability of certain outcomes.[358] Only collateral damage that is either a direct consequence or a reasonably foreseeable indirect consequence must be considered, rather than collateral damage that is too speculative.[359]

In the space environment, attacks against dual-use space objects will likely result in collateral damage to civilians and civilian objects on Earth.[360] However, it will often prove difficult to determine the foreseeable collateral damage that will result from

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[352] *See id.*

[353] ECHR, *supra* note 165, art. 2(2)(a)–(c).

[354] A similar conclusion is reached by Milanovic, *supra* note 342, at 118–21.

[355] *See supra* Sections II.A.1–2.

[356] API, *supra* note 23, arts. 51(5), 57(2)(a)(iii), 57(2)(b).

[357] *See* Prosecutor v. Galić, Case No. IT-98-29-T, Judgment and Opinion, ¶¶ 190–91 (Int'l Crim. Trib. for the Former Yugoslavia Dec. 5, 2003).

[358] *See supra* Section II.B.

[359] *Id.*

[360] *See* Stephens & Steer, *supra* note 2, at 95–96.

the destruction of a dual-use satellite.[361] The nature of space infrastructure means that collateral damage to civilians and civilian objects may be more indirect than is the case in some traditional war paradigms. In part, this may call for the application of the principles of precautions and constant care, but there may be useful perspectives on the proportionality rule that can be gained from the other relevant legal regimes.

IHRL may be drawn upon to protect against indirect damage. One possibility for how IHRL principles might inform the requirements of IHL in this context is by clarifying the extent to which uncertainty of collateral damage affects the application of the proportionality principle. The IHRL principle of proportionality requires that a State must have regard to "all the relevant circumstances" surrounding potential deprivation of life, including the risk of collateral damage inherent in the situation, and the degree of risk that use of force "*might* result in loss of life."[362] Hence, it may be argued that, due to inherent difficulty in determining likely collateral damage in advance of an attack against a dual-use satellite, IHRL should be used to expand the scope of foreseeability—taking into account indirect damage to civilians and civilian objects and widening the protection afforded to them under IHL.

It is possible that in the context of weighing collateral damage against anticipated military advantage when targeting a satellite that has significant civilian uses, a harmonized approach to proportionality would require taking into consideration less direct harm than traditional IHL would consider relevant.[363]

### C. Precautions and Constant Care

The principles of precautions and constant care in IHL require belligerents to take feasible precautions in the choice of means and methods of attack and to spare civilians and civilian objects unnecessary harm.[364] Similarly, IHRL requires that all precautions must be taken to avoid, as far as possible, any use of

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[361] Abdul R. Khan, *Space Wars: Dual-Use Satellites*, 14 Rutgers J.L. & Pub. Pol'y 314, 321 (2017).

[362] Stewart v. United Kingdom, App. No. 1044/82, 7 Eur. H.R. Rep. 453, ¶ 19 (1985) (emphasis added), *aff'd*, Wolfgram v. Federal Republic of Germany, App. No. 11257/84, 9 Eur. H.R. Rep. 548, 549 (1986).

[363] *See* Michel Bourbonnière & Ricky J. Lee, Jus Ad Bellum *&* Jus In Bello *Considerations on the Targeting of Satellites: The Targeting of Post-Modern Military Space Assets*, *in* 44 Isr. Y.B. Hum. Rts. 167, 200–01 (2014).

[364] API, *supra* note 23, art. 57(2)(a)(ii).

lethal force.[365] Operations must be "planned and controlled by the authorities so as to minimise, to the greatest extent possible, recourse to lethal force."[366]

IHRL, therefore, can reinforce the IHL requirements of precautions and constant care. While it may be relatively easy to destroy a satellite—generating a decent military advantage—the inherent civilian consequences of doing so mean that the IHL principles of precautions in attack and constant care, supplemented by the IHRL principle of precautionary measures, require that other, less-civilian-harming means should be used if they are available.

In this instance, the IHRL principle complements the IHL principles. It can also add richness to the IHL principles by identifying particular precautionary steps that might be required in accordance with the various assessments of risk required under IHRL. A harmonized approach would pick up on specific requirements including sufficient planning and execution of an operation, incorporating assessments of perceived threats and constraints, possible harm to civilians, and other weapons or tactics at the State's disposal.[367] Thus, under an approach to precautions in attack and constant care, which harmonizes IHL and IHRL precautionary requirements, States may be obligated to avoid kinetic attacks by first using other non-space attacks, such as a terrestrial kinetic attack on command and control facilities. If non-space attacks will not result in a comparable military advantage, incremental approaches to space attacks—deception, disruption, denial, degradation, and, finally, destruction—should be used.[368] In addition, for States to demonstrate that they have identified and minimized risks to civilians and civilian objects throughout the process, they must undertake sufficient planning in advance of an attack, as well as sufficient monitoring of the conduct and results of an attack. The additional considerations imported by IHRL might require a more nuanced and staged approach to space attacks than is necessary under IHL alone.[369]

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[365] *See, e.g.*, McCann v. United Kingdom, 324 Eur. Ct. H.R. (ser. A) ¶ 194 (1995).

[366] *Id.*

[367] Isayeva v. Russia, App. Nos. 57947/00, 57948/00, 57949/00, ¶ 175 (Feb. 24, 2005), http://hudoc.echr.coe.int/eng?i=001-68379 [perma.cc/H86H-L4A4].

[368] *See supra* Section II.C.2.

[369] This might lead to asymmetrical obligations according to the technical capacity of States, a point that may arise under IHL in any event. *See* Michael N.

### D. Investigation

In the event that lives are lost, IHRL imposes a positive obligation on States to undertake an effective and independent investigation.[370] Effective investigation should be "thorough, prompt, and impartial";[371] the investigative authority should have all powers necessary to conduct the inquiry;[372] authorities must act sua sponte;[373] and families of the deceased shall be informed of and have access to the inquiry.[374] The existence of an armed conflict does not displace these obligations.[375] Accordingly, as the ECtHR held in *Al-Skeini v. United Kingdom*, when a death occurs that is lawful under IHL, it is nonetheless necessary for an effective and independent investigation to be undertaken in accordance with the IHRL requirement.[376] This requirement supplements what is required by IHL alone[377] and is a powerful example of how the two regimes can apply in a manner that harmonizes their provisions to achieve their shared humanitarian goal. Accordingly, when civilian deaths occur as a result of the targeting of a satellite, an effective, official, ex post facto investigation will need to be held.

### E. Environmental Damage

Under IHL, States are obligated to protect the natural environment against "widespread, long-term and severe damage" during armed conflict.[378] Damage must be "exceptionally serious" before a breach of this requirement will occur.[379] A similar aim of environmental protection is reflected in ISL, which man-

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Schmitt, *Precision Attack and International Humanitarian Law*, 87 Int'l Rev. Red Cross 445, 460 (2005).

[370] *McCann*, 324 Eur. Ct. H.R. (ser. A) ¶ 161; Hum. Rts. Comm., Baboeram v. Suriname, Commc'n No. 146/1983, ¶ 16, U.N. Doc. CCPR/C/24/D/146/1983 (Apr. 4, 1985); Hum. Rts. Comm., Rubio v. Colom., Commc'n No. 161/1983, ¶ 10.3, U.N. Doc. CCPR/C/31/D/161/1983 (Nov. 2, 1987).

[371] Econ. & Soc. Council, Res. on Principles on the Effective Prevention and Investigation of Extra-Legal, Arbitrary and Summary Executions, ¶ 9, U.N. Doc. E/RES/1989/65 (May 24, 1989).

[372] *Id.* ¶ 10.

[373] Kelly v. United Kingdom, App. No. 30054/96, ¶¶ 94–98 (May 4, 2001), http://hudoc.echr.coe.int/eng?i=001-59453 [perma.cc/A6JQ-XBPY].

[374] Econ. & Soc. Council, *supra* note 371, ¶ 16.

[375] *See* Kaya v. Turkey, 2000-III Eur. Ct. H.R. 149, ¶ 126.

[376] Al-Skeini v. United Kingdom, 2011-IV Eur. Ct. H.R. 99, ¶ 163.

[377] *See, e.g.*, Pouw, *supra* note 282, at 334.

[378] API, *supra* note 23, arts. 35(3), 55(1).

[379] Tallinn Manual 2.0 on the International Law Applicable to Cyber Operations, *supra* note 107, at 539.

dates that States must pursue studies and exploration of outer space so as to avoid its harmful contamination.[380] Although the Outer Space Treaty does not define "harmful contamination," it has been described as "the introduction of elements that make outer space unfit for use or are likely to be injurious to users of outer space,"[381] including the creation of space debris.[382] Moreover, international debris mitigation guidelines (although nonbinding) stipulate that intentional destruction of space objects should be avoided where long-lived debris will be created.[383]

IHL therefore contemplates protection against "exceptionally serious," foreseeable, and indirect environmental damage of attacks. However, in the space environment, ISL expands this consideration, bringing a broader perspective on damage and recognizing the unique environmental danger posed by the creation of debris in outer space. Outcomes such as the creation of space debris have the potential to have long-lasting, hazardous effects on the space environment.[384] Hence, actors must think more broadly about the long-term impacts of the destruction of space objects and must consequently avoid kinetic attacks in space where possible to do so. Actors must also take adequate precautions against the environmental effects of any kinetic attacks that are conducted in space—such as destruction of a space object while it is in a low orbit—allowing for subsequent debris to be destroyed by re-entering Earth's atmosphere relatively soon thereafter. These requirements of ISL complement IHL's prohibition of exceptionally serious environmental damage by introducing a requirement to avoid, where possible, a wider range of environmental damage above a lower threshold of harmful contamination arising from the creation of long-lived debris. In this way, the shared aims of environmental protection are better achieved through supplementing the IHL prohibition of exceptionally serious environmental damage with the ISL requirement of avoidance of harmful environmental contamination.

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[380] Outer Space Treaty, *supra* note 12, art. 9.

[381] Mineiro, *supra* note 228, at 339.

[382] Marchisio, *supra* note 229, at 177.

[383] Comm. on the Peaceful Uses of Outer Space, *supra* note 264, annex IV, guideline 4; Inter-Agency Space Debris Coordination Comm., *supra* note 265, ¶ 5.2.3.

[384] *See generally* Wright, *supra* note 92; *Space Debris from Anti-Satellite Weapons*, *supra* note 219; *see also* Mountin, *supra* note 1, at 116.

In the context of targeting a satellite, therefore, a harmonized approach to environmental damage would require States: (1) to avoid kinetic attacks if at all possible; and (2) to conduct any interception that might be justifiable at the lowest possible orbit, with a positional inclination that would increase the proportion of debris that re-enters Earth's atmosphere quickly, so as to avoid harmful contamination of the outer space environment.

## VII. CONCLUSION

Armed conflict in space is no longer the stuff of science fiction. The increasing militarization of outer space demands the attention of scholars, scientists, and State officials. As space infrastructure becomes increasingly integrated in aspects of both civilian life and military operations, adverse impacts of military space operations on civilians are increasingly likely. Additionally, kinetic operations in outer space present a unique environmental threat to the outer space environment. Critically, there is no single legal regime equipped to adequately respond to these developments.

This Article has considered the application of overlapping IHL, IHRL, and ISL norms relevant to the targeting of a satellite. While the justification for the application of IHL and ISL is obvious, this Article has also explored the potential significance of the evolving jurisprudence of IHRL that is also likely to be relevant. The interpretative principles of *lex specialis* and harmonization have been recommended to resolve instances of normative conflict between these three regimes. This Article has demonstrated a number of ways in which IHRL and ISL norms could influence the interpretation and application of IHL in outer space in pursuit of the objectives shared by all three regimes of humanity and environmental protection.

It is important to appreciate that IHL itself is capable of responding to the unique challenges of armed conflict in outer space. The rules of proportionality, precautions, and constant care militate against the potential effects of attacks on military objectives by requiring that consideration be given to the impacts on civilians and civilian infrastructure. The result is that IHL alone is likely to restrict kinetic attacks on satellites to only those situations where alternative forms of attack—terrestrial kinetic attack on command and control facilities, soft-kill attack against a satellite, and incremental use of deception, disruption, denial, and degradation—cannot be successfully carried out, and then only where the anticipated direct military advantage

sufficiently outweighs the reasonably foreseeable adverse consequences for civilians.

However, this Article has also demonstrated that principles of IHRL and ISL can complement and supplement IHL rules, leading to greater protection of civilians on Earth, as well as greater protection of the unique environment of outer space. The risk assessments provided for in IHRL may complement IHL's existing requirements of precautions and constant care, identifying more specific precautionary steps that should be taken. Additionally, IHRL may be drawn upon to increase the extent to which uncertainty of collateral damage is considered under the proportionality principle in IHL. Further, ISL provisions on environmental protection may add a new and complementary protection to those in IHL, requiring avoidance of a greater range of environmental harms. Finally, if lives are lost, the investigation requirement of IHRL can supplement what is required in IHL, adding an ex post facto process that must be conducted. Of course, in some cases, harmonization will not be possible, and IHL will remain *lex specialis*—as is the case with necessity—where military advantage remains the touchstone and where IHRL's standard cannot be applied. Nonetheless, there is clearly scope for the co-application of IHL, IHRL, and ISL principles in a harmonized interpretation of the law regulating armed conflict in outer space in a manner that promotes the regimes' shared objectives of humanity and environmental protection.

This Article contributes to an emerging body of scholarship that seeks to reconcile existing legal norms applicable to armed conflict in outer space.[385] There is a pressing need for further consideration of the legal issues arising from armed conflict in outer space to identify similar instances of normative conflict and explore how they might be resolved. Civilians and the environment should not bear the burden of unresolved normative

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[385] *See, e.g.*, THE UNIV. OF ADELAIDE, THE WOOMERA MANUAL ON THE INTERNATIONAL LAW OF MILITARY SPACE OPERATIONS, https://law.adelaide.edu.au/woomera/ [perma.cc/JM9J-Z4KE]; Matthew Stubbs & Dale Stephens, *The Woomera Manual: Clarifying the Law of Military Space Operations to Promote Sustainable Uses of Outer Space*, *in* PROJECT ASTERIA 2019: SPACE DEBRIS, SPACE TRAFFIC MANAGEMENT AND SPACE SUSTAINABILITY 99 (Michael Spencer ed., 2019), https://airpower.airforce.gov.au/APDC/media/PDF-Files/Contemporary%20AirPower/AP43-Project-Asteria-2019-Space-Debris-Space-Traffic-Management-and-Space-Sustainability.pdf [perma.cc/SEN3-NZKF]; *Manual on International Law Applicable to Military Uses of Outer Space Project (MILAMOS Project)*, MCGILL UNIV., https://www.mcgill.ca/milamos [perma.cc/YU2B-GDZ6].

conflict. Reconciliation of norms must be prioritized to ensure that if, or when, these are no longer hypothetical situations, the law is readily equipped to deal with them.


SOUTHERN METHODIST UNIVERSITY
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# Comments


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# ACCOUNTABILITY FOR SEXUAL ASSAULT ABOARD AIRPLANES: AN ANALYSIS OF THE NEED FOR REPORTING REQUIREMENTS AT 35,000 FEET

MADISON L. GEORGE*

ABSTRACT

Currently, airlines have no legal duty to report an in-flight sexual assault to law enforcement. This lack of a duty to report hinders investigations, prevents victims from receiving closure, and imposes additional liability on air carriers. This Comment suggests imposing a mandatory and uniform reporting requirement on commercial airlines. This requirement would better assist travelers and help limit airlines' liability for in-flight sexual assault.

By examining the purposes and policies of other mandated reporting laws, it is apparent that the airline industry is an apt place to instill a duty to report. Requiring airlines to report in-flight sexual assault would follow the current trend of making reporting requirements commonplace in the professional and corporate spheres. Pending legislation on this topic has significant shortcomings, but this Comment argues that it is nonetheless important and should be expanded in the near future.

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## I. INTRODUCTION

IN JANUARY 2018, DURING A Spirit Airlines overnight flight, a twenty-three-year-old victim awoke to a stranger "molest[ing] her with his hands."[1] At trial, she testified that she felt frozen and petrified.[2] The assailant was sentenced to nine years in federal prison.[3]

Unfortunately, this is far from an isolated incident. For example, in May 2019, a Massachusetts man was indicted for sexual assault after he allegedly molested a nineteen-year-old United Airlines passenger.[4] In November 2019, an American Airlines flight bound for Salt Lake City, Utah had to be diverted to

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[1] Associated Press, *Man in U.S. on Work Visa Gets 9 Years in Prison for Sex Assault on Flight*, NBC NEWS (Dec. 14, 2018), https://www.nbcnews.com/news/us-news/man-u-s-work-visa-gets-9-years-prison-sex-n9478 [perma.cc/G3TH-JGQD].

[2] *Id.*

[3] *Id.*

[4] David Oliver, *Passenger Indicted for Alleged Mid-Flight Sexual Assault of 19-Year-Old Woman*, USA TODAY (May 21, 2019), https://www.usatoday.com/story/travel/flights/2019/05/21/united-airlines-passenger-alleges-sexual-assault/3751023002/ [https://perma.cc/X64B-JWAL].

Tulsa, Oklahoma for the arrest of an assailant after he allegedly grabbed the crotch of a woman sitting next to him who was traveling with her daughter.[5] Additionally, not all assailants are punished. Even more recently, a class action lawsuit was filed against Frontier Airlines alleging the airline mishandled multiple cases of in-flight sexual assault and that they lack proper reporting procedures.[6] All of these cases illustrate the increasingly important issue of sexual assault on airplanes and airlines' responses to these crimes.

According to the Federal Bureau of Investigation (FBI), from 2014 to 2017, the number of reported in-flight sexual assault cases went from thirty-eight to sixty-three.[7] This number may seem small, but numerous sexual assaults occurring on airplanes go unreported each year.[8] One in five flight attendants claims they have experienced a report of passenger-on-passenger sexual assault.[9] These same flight attendants report that law enforcement was notified or met the plane at the gate less than half of the time.[10] In some cases, law enforcement responds to the assaults because airline crewmembers choose to report.[11] Yet, company policy is currently the only guide for reporting on airlines, which results in law enforcement not knowing about—much less investigating—numerous other cases.[12]

Current aviation and criminal laws fail to address the problem of sexual assault aboard aircraft. To better serve travelers, the Federal Aviation Administration (FAA) or the Transportation and Security Administration (TSA) should create a uniform,

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[5] Mariel Padilla, *Man Charged in Sexual Assault of Woman on a Flight, Officials Say*, N.Y. TIMES (Nov. 8, 2019), https://www.nytimes.com/2019/11/08/us/american-airlines-passenger-groping.html [https://perma.cc/24V4-5MF8].

[6] Hally Freger, *Class Action Lawsuit Claims Frontier Airlines Mishandled Cases of In-Flight Sexual Assault*, ABC NEWS (Dec. 17, 2019), https://abcnews.go.com/Business/class-action-lawsuit-claims-frontier-airlines-mishandled-cases/story?id=67787731 [perma.cc/E8K6-9SDR].

[7] *Sexual Assault Aboard Aircraft*, FED. BUREAU OF INVESTIGATION (Apr. 26, 2018), https://www.fbi.gov/news/stories/raising-awareness-about-sexual-assault-aboard-aircraft-042618 [perma.cc/4WR5-CFVD].

[8] *See id.*

[9] *#MeToo in the Air*, ASS'N OF FLIGHT ATTENDANTS-CWA, https://www.afacwa.org/metoo [perma.cc/96MN-ZT9V].

[10] *Id.*

[11] *See id.*

[12] *See* Jamie Freed, *In-Flight Sexual Assaults Often Unreported; Airlines Need to Step Up*, REUTERS (Dec. 14, 2017), https://www.reuters.com/article/us-india-actor-assault-airlines-analysis/in-flight-sexual-assaults-often-unreported-airlines-need-to-step-up-idUSKBN1E80YN [perma.cc/9RYY-TW72].

mandatory reporting requirement that requires commercial airline staff to disclose reported instances of in-flight sexual assault to law enforcement. Part II of this Comment will discuss two cases which brought airlines' nonreporting to the media's attention. Part III will address the current state of the relevant U.S. aviation law; this includes the liability airlines currently face for in-flight sexual assault, the government's authority over crimes aboard aircraft, and pending legislation. Part IV will address shortcomings in pending legislation to show why more stringent reporting laws are necessary. Part V will examine other reporting requirements and how their purposes and policies extend to the airline industry. Part VI will address the benefits of a uniform, mandatory reporting requirement. Lastly, Part VII will provide a conclusion by laying out steps Congress should take.

## II. RALLYING THE MEDIA

If a flight attendant or other airline crewmember is notified of an in-flight sexual assault, there is no mandatory reporting requirement or other uniform procedure for handling such an incident.[13] Prior to this decade, the treatment and lack of reporting of in-flight sexual assaults was rarely discussed, but it has garnered media attention in the past few years. This is partially due to two highly publicized cases—both of which illustrate the seriousness of nonreporting.[14]

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[13] *See* Andrew Appelbaum, *Recent In-Flight Sexual Abuse Complaints to Feds Released by Airline Passenger Group . . . Nothing Done?*, FLYERS RIGHTS (Nov. 29, 2018), https://flyersrights.org/press-release/recent-in-flight-sexual-abuse-complaints-to-feds-released-by-airline-passenger-group/ [perma.cc/529A-68GD]; Shannon McMahon, *What to Do if In-Flight Sexual Assault Happens to You*, SMARTERTRAVEL (Mar. 19, 2018), https://www.smartertravel.com/flight-sexual-assault-what-to-do/ [perma.cc/BQT6-JD87]; *see also Sexual Assault Aboard Aircraft*, *supra* note 7 (noting "in most cases" law enforcement will be available to respond if the flight crew is immediately notified and encouraging victims to reach out to the FBI themselves).

[14] The #MeToo movement has also influenced the attention devoted to in-flight sexual assault as its massive impact continues to result in increased reporting of sexual crimes in all contexts. *See, e.g.*, Frankie Wallace, *How the #MeToo Movement Has Affected the Airline Industry*, AERONAUTICS AVIATION NEWS & MEDIA (Aug. 5, 2019), https://aeronauticsonline.com/how-the-metoo-movement-has-affected-the-airline-industry/ [perma.cc/J385-Z6ZG]. The breadth of this movement and its influence on the airline industry, however, is outside the scope of this Comment.

### A. *Dvaladze v. Delta Air Lines, Inc.*

The first largely publicized case shows how nonreporting can result in an assailant getting away. In 2018, Allison Dvaladze sued Delta Air Lines, alleging she was assaulted by a stranger mid-flight.[15] Dvaladze stated that she told the crewmembers of the incident immediately but received unsatisfactory responses.[16] One flight attendant told Dvaladze to let it "roll off her back" and that sexual assault occurs frequently on flights.[17] Upon landing, crewmembers did not report the incident to law enforcement, and the alleged assailant was never identified or arrested.[18] Since then, Dvaladze has frequently discussed her case with the media.[19] It was even brought to the FBI's attention and used in their campaign to raise awareness regarding the dangers of in-flight sexual assault.[20]

### B. *Sardinas v. United Airlines*

Another largely discussed case, citing the *Dvaladze* incident in its own complaint, shows how nonreporting hinders law enforcement investigations.[21] A teenager flying unaccompanied on United Airlines (United) woke up mid-flight to a stranger assaulting her.[22] The victim caught a flight attendant's attention who proceeded to "chastise" the assailant, telling him his actions

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[15] Complaint for Damages at 3–4, Dvaladze v. Delta Air Lines, Inc., No. 2:18-cv-00297-RSL (W.D. Wash. July 25, 2019), ECF No. 1; *see also* Order of Dismissal, *Dvaladze*, No. 2:18-cv-00297-RSL, ECF No. 22 (noting case was later dismissed pursuant to settlement).

[16] Complaint for Damages at 4–5, *Dvaladze*, No. 2:18-cv-00297-RSL.

[17] *Id.* at 4.

[18] *Id.* at 5; *see also* Avi Selk, *She Says She Was Groped on a Delta Flight—Then Told to Sit Down and 'Let It Roll off Your Back'*, Wash. Post (Feb. 28, 2018), https://www.washingtonpost.com/news/dr-gridlock/wp/2018/02/28/she-says-she-was-groped-on-a-delta-flight-then-told-to-sit-down-and-let-it-roll-off-your-back/ [https://perma.cc/MEW6-CSE3].

[19] *E.g.*, Mary Louise Kelly, *36,000 Feet in the Air, Flight Attendants and Passengers Say 'Me, Too'*, Nat'l Pub. Radio (June 21, 2018), https://www.npr.org/transcripts/622361890 [https://perma.cc/K253-H3F8]; Matthew Halverson, *The Unfriendly Skies: Why Sexual Assault Still Plagues Air Travel*, Condé Nast Traveler (Mar. 29, 2017), https://www.cntraveler.com/story/the-unfriendly-skies-why-sexual-assault-still-plagues-air-travel [perma.cc/C5QZ-P9PA].

[20] *See Sexual Assault Aboard Aircraft*, *supra* note 7.

[21] Complaint at 3, Sardinas v. United Airlines, No. 19-2-01663-9 SEA (Wash. Super. Ct.-King Cnty. Feb. 22, 2019), ECF No. 1-1.

[22] *Id.* at 4–5; *see also* Amy Clancy, *Seattle Teen: United Airlines 'Negligent' for In-Flight Sexual Assault*, KIRO 7 (Nov. 22, 2019), https://www.kiro7.com/news/local/tonight-at-5-30-seattle-teen-united-airlines-negligent-for-in-flight-sexual-assault/950947481/ [perma.cc/R7VF-6JS].

were "not cool."[23] Yet, the assailant was allowed to walk off the plane undeterred as United never notified law enforcement.[24] Instead, the victim reported the assault to her mother who, in turn, notified law enforcement.[25] Luckily, unlike in *Dvaladze*, the assailant was later identified, arrested, and convicted.[26]

Both of these instances illustrate that the lack of a mandatory reporting requirement for in-flight sexual assault leads to adverse consequences. These cases, along with others, have garnered media attention and forced our legislative and executive branches to examine the current state of the law regarding in-flight assault.[27]

## III. CURRENT STATE OF THE LAW

### A. Liability for Airlines

Prior to the late 1990s, sex on airplanes—consensual or otherwise—was rarely discussed.[28] It is unknown if this is due to a lack of reporting, a cover-up mentality, or it just did not occur. Nonetheless, in the past few decades courts have recognized a problem on both domestic and international flights and have come up with avenues of liability to hold airlines accountable.[29] The remainder of this Part will discuss liability for both international and domestic airlines.

#### *1. Liability for International Air Carriers*

In the 2000 case *Wallace v. Korean Air*, the Second Circuit found that an international air carrier could be liable for injuries arising from passenger-on-passenger sexual assault occur-

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[23] Clancy, *supra* note 22.

[24] Complaint at 5, *Sardinas*, No. 19-2-01663-9 SEA; Clancy, *supra* note 22.

[25] Complaint at 5–6, *Sardinas*, No. 19-2-01663-9 SEA; Clancy, *supra* note 22.

[26] *See* Complaint at 5–6, *Sardinas*, No. 19-2-01663-9 SEA; Clancy, *supra* note 22.

[27] *See* Rene Marsh & Juana Summers, *Women Detail Sexual Assaults and Harassment on Commercial Flights*, CNN (Dec. 28, 2017), https://www.cnn.com/2017/12/27/politics/women-sexual-assaults-harassment-commercial-flights/index.html [perma.cc/Q33G-7N68] (containing additional instances of victims complaining of airlines' responses to in-flight sexual assaults).

[28] *See* Asra Q. Nomani, *A New Problem for the Airlines: Sexual Misconduct at 37,000 Feet*, Wall St. J. (June 10, 1998), https://www.wsj.com/articles/SB897364901819356000 [https://perma.cc/H5FB-DQRQ].

[29] *Id.*; *see also* Judith R. Karp, *Mile High Assaults: Air Carrier Liability Under the Warsaw Convention*, 66 J. Air L. & Com. 1551, 1553 (2001) ("[I]n 1997, one-third of the reported cases of 'unruly behavior' among airplane passengers involved sexual misconduct.").

ring mid-flight.[30] Similarly, in *Tsevas v. Delta Air Lines, Inc.*, an Illinois federal district court held that a victim could sue for injuries if the airline failed to act after a passenger-on-passenger sexual assault on a transatlantic flight.[31] In reaching this holding, the court found that the airline contributed to the attack by continuing to serve the alleged assailant alcohol after receiving complaints and refusing to intervene.[32] Courts have subsequently held that liability extends to international air carriers regardless of the victim's gender.[33] Likewise, airlines on domestic flights can be held liable for passenger-on-passenger sexual assault.

### *2. Liability for Airlines as Common Carriers*

Liability for airlines on domestic flights originates primarily from the classification of airlines as common carriers. U.S. law has long recognized this categorization.[34] Being a common carrier imposes a heightened duty of care for airlines on domestic flights, which makes them liable for foreseeable criminal acts, including sexual misconduct.[35] The test for liability is "whether such an incident was foreseeable under the circumstances of the case or whether the air carrier owed a heightened duty to the passenger due to a special relationship."[36] For example, in *R.M. v. American Airlines, Inc.*, a minor's parents sued American Airlines after their daughter was sexually assaulted mid-flight.[37] The court held that airlines, as common carriers, are subject to a heightened duty of care; however, this crime was not foreseeable

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[30] Wallace v. Korean Air, 214 F.3d 293, 296 (2d Cir. 2000); *see also* Karp, *supra* note 29, at 1561.

[31] Tsevas v. Delta Air Lines, Inc., No. 97C0320, 1997 WL 767278, at *1 (N.D. Ill. Dec. 1, 1997); *see also* Jonathan E. DeMay, Marissa N. Lefland & Constantine J. Petallides, *In-Flight Sexual Misconduct: Congressional Action and Air Carrier Liability*, 2019 ABA FORUM ON AIR & SPACE L. ANN. CONF., Sept. 12–13, 2019, at 1, 9–10.

[32] *Tsevas*, 1997 WL 767278, at *10; *see also* DeMay et al., *supra* note 31, at 9–10.

[33] *E.g.*, Langadinos v. Am. Airlines, Inc., 199 F.3d 68, 69 (1st Cir. 2000); Karp, *supra* note 29, at 1563–64.

[34] *See* 45 U.S.C. § 181; 49 U.S.C. § 40102(a)(25), (27); Am. Airlines, Inc. v. N. Am. Airlines, Inc., 351 U.S. 79, 84 (1956); Paul T. David, *Federal Regulation of Airplane Common Carriers*, 6 J. LAND & PUB. UTIL. ECON. 359, 360 (1930).

[35] DeMay et al., *supra* note 31, at 13; *see also* R.M. v. Am. Airlines, Inc., 338 F. Supp. 3d 1203, 1213–14 (D. Or. 2018).

[36] DeMay et al., *supra* note 31, at 13.

[37] *R.M.*, 338 F. Supp. 3d at 1205. Note that the assailant pleaded guilty to "Assault with Intent to Commit Sexual Contact of a Minor and Indecent Sexual Proposal to a Minor." *Id.* at 1207.

enough for the airline to be liable.[38] The facts indicated that (1) the defendant was not intoxicated; (2) the attack was noticed by a flight attendant; (3) the passengers were separated; (4) law enforcement was notified immediately; and (5) law enforcement met the assailant upon landing.[39]

Conversely, in other cases, such as *Thompson v. Hawaiian Airlines, Inc.*, courts have found some in-flight crimes foreseeable enough to hold airlines responsible in their common carrier role.[40] In *Thompson*, the court denied the defendant airline's motion for summary judgment when it found the foreseeability of an in-flight sexual assault was a question of fact.[41] The plaintiff in *Thompson* alleged that her assailant was visibly intoxicated prior to boarding and that the flight attendants continued to serve him alcohol.[42] She woke up mid-flight to the assailant touching her groin.[43] While a jury later ruled the plaintiff take nothing, the court's recognition that airlines can be liable for their passenger's actions on domestic flights is relevant and followed by most states.[44]

Despite continued recognition of airline liability for in-flight sexual assault, little has been done to encourage specific protocols and reporting when an in-flight assault occurs. This is true even though courts, federal legislators, and the media recognize the problem of in-flight sexual assault.[45] The executive and legislative branches did not begin widely discussing mandated reporting for airlines until 2018.[46] One possible reason for this is the prior lack of media attention on the subject. Another possi-

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[38] *Id.* at 1215.

[39] *Id.* at 1206–07.

[40] Thompson v. Hawaiian Airlines, Inc., No. CV 09-4515 CAS (PLAx), 2010 WL 1151431, at *5 (C.D. Cal. July 19, 2010).

[41] *Id.*

[42] *Id.* at *2.

[43] *Id.*

[44] *See* Judgment at 1, *Thompson*, 2010 WL 1151431 (No. CV09-4515 CAS (PLAx)), ECF No. 154; DeMay et al., *supra* note 31, at 13.

[45] *See, e.g.*, R.M. v. Am. Airlines, Inc., 338 F. Supp. 3d 1203, 1215 (D. Or. 2018) ("undeniably a serious issue for airlines today"); Stop Sexual Assault and Harassment in Transportation Act, H.R. 5139, 116th Cong. (1st Sess. 2019) (describing proposed legislation to address sexual harassment in public transportation); Karen Schwartz, *Recent Incidents Put a New Focus on Sexual Assault on Airplanes*, N.Y. TIMES (Oct. 20, 2016), https://www.nytimes.com/2016/10/20/travel/recent-incidents-put-a-new-focus-on-sexual-assault-on-airplanes.html [perma.cc/G2ZY-SMYV].

[46] *See* H.R. 5139; FAA Reauthorization Act of 2018, Pub. L. No. 115-254, § 339A, 132 Stat. 3186, 3282 (2018).

ble explanation is that Congress does not want to meddle with company policy. While the latter explanation promotes airlines having free reign over their own business, it lacks merit considering the broad authority already bestowed on the federal government to regulate airlines.

### B. The Government's Authority over Crimes on Aircraft

While airline jurisdictional questions are convoluted and generally outside the scope of this Comment, the U.S. government possesses vast authority over airlines—particularly as it relates to criminal offenses like sexual assault. This authority, stemming from both the Constitution and federal statutes, is more than enough to initiate a mandated reporting requirement. The remainder of this Part will discuss the U.S. government's constitutional and statutory authority to regulate airlines.

#### *1. Constitutional Authority*

First, the U.S. Constitution's Commerce Clause states that Congress shall have the power "to regulate commerce with foreign nations, and among the several states."[47] This power rapidly expanded throughout the twentieth century and has been interpreted to mean that Congress may regulate (1) channels of interstate commerce; (2) instrumentalities of interstate commerce or persons or things in interstate commerce; and (3) activities which substantially affect interstate commerce.[48] A commercial plane arguably fits into all three of these categories.[49] Therefore, "[i]n the context of aviation law, courts generally uphold the federal government's efforts to regulate even intrastate air travel."[50]

Additionally, under the Constitution's Supremacy Clause, the "laws of the United States" are the "supreme law of the land" regardless of the "laws of any State to the contrary."[51] This means any valid federal laws will take precedence over conflict-

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[47] U.S. Const. art. I, § 8, cl. 3.

[48] United States v. Lopez, 514 U.S. 549, 558–59 (1995).

[49] Michael W. Pearson & Daniel S. Riley, Foundations of Aviation Law 28 (2015).

[50] *Id.*; *see also* United States v. Knowles, 197 F. Supp. 3d 143, 155–56 (D.C. Cir. 2016) (holding "Congress may regulate an instrumentality of both interstate and foreign commerce—an airplane . . . pursuant to its commerce powers.").

[51] U.S. Const. art. VI.

ing state laws.[52] States must adhere to these laws; they cannot turn a blind eye to the federal government's decisions—so long as they are constitutional.[53] Congress consequently has the constitutional authority to create a mandatory reporting requirement for commercial airlines under the Commerce Clause. Under the Supremacy Clause, all airlines would have to adhere to this requirement regardless of state laws.

### *2. Statutory Authority*

Under the Commerce Clause's authority, the legislature has already enacted numerous statutes regulating airlines and in-flight crimes. Under 49 U.S.C. § 40103, the U.S. government has "exclusive sovereignty of airspace of the United States."[54] Under 49 U.S.C. § 46506, certain in-flight actions considered crimes in the territorial United States are made criminal so long as they are committed within the United States' "special aircraft jurisdiction."[55] This statute includes sexual abuse offenses.[56] Essentially, all U.S. aircraft or any aircraft in the United States is within the special aircraft jurisdiction.[57] In the case of in-flight assaults, the FBI generally has investigative jurisdiction—so long as they are actually reported.[58]

Congress does not possess exclusive interest in aviation laws and regulations. Regarding commercial aviation, Congress has delegated authority to two executive agencies. First, the FAA has authority to regulate any U.S. civil aviation activities.[59] Since its

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[52] *Id.*; *see* Armstrong v. Exceptional Child Ctr., Inc., 575 U.S. 320, 324 (2015) ("[T]his [Supremacy] Clause creates a rule of decision: Courts 'shall' regard the 'Constitution,' and all laws 'made in Pursuance thereof,' as 'the supreme Law of the Land.' They must not give effect to state laws that conflict with federal laws.").

[53] *See* Cooper v. Aaron, 358 U.S. 1, 18–19 (1958) (holding the Constitution is the supreme law of the land, and state legislatures do not have the authority to nullify Supreme Court or other federal court decisions).

[54] 49 U.S.C. § 40103(a)(1).

[55] *Id.* § 46506(1); *see also 1412. Certain Crimes Aboard Aircraft in Flight—49 U.S.C. 46506*, U.S. DEP'T OF JUST., https://www.justice.gov/jm/criminal-resource-manual-1412-certain-crimes-aboard-aircraft-flight-49-usc-46506 [perma.cc/C55F-ZUBR].

[56] 49 U.S.C. § 46506; 18 U.S.C. §§ 2241–2248; *1412. Certain Crimes Aboard Aircraft in Flight—49 U.S.C. 46506*, *supra* note 55.

[57] 49 U.S.C. § 46501(2).

[58] *Sexual Assault Aboard Aircraft*, *supra* note 7.

[59] *Federal Aviation Administration*, U.S. DEP'T OF TRANSP., https://www.transportation.gov/briefing-room/safetyfirst/federal-aviation-administration [perma.cc/TEX6-N86P]; *see also* Federal Aviation Act of 1958, Pub. L. No. 85-726, 75 Stat. 737 (repealed and re-codified without substantive change at 49 U.S.C.

creation in 1958, the FAA has grown tremendously and is now in charge of providing the "safest, most efficient aerospace system in the world."[60] Some of the FAA's main tasks include developing programs to combat the environmental impact of airplanes; regulating commercial space transportation as well as civil aviation; and setting safety standards for planes and crewmembers.[61] On October 5, 2018, President Trump signed into law the FAA Reauthorization Act of 2018 (FAA Reauthorization Act), which extended the FAA's authority (and funding) until 2023.[62]

Second, TSA is another executive agency with authority relating to airline transportation. Created in response to the September 11th terrorist attacks,[63] some of TSA's main tasks include organizing and implementing all security screenings for passengers at U.S. airports; liaising with law enforcement regarding transportation security; and enforcing security-related regulations.[64] TSA also controls the federal air marshals. The air marshals are "federal law enforcement officers deployed on passenger flights worldwide to protect airline passengers and crew against the risk of criminal and terrorist violence."[65]

Though both agencies regulate aviation safety, the FAA's mission indirectly helps keep passengers safe by creating safety standards, while TSA is directly responsible for passenger security in all modes of transportation.[66] Considering the authority granted to each agency, either should have the power to create and implement a mandated reporting requirement for commercial airlines. While TSA seems the more logical choice due to its connection to passenger security and its law enforcement powers, the FAA Reauthorization Act directed the Secretary of Transportation to establish a task force addressing the issue of

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§§ 40101–40105) (stating the FAA has authority over regulations and promotion of civil aviation).

[60] *Safety: The Foundation of Everything We Do*, FED. AVIATION ADMIN., https://www.faa.gov/about/safety_efficiency/ [perma.cc/7JNT-S9MM]; *see* 49 U.S.C. § 40103(b)(1).

[61] *See Safety, The Foundation of Everything We Do*, *supra* note 60; *see* 49 U.S.C. §§ 40101–40130 (laying out the general policies and duties of the FAA).

[62] FAA Reauthorization Act of 2018, Pub. L. No. 115-254, 132 Stat. 3186 (2018).

[63] *See Mission*, U.S. TRANSP. SEC. ADMIN., https://www.tsa.gov/about/tsa-mission [perma.cc/TEX6-N86P]; *see also* 49 U.S.C. § 114(f).

[64] 49 U.S.C. § 114.

[65] *Federal Air Marshal Service and Law Enforcement*, U.S. TRANSP. SEC. ADMIN., https://www.tsa.gov/about/jobs-at-tsa/federal-air-marshal-service-and-law-enforcement [perma.cc/U5EQ-JBJP]; 49 U.S.C. § 44917.

[66] 49 U.S.C. § 114(f); *Mission*, *supra* note 63.

in-flight sexual misconduct.[67] This task force, as well as the Stop Sexual Assault and Harassment in Transportation Act (House Bill 5139)—a bill recently passed by the House of Representatives—lay the groundwork for mandated reporting of in-flight sexual assaults.[68]

### C. Pending Legislation

While Congress has said each airplane should have policies to address in-flight sexual misconduct that include "facilitat[ing] the reporting of sexual misconduct to appropriate law enforcement agencies,"[69] there is no mandatory reporting requirement even if an assault is reported to airline staff.[70] The burden is entirely on the airline itself to create and adhere to a reporting policy.[71] At most, a failure to report may be a factor when determining the airlines' civil liability for the assault.[72] The rest of Section C will discuss pending legislation that could address the issue of airline nonreporting including the FAA Reauthorization Act and House Bill 5139.

#### *1. FAA Reauthorization Act*

In 2018, Congress and President Trump addressed in-flight sexual misconduct in the FAA Reauthorization Act,[73] which directed the Secretary of Transportation to create the National In-Flight Sexual Misconduct Task Force (Task Force).[74] The Task Force's primary function is to review the current practices, protocols, and requirements of airlines when responding to alleged sexual misconduct in-flight—this includes review of an airline's training, reporting, and data collection.[75] The Task Force's secondary function is to make recommendations based on their review of the airline's protocols and firsthand accounts from passengers who have experienced in-flight sexual misconduct.[76]

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[67] FAA Reauthorization Act § 339A.

[68] *See id.* §§ 339A, 339B; Stop Sexual Assault and Harassment in Transportation Act, H.R. 5139, 116th Cong. (1st Sess. 2019).

[69] FAA Reauthorization Act § 338(1)(B).

[70] *See* Appelbaum, *supra* note 13 (noting that there are no mandatory reporting requirements so airlines may report according to their own policies).

[71] *See* FAA Reauthorization Act § 338(1).

[72] *See, e.g.*, Complaint at 2, Sardinas v. United Airlines, No. 19-2-01663-9 SEA (Wash. Super. Ct.-King Cnty. Jan. 17, 2019), E.C.F. No. 1-1.

[73] FAA Reauthorization Act §§ 339A, 339B.

[74] *Id.* § 339A(a).

[75] *Id.* § 339A(a)(1).

[76] *Id.* § 339A(a)(2).

The Task Force's purposes are six-fold. First, the Task Force recommends ways to address sexual assault on planes; this could include airline employee and contractor training.[77] Second, the Task Force suggests ways for passengers involved in an in-flight sexual assault to report it.[78] The Attorney General uses these recommendations to "establish a streamlined process" for "individuals involved in incidents of alleged sexual misconduct onboard aircraft to report such allegations" in a way that protects their privacy.[79] Third, the Task Force suggests means of providing data of in-flight sexual misconduct while protecting the victims' privacy and preventing the public from identifying an individual air carrier.[80] Fourth, the Task Force is to "issue recommendations for flight attendants, pilots, and other appropriate airline personnel on law enforcement notification in incidents of alleged sexual misconduct."[81] Fifth, the Task Force reviews and uses firsthand accounts from passengers who have been assaulted in-flight, and, sixth, the Task Force does anything else it deems necessary.[82]

The FAA Reauthorization Act requires that the Task Force consist of representatives from (1) the Department of Transportation (DOT); (2) the Department of Justice; (3) national organizations that specialize in helping sexual assault victims; (4) labor organizations that represent flight attendants and pilots; (5) airports; (6) air carriers; (7) state and local law enforcement agencies; and (8) other federal agencies and stakeholder organizations deemed necessary.[83] These representatives ensure the interests of all groups or individuals affected by in-flight sexual assault are represented. While the FAA Reauthorization Act is a step in the right direction and has prompted discussion of in-flight sexual assault, it leaves a lot to be desired regarding an airline's responsibility to report.

### 2. *House Bill 5139: Stop Sexual Assault and Harassment in Transportation Act*

Representative Peter DeFazio recognized the legislative gap in reporting requirements when he introduced House Bill 5139 to

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[77] *Id.* § 339A(c)(1).
[78] *Id.* § 339A(c)(2).
[79] *Id.* § 339B(a).
[80] *Id.* § 339A(c)(3).
[81] *Id.* § 339A(c)(4).
[82] *Id.* § 339A(c)(5)–(6).
[83] *Id.* § 339A(b).

the House of Representatives.[84] The main purpose of House Bill 5139, which is still under review, is to "protect transportation personnel and passengers from sexual assault and harassment."[85] To that end, it has an entire section devoted to the sexual assault and harassment policies of foreign and domestic air carriers.[86] While House Bill 5139 is not yet as detailed as the FAA Reauthorization Act, it better addresses airlines' responsibility in preventing and reporting sexual assault.[87] As it stands, House Bill 5139 would require all commercial airlines to create a formal in-flight sexual assault policy with five requirements.[88]

First, the policy must state that sexual assault or harassment is always unacceptable.[89] Second, the policy must include procedures to facilitate a victim's reporting, including appropriate public outreach activities and confidential ways to report.[90] Third, the airlines must limit or prohibit future travel by an assailant.[91] Fourth, the policy must mandate training for airline personnel who may receive reports of in-flight assault and training to recognize and respond to potential human trafficking victims.[92] Fifth, and most importantly, the policy would require specific "procedures that personnel should follow upon the reporting of a transportation sexual assault or harassment incident, including actions to protect affected individuals from continued sexual assault or harassment and *to notify law enforcement when appropriate*."[93]

To make House Bill 5139 more palatable to air carriers, it also states that compliance with these requirements would not definitively determine whether the airline fell below any requisite standard of care.[94] This essentially prevents noncompliance with House Bill 5139 from becoming a per se determination of liabil-

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[84] Press Release, Rep. Peter DeFazio, Chair DeFazio Introduces Legislation to Address Sexual Assault and Harassment in Passenger Transportation (Nov. 18, 2019), https://defazio.house.gov/media-center/press-releases/chair-defazio-introduces-legislation-to-address-sexual-assault-and [https://perma.cc/XVA3-EB5B].

[85] *Id.*

[86] Stop Sexual Assault and Harassment in Transportation Act, H.R. 5139, 116th Cong. pmbl., § 41727 (1st Sess. 2019).

[87] *See id.*

[88] *Id.*

[89] *Id.* § 41727(b)(1).

[90] *Id.* § 41727(b)(2).

[91] *Id.* § 41727(b)(4).

[92] *Id.* § 41727(b)(5).

[93] *Id.* § 41727(b)(3) (emphasis added).

[94] *See id.* § 41727(d).

ity for the air carrier; however, this safeguard does not prevent a court from reviewing noncompliance with the reporting requirement as a factor in deciding liability. Yet, as promising as the FAA Reauthorization Act and House Bill 5139 are, there are still issues to be addressed.

## IV. SHORTCOMINGS IN PENDING LEGISLATION

### A. The FAA Reauthorization Act

As the remainder of this Part will address, both the FAA Reauthorization Act and House Bill 5139 fail to fully solve the issue of nonreporting of in-flight sexual assaults. While the FAA Reauthorization Act is a step in the right direction, it places the burden of reporting on the victim, not the airline.[95] In some ways, it even places the protection of airlines over passenger safety. For instance, the Task Force's third purpose, encouraging data collection, is vital, as instances of in-flight sexual assault are underreported.[96] More accurate information could lead to better prevention tactics. Yet, by failing to pair sexual assault data with specific airlines, the public cannot consider safety as a factor when choosing an airline. It appears this is an attempt to protect air carriers from liability and economic loss, which may not be considerate of the safety of future travelers.

The Task Force's fourth purpose—to issue recommendations for airline crewmembers on how to report to law enforcement—is the most relevant to this Comment.[97] While the FAA Reauthorization Act is worded ambiguously, one can assume the Task Force is meant to address reporting requirements for commercial airline crewmembers. Yet, there is no further mention of requiring airlines to report. Instead, the FAA Reauthorization Act focuses on ways the victim can report.[98] The emphasis on victim's reporting is likely an effort to protect the privacy of victims and to allow them to control whether their assault is reported to law enforcement. While this is commendable, it shifts the burden from airlines, imposing a duty on the traumatized victim who generally lacks reporting capability at 35,000 feet.[99] If

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[95] FAA Reauthorization Act of 2018, Pub. L. No. 115-254, § 339B(a), 132 Stat. 3186 (2018).

[96] *Id.* § 339A(c)(3).

[97] *Id.* § 339A(c)(4).

[98] *See id.* § 339B.

[99] *See* Celine Hacobian, *Here's How High Planes Actually Fly, According to Experts*, Time (June 27, 2018), https://time.com/5309905/how-high-do-planes-fly/

the victim has already reported the incident to an airline crewmember, the crewmember should have a duty as a common carrier to notify law enforcement.

Further, by placing the reporting burden on the victim instead of the airline, the assailant is more likely to get away. Victims, compared to airline crewmembers, often lack the ability to easily contact law enforcement until after they have landed.[100] This time critically impacts law enforcement's ability to respond effectively.[101] Cell phones remain largely prohibited and inaccessible to passengers in-flight.[102] While some airlines sell in-flight wireless internet,[103] this is often unreliable. Further, while a victim could potentially contact law enforcement using in-flight wireless internet to send an email, it seems unlikely that law enforcement will read the email and take action by the time the plane lands. This impacts the victim's ability to secure protection for themselves, hinders law enforcement's arrest and investigation, and may endanger another victim.[104] Ultimately, the victim is often unable to seek redress or protection via law enforcement until after the plane has landed—potentially after be-

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[perma.cc/ARA8-TAUP] (noting that planes generally fly at 31,000 to 38,000 feet).

[100] *See Fact Sheet – Portable Electronics on Airplanes*, FED. AVIATION ADMIN. (June 21, 2013), https://www.faa.gov/news/fact_sheets/news_story.cfm?newsId=14774#:~:text=Since%201991%2C%20the%20FCC%20has,is%20taxiing%20to%20the%20gate [https://perma.cc/9QFR-4ZWA] (noting banned cell phone use on airplanes and that even in newer model planes, when passengers might be allowed to use their phones after the plane reaches 10,000 feet, cell phones lack the ability to transmit signals until landing); *Portable Electronic Devices*, FED. AVIATION ADMIN. (Sept. 10, 2019), https://www.faa.gov/about/initiatives/ped/#:~:text=the%20FAA%20is%20not%20considering,airborne%20calls%20using%20cell%20phones [https://perma.cc/Z426-LLU3] ("The FAA is not considering the use of cell phones . . . during flight because Federal Communications Commission (FCC) regulations currently prohibit any airborne calls using cell phones.").

[101] WILLIAM SPELMAN & DALE K. BROWN, NAT'L INST. OF JUST., CALLING THE POLICE: CITIZEN REPORTING OF SERIOUS CRIME, at xix, 61–80 (1984), https://www.ncjrs.gov/pdffiles1/Digitization/82276NCJRS.pdf [https://perma.cc/9H2A-WL5W] (finding time it takes to report crime affects possibility of on-scene arrests).

[102] *See Fact Sheet – Portable Electronics on Airplanes*, *supra* note 100; *Portable Electronic Devices*, *supra* note 100.

[103] *See, e.g.*, *Wi-Fi and Connectivity*, AM. AIRLINES, https://www.aa.com/i18n/travel-info/experience/entertainment/wi-fi-and-connectivity.jsp?anchorLocation=directURL&title=wifi [perma.cc/CDH2-HBCM] (showing ability to purchase wi-fi on domestic flights).

[104] *See, e.g.*, Complaint at 5–6, Sardinas v. United Airlines, 19-2-01663-9 SEA (Wash. Sup. Ct.-King Cnty. Jan. 17, 2019).

ing subjected to repeated assaults or attempted assaults.[105] While the Task Force is trying to create a streamlined reporting process for the victim of an in-flight assault,[106] this seems to focus on preventing liability for airlines instead of assisting victims and punishing the offender.

Lastly, the FAA Reauthorization Act does not require TSA representatives to be part of the Task Force.[107] If a mandatory reporting requirement is created—as this Comment suggests—the Task Force should include TSA. TSA oversees passenger security and has more direct ties with law enforcement.[108] It would logically follow that TSA is included and has a say in how to handle reporting and investigating in-flight sexual assaults. Additionally, TSA would likely be the agency responsible for ensuring the alleged assailant does not leave the airport prior to being detained.

### B. HOUSE BILL 5139

House Bill 5139 is a great start to addressing the responsibility airlines should have in responding to sexual assault. It supplements the FAA Reauthorization Act and recognizes that the airline, not just the victim, should report transportation assault and harassment to law enforcement because they are in a better posi-

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[105] While it is possible for flight attendants to move victims to seats away from their assailant, and thus limit their ability to be assaulted again, this is not always the crewmembers' response. *See, e.g.*, Nora Caplan-Bricker, *Flight Risk*, SLATE (Aug. 31, 2016, 5:58 AM), https://slate.com/human-interest/2016/08/flight-risk.html [https://perma.cc/VQM7-4A2E] (describing incident where female passenger was verbally and physically harassed mid-flight and had to beg to move to different seat); Melanie Cox, *Flight and Fight*, MARIE CLAIRE (Sept. 24, 2020), https://www.marieclaire.com/politics/a33252517/sexual-misconduct-on-airplanes/ [https://perma.cc/D66R-Z3F2] (discussing woman being groped on a Frontier Airlines flight and being forced to return to her seat next to assailant after reporting incident to flight crew). This is likely due to a lack of guidance or training. *See* Nathan Wilson, *WA Senator Makes New Push to Address Airline Sexual Assaults*, KIRO 7 (June 13, 2018, 11:45 AM), https://www.kiro7.com/news/local/first-on-kiro-7-wa-senator-makes-new-push-to-address-airline-sexual-assaults/769083070/ [https://perma.cc/KHU2-XZBG] (reporting 91.5% of flight attendants, out of 2000, received no written guidance or training on how to handle sexual assault from their airline).

[106] FAA Reauthorization Act § 339A(c)(2).

[107] *See id.* § 339A(b).

[108] Bob Burns & Jennifer Lapidow, *10 Things You Might Not Know About TSA*, U.S. TRANSP. SEC. ADMIN. BLOG (Oct. 13, 2017), https://www.tsa.gov/blog/2017/10/13/10-things-you-might-not-know-about-tsa [https://perma.cc/F3GC-44T7].

tion to do so.[109] As House Bill 5139 stands, however, it allows airlines flexibility to determine their own reporting policies.[110] This needs to be amended to provide more specific direction. One can expect significant pushback from commercial airlines that may not want to spend the money it would take to implement a specific reporting policy. This is especially true if the reporting requirements would mandate updating airplane technology.[111] Nonetheless, while flexibility in company policy is often beneficial from an economic standpoint, passenger safety should be prioritized. More specific requirements would (1) help ensure that an airline cannot find a loophole in the legislation; and (2) help courts uniformly assess airlines' responses to in-flight sexual assaults when determining liability. Further, specific reporting requirements would assist in ensuring that all in-flight assaults reported to crewmembers are addressed and investigated.

Overall, the FAA Reauthorization Act and House Bill 5139 are conduits of conversation for the issue of in-flight sexual assault. Yet, more responsibility should be placed on airlines to combat steadily increasing crime through reporting requirements. By examining the policies and purposes of other reporting requirements, one can see how the pending legislation on this issue fails to capitalize on the benefits more stringent reporting requirements could incur.

## V. OTHER MANDATED REPORTERS

Requiring airlines to report in-flight assaults is consistent with the policies and purposes of reporting requirements in other crimes. Further, a uniform mandated reporting policy would benefit victims and air carriers alike. The remainder of this Comment will address these two propositions.

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[109] *See* Stop Sexual Assault and Harassment in Transportation Act, H.R. 5139, 116th Cong. § 41727(b)(3) (1st Sess. 2019).

[110] *Id.* (noting there is no specific method to determine when notifying law enforcement is appropriate or how to do so).

[111] For an example of technology that assists airlines in reporting, see *Making Respect Real: Continued Work to Prevent and Address Sexual Misconduct*, ALASKA AIRLINES: BLOG (Nov. 9, 2018), https://blog.alaskaair.com/values/people/sexual-harassment-prevention/ [perma.cc/7FCZ-N2D6]. This technology is discussed further in Part VI, *supra*.

"If you see something, say something."[112] This is the slogan and title of the Department of Homeland Security's campaign encouraging ordinary, everyday citizens to report suspicious activity to their local law enforcement.[113] While this sort of reporting is encouraged and arguably imposes a moral duty, there is no universal law that requires citizens to report criminal activity.[114] Title 18 of the U.S. Code seems to require the reporting of felonies, but it generally only criminalizes concealment—not nonreporting.[115] Historically, only certain individuals in specific circumstances have been forced (and not just encouraged) to report.[116]

Lately, there has been a trend toward requiring more professionals and corporations to report criminal activity.[117] Requiring airlines to do the same in the case of sexual assault follows this trend; however, creating a reporting requirement for in-flight sexual assault raises the question of whether airlines should be required to report other in-flight crimes. While reliable statistics of in-flight crime are difficult to find, research indicates in-flight theft has been going on for years.[118] Similarly, there have been numerous, highly publicized incidents of in-flight assault.[119] If Congress were to create a reporting requirement for in-flight sexual assault, it would likely have the surplus benefit of the legislature considering mandated reporting for other in-flight crimes. While these benefits are outside of the scope of this Comment, it is useful to recognize the difficulties all in-flight crime imposes on airlines, passengers, and the justice system as a whole.

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[112] *If You See Something, Say Something*®, U.S. DEP'T OF HOMELAND SEC., https://www.dhs.gov/see-something-say-something [perma.cc/EZX6-7PJM].

[113] *Id.*

[114] *See* Candice Delmas, *The Civic Duty to Report Crime and Corruption*, 9 LES ATELIERS DE L'ÉTHIQUE 50, 55–56 (2014).

[115] 18 U.S.C. § 4; Sungyong Kang, *In Defense of the "Duty to Report" Crimes*, 86 UMKC L. REV. 361, 361 (2017).

[116] *See generally* Sandra Guerra Thompson, *The White-Collar Police Force: "Duty to Report" Statutes in Criminal Law Theory*, 11 WM. & MARY BILL RTS. J. 3, 5 (2002) (detailing types of reporting requirements affecting different professionals).

[117] *See id.*

[118] Beth Williams, *On-Board Theft: 10 Tips to Protect Valuables While You Snooze in the Sky*, CORP. TRAVEL SAFETY (Dec. 8, 2018), https://www.corporatetravelsafety.com/safety-tips/airline-on-board-theft/ [perma.cc/9UYH-XJUJ].

[119] *See, e.g.*, Madeleine Marr, *'You're Out of Control.' Plane Passenger Hits Husband with Laptop for Ogling Women*, MIA. HERALD (July 24, 2019), miamiherald.com/news/local/crime/article233056302.html.

The remainder of this Part will examine three mandatory reporting requirements and their underlying policies. It will also state how these policies could apply to an air carrier's duty to report in-flight assaults.

### A. Cruise Ship Reporting Requirements

First, the Cruise Vessel Security and Safety Act of 2010 (CVSSA) requires the owner of a cruise ship to report a crime to the FBI "as soon as possible after the occurrence on board the vessel of an incident involving homicide, suspicious death, a missing United States national, kidnapping, assault with serious bodily injury, [sexual crimes,] firing or tampering with the vessel, or theft of money or property in excess of $10,000."[120] Prior to the creation of this new reporting requirement, cruise ships did not have to alert law enforcement of crimes occurring on the high seas.[121] The reporting of crimes on cruise ships before 2010 was self-regulating, just as the airline industry is today.[122] "Without a legal duty, cruise companies ha[d] little incentive to voluntarily report or investigate crimes on vessels for fear of victims establishing civil liability against the companies."[123] This lack of reporting—combined with the large amount of time that passes before the FBI can access ships to investigate—posed a substantial problem for addressing onboard sexual assaults and often left victims without justice or closure.[124]

When the CVSSA was introduced, Congress observed that sexual assaults were the primary crime occurring on cruise ships and found issues with a lack of reporting to law enforcement and the public.[125] Congress further recognized the difficulties facing the FBI for securing crime scenes and investigating witnesses such as competing jurisdictions, being on the high seas, and the varying nationalities of the victims.[126] Accordingly, the CVSSA was immensely popular and passed with only four "no"

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[120] 46 U.S.C. § 3507(g)(3)(A)(i).

[121] Tiffany L. Peyroux, *The Cruise Vessel Security and Safety Act of 2010 Founders on Its Maiden Voyage*, 13 Loy. Mar. L.J. 74, 87 (2014).

[122] *See id.* at 88.

[123] *Id.*

[124] *See id.* at 91–92.

[125] *Id.* at 97–98; *see also* Jim Walker, *Accurate Cruise Crime Statistics Finally Available*, Cruise L. News (Oct. 8, 2016), https://www.cruiselawnews.com/2016/10/articles/crime/accurate-cruise-crime-statistics-finally-available/ [perma.cc/BKQ5-TDFP] (noting "sexual assault on cruise ships occurs with a similar regularity as you might find on land").

[126] Peyroux, *supra* note 121, at 98.

votes.[127] Part of the CVSSA's mission was to bring to light crime on cruise ships and prevent the industry from operating under "a veil of secrecy."[128] For this reason, the CVSSA allows for civil and criminal penalties for reporting requirement violations.[129]

The airline industry and the cruise ship industry should have the same heightened reporting requirements as both industries share the same concerns. First, airlines can be held liable for in-flight sexual assaults just as cruise ships can be held liable for onboard sexual assaults.[130] Thus, there is motivation for airlines to cover up in-flight crimes to avoid liability. Competition within both industries provides incentives to avoid lawsuits and losing money.

Further, just as "emergency 911" is nonexistent on some cruise ships,[131] passengers are usually incapable of reporting their assault to law enforcement mid-flight.[132] Difficulty in contacting law enforcement and receiving an immediate investigation beg for a mandatory reporting requirement to ensure that crewmembers who can easily contact law enforcement do so. Law enforcement can then give advice on how to preserve the scene, assist the victim, or deal with the assailant. This is true even if law enforcement cannot investigate until the plane has landed or the ship has docked.

The airline industry is self-regulating, just as the cruise ship industry used to be.[133] By passing the CVSSA, Congress intimated that self-regulation alone was unsatisfactory for the cruise line industry.[134] The similarities of the industries suggest Congress could find the commercial aviation industry likewise should not be self-regulating. Both industries carry over 25 million passengers a year with 25.8 million global cruise passengers

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[127] *Id.* at 101.

[128] *See id.*

[129] *See* 46 U.S.C. § 3507(h)(1).

[130] *See* Leticia M. Diaz, Barry H. Dubner & Nicole McKee, *Crimes and Medical Care on Board Cruise Ships: Do the Statistics Fit the Crimes?*, 27 LOY. CONSUMER L. REV. 40, 74 (2014); DeMay et al., *supra* note 31, at 6–20 (discussing liability for sexual assault aboard airplanes).

[131] Diaz et al., *supra* note 130, at 63.

[132] Note that the CVSSA does require that victims of sexual assault onboard cruise ships be given means to contact law enforcement; however, the investigation may still be postponed until the ship is docked. *See* 46 U.S.C. § 3507(d)(5).

[133] *See* Appelbaum, *supra* note 13; McMahon, *supra* note 13 (noting that since there are no mandatory reporting requirements, different airlines are allowed to regulate and report in different ways).

[134] Cruise Vessel Security and Safety Act of 2010, Pub. L. No. 111-207, § 2, 124 Stat. 2243, 2243–44.

in 2017[135] and 1 billion scheduled airline passengers in 2018.[136] Both industries transport travelers in an isolated manner where they lack the ability to easily contact the outside world if passengers could even determine who to contact. Both industries take passengers under similar care and control while traveling. It follows that the policies requiring reporting on cruise ships apply equally to the airline industry. This is particularly true considering how many more people travel on airplanes annually than on cruise ships.[137] More passengers, statistically speaking, means more opportunities for assault and likely more assailants.[138] Although passengers remain on cruise ships for longer than they are on airplanes, many in-flight sexual assaults occur while passengers are sleeping in their seats.[139] On cruise ships, passengers may sleep in bunk rooms with lockable doors. In some cases, lockable doors provide assailants an opportunity to shield themselves and their crime from onlookers;[140] in other cases, lockable doors (especially those with peepholes) should provide some security against assault that is not similarly available to passengers sleeping on airplanes.[141] Accordingly, passengers could be similarly vulnerable on airlines and cruise ships.

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[135] *2018 Cruise Industry Overview*, FLA.-CARIBBEAN CRUISE ASS'N, https://www.f-cca.com/downloads/2018-Cruise-Industry-Overview-and-Statistics.pdf [perma.cc/SQA3-Z4NR].

[136] *2018 Traffic Data for U.S. Airlines and Foreign Airlines U.S. Flights*, BUREAU TRANSP. STATS. (Oct. 2019), https://www.bts.dot.gov/newsroom/2018-traffic-data-us-airlines-and-foreign-airlines-us-flights [perma.cc/NU4Q-VCWR].

[137] *See 2018 Cruise Industry Overview*, *supra* note 135; *2018 Traffic Data for U.S. Airlines and Foreign Airlines U.S. Flights*, *supra* note 136.

[138] *See* Press Release, House Comm. on Transp. & Infrastructure, Chair DeFazio's Bill to Curb Sexual Assault and Harrassment in Passenger Transp. Clears Full House (Oct. 1, 2020), https://transportation.house.gov/news/press-releases/chair-defazios-bill-to-curb-sexual-assault-and-harassment-in-passenger-transportation-clears-full-house [https://perma.cc/N2CU-4SKA] (noting 119 reports of in-flight sexual assaults in 2019 alone compared to 260 reported sexual assaults aboard cruise ships since 2016).

[139] *E.g.*, David Williams & Carma Hassan, *Man Gets 9 Years for Sexually Assaulting an Airline Passenger While She Slept*, CNN (Dec. 14, 2018), https://www.cnn.com/2018/12/14/us/airplane-sexual-assault-sentence-trnd/index.html [perma.cc/B3RT-MQE7].

[140] *E.g.*, *Cruise Ship Security Practices and Procedure: Hearing Before the S. Comm. on Com., Sci., & Transp.*, 110th Cong. 12 (2007) (statement of Evelyn Fortier, Vice President, Policy, Rape, Abuse and Incest National Network (RAINN)) (describing crewmember raping passenger in her cabin room).

[141] Emanuella Grinberg, *Cruise Ship Security Bill Clears Congress*, CNN (July 11, 2010), https://www.cnn.com/2010/TRAVEL/07/01/cruise.ship.bill/index.html [https://perma.cc/3H5X-QZE6].

Lastly, critics of mandatory reporting requirements often say that requiring a report to law enforcement takes away an individual's autonomy and self-determination—it takes away the victim's decision of whether to report for one's self.[142] This argument fails in the airline and cruise ship context. First, if a victim reports the incident to crewmembers, whether on a plane or a cruise, he or she is already reporting the incident to what is essentially the highest authority available.[143] In such isolated circumstances, the crewmembers are often the only authority figures readily available to take action against an assailant.[144] Second, if a victim is reporting to a crewmember that he or she has been sexually assaulted, the cruise ship or airline is put on notice and has an obligation to act to protect other passengers.[145] Their liability for negligence may be enhanced if they do not tell law enforcement of the incident, particularly if the assailant continues traveling and assaulting others.[146] It is true that the victim may only report the incident to crewmembers so they may switch seats or cabins to avoid their assailant, without intending to report law enforcement. Yet, in passing the CVSSA, Congress indicated that the danger of allowing the assailant to go unreprimanded is too great, regardless of a passenger's motivation for reporting.[147] There is no reason this logic should not extend to the airline industry. The assailant may hurt other passengers in the future, and the airline should not open itself up to that sort of liability.

### B. Child Abuse Reporting Requirements

Similarly, the policies underlying child abuse reporting requirements apply to the airline industry. All states require at least some professional actors to report suspected child abuse to

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[142] *See* Joseph W. Barber, *The Kids Aren't All Right: The Failure of Child Abuse Statutes as a Model for Elder Abuse Statutes*, 16 Elder L.J. 107, 122–23 (2008).

[143] *Cruise Industry Oversight: Incidents Show Need for Stronger Focus on Consumer Protection: Hearing Before the S. Comm. on Com., Sci., & Transp.*, 113th Cong. 2 (2013) [hereinafter *Cruise Industry Oversight Senate Hearing*] (opening statement by Sen. John D. Rockefeller IV) (describing responsibility cruise ship's crewmembers have toward protecting passengers from crime while on board).

[144] *Id.*

[145] *See* K.T. v. Royal Caribbean Cruises, Ltd., 931 F.3d 1041, 1044 (11th Cir. 2019) (overturning a dismissal of a negligence claim against a cruise line when the crewmembers allegedly knew about sexual crimes against cruise ship passengers).

[146] *See id.*

[147] 46 U.S.C. § 3507(g)(3).

law enforcement.[148] This was federally mandated in 1974 when Congress enacted the Child Abuse Prevention and Treatment Act (CAPTA).[149] CAPTA threatened to withhold federal grants to states if they did not have mandatory reporting requirements.[150] Since all states had already passed some form of reporting law by 1967, CAPTA was essentially a reinforcement tactic.[151] Who is required to report varies by state, but even a state with the least comprehensive reporting laws still requires "medical and mental health professionals, school officials, law enforcement officers," and those in a "safety-sensitive position" to report suspected abuse.[152] Many of these requirements occurred because the media called for it: "[P]ress and broadcasters created an impetus for child abuse reporting laws."[153]

Regardless of how they came about or the specific requirements of each state, these reporting requirements all share a common purpose. The duty to report child abuse is designed to protect vulnerable children and catch wrongdoers.[154] Reporting notifies law enforcement of an incident and triggers an investigation in hopes of getting the child the help he or she needs, as well as punishing the wrongdoer and preventing future harm.[155] What differentiates child abuse from other crimes, and justifies its mandated reporting, is the vulnerability of the child. "If an adult is assaulted, he or she is more likely to be capable of reporting the incident to the authorities. Society's view of children, however, is that a child may be too young to protect himself or too frightened to report the abuse to the appropriate authorities."[156] The individuals generally required to report—such as medical professionals or teachers—are in a position to

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[148] Leonard G. Brown, III & Kevin Gallagher, *Mandatory Reporting of Abuse: A Historical Perspective on the Evolution of States' Current Mandatory Reporting Laws With a Review of the Laws in the Commonwealth of Pennsylvania*, 59 VILL. L. REV. TOLLE LEGE 37, 37 (2013).

[149] *See* 42 U.S.C. §§ 5101–5119.

[150] Brown & Gallagher, *supra* note 148, at 38.

[151] *Id.* at 37. CAPTA also created a mandatory reporting requirement for certain people who suspected child abuse on federal property. *Id.* at 46.

[152] *Id.* at 61 (describing the South Dakota mandatory reporting requirement).

[153] *Id.* at 40.

[154] Mary Harter Mitchell, *Must Clergy Tell? Child Abuse Reporting Requirements Versus the Clergy Privilege and Free Exercise of Religion.*, 71 MINN. L. REV. 723, 727–28 (1987).

[155] *See id.* at 728.

[156] Ellen Marrus, *Please Keep My Secret: Child Abuse Reporting Statutes, Confidentiality, and Juvenile Delinquency*, 11 GEO. J. LEGAL ETHICS 509, 514 (1998).

care for the child with access to special knowledge about the child's physical or mental well-being.

The purposes underlying reporting requirements of suspected child abuse—protecting the vulnerable and initiating criminal investigations—support issuing a reporting requirement for in-flight sexual assault.[157] While the Author does not intend to trivialize the horrors of child abuse or neglect,[158] being an airline passenger makes one vulnerable. If one is assaulted in-flight, they will largely rely on the flight crew for protection and real-time reporting to law enforcement.[159] In some cases, due to a flight crew's poor response, victims have been forced to remain seated next to their assailant.[160]

Further, crewmembers, like medical professionals and other mandatory child abuse reporters, are at least knowledgeable about crimes on airplanes, and they could receive additional training to respond to these types of situations.[161] Moreover, child abuse is a covert crime—even with mandatory reporting.[162] Similarly, the isolated nature of an airplane means in-flight sexual assault is covert.[163] Mandatory reporting in that moment will ensure law enforcement is notified quickly to improve

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[157] *See* Mitchell, *supra* note 154, at 727–28.

[158] Marrus, *supra* note 156, at 514.

[159] *See Experts Explain Why Sexual Assaults Occur On Airplanes & What Airlines Can Do to Stop It*, Ass'n of Flight Attendants-CWA, https://www.afacwa.org/experts_explain_why_sexual_assaults_occur_on_airplanes_what_airlines_can_do_to_stop_it [https://perma.cc/BLY3-R75W] ("The particular environment of planes can also make the experience of surviving sexual assault even more difficult. . . . [W]hen a victim is violated in a confined space, it can be even more distressing and exacerbate the feeling of helplessness, vulnerability, and powerlessness.") (internal quotations omitted); *see* Karen Schwartz, *How to Protect Yourself From Sexual Assault on a Plane*, N.Y. Times (Oct. 21, 2016), https://www.nytimes.com/2016/10/21/travel/how-to-protect-yourself-from-sexual-assault-on-a-plane.html [https://perma.cc/XUD2-EJCK] (stating one of the primary ways to protect against in-flight sexual assault is to report suspicious activity and any harassment to the flight crew and ensure they notify the pilot).

[160] *See* Elisha Fieldstadt, *Women Claim They Were Sexually Assaulted on Frontier Flights and Airline Did Nothing*, NBC News (Dec. 26, 2019), https://www.nbcnews.com/news/us-news/women-claim-they-were-sexually-assaulted-frontier-flights-airline-did-n1107231 [perma.cc/Z3PU-LGKT].

[161] Danny R. Veilleux, Annotation, *Validity, Construction, and Application of State Statute Requiring Doctor or Other Person to Report Child Abuse*, 73 A.L.R.4th 782, § 2(b) (1989) (discussing how training impacts duty to report); 49 U.S.C. § 44918 (discussing some training made available to airline crewmembers).

[162] Marrus, *supra* note 156, at 514.

[163] *See Experts Explain Why Sexual Assaults Occur On Airplanes & What Airlines Can Do to Stop It*, *supra* note 159 (noting in-flight sexual assault "is a crime that is not obvious" and conditions on planes make it more likely to occur).

the chances of preserving evidence and responding to the crimes effectively.[164]

### C. Hazardous Waste Reporting Requirements

Reporting requirements in environmental law present other parallels to the commercial airline context outside of demonstrating a passenger's vulnerability. The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA),[165] which was later reinforced by the Emergency Planning and Community Right-to-Know Act (EPCRA),[166] requires that if hazardous waste is released without permission in certain circumstances, it must be immediately reported to the U.S. government, state, local, or tribal officials.[167] One reason this requirement was created is so that the government could appropriately respond to the situation by investigating, organizing a cleanup, and evacuating citizens.[168] Another reason was to record inactive hazardous waste sites.[169] Essentially, this means that the reporting requirement "also contains record keeping requirements that enable the government to track potential threats to the environment."[170]

Under CERCLA and EPCRA, the one required to report the impermissible release of hazardous waste is the "person in charge" of the vessel or facility from which the waste was released.[171] In other words, the one responsible for reporting is the one entrusted with the care of the facility or vessel.[172] The purpose of environmental reporting requirements supports the idea that the general public needs protection from dangerous events beyond their control.[173]

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164 *See* Scott McFarlane, *Surge in Sexual Assaults on Airplanes*, NBC (June 12, 2015), https://www.nbcwashington.com/news/local/surge-in-sexual-assaults-on-airplanes/1982641/ [https://perma.cc/WFJ7-4PGS] ("Investigations [of in-flight sexual assault], though still possible, become more complicated after attackers and witnesses have left the scene.").

165 Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601–9675.

166 Emergency Planning and Community Right-to-Know Act, 42 U.S.C. §§ 11001–11050.

167 *See* 42 U.S.C. § 9603(a); Thompson, *supra* note 116, at 31–32.

168 *See* Thompson, *supra* note 116, at 34.

169 *Id.* at 33.

170 *Id.*

171 42 U.S.C. §§ 9603(a), 11004(a).

172 *See* Thompson, *supra* note 116, at 33.

173 *See id.* at 34.

Just as reporting hazardous waste is necessary for the government to appropriately respond to the situation,[174] airline members need to report the instances of in-flight sexual assault so that law enforcement may properly respond to the situation.[175] If the commercial airline does not report the incident to law enforcement when they are notified, the perpetrator may get away.[176] The fact that passengers come from around the world may further complicate this.[177] If assailants are not stopped as soon as the plane lands, they may retreat to a location outside the reach of U.S. law enforcement or far enough away that law enforcement lacks the resources to pursue an effective investigation.[178] Further, if airline crewmembers do not report the incident to law enforcement immediately, important details that were known at the time of the attack may be forgotten or witnesses to the incident may be unavailable.[179] The assailant may even be allowed to fly on the same airline again.[180] All of this

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[174] *See id.*

[175] *See supra* Parts II, IV.

[176] *E.g.*, Complaint for Damages at 5, Dvaladze v. Delta Air Lines, Inc., No. 2:18-cv-00297-RSL (W.D. Wash. July 25, 2019), ECF No. 1; *see also* Stephen Stock, Mark Villarreal & Kevin Nious, *Chaos on Commercial Flights: Unruly Airline Passengers Rarely Face Criminal Charges*, NBC (Dec. 16, 2015, 2:04 PM), https://www.nbcbayarea.com/news/local/unruly-passengers-escape-prosecution/143956/ [https://perma.cc/RXA9-QMHS] (noting that, similar to the lack of reporting requirements for in-flight sexual assault, airlines are not required to report unruly passengers—even if they must be detained mid-flight—and these passengers are often allowed to go free without facing any repercussions).

[177] *Air Passenger Travel Arrivals in the United States from Selected Foreign Countries*, BUREAU OF TRANSP. STATS., https://www.bts.gov/content/air-passenger-travel-arrivals-united-states-selected-foreign-countries-thousands-passenger [https://perma.cc/SV5G-CF7D].

[178] Brad Heath, *The Ones That Get Away*, USA TODAY (Oct. 21, 2014), https://www.usatoday.com/story/news/nation/2014/03/11/fugitives-next-door/6262719/ [https://perma.cc/VFU6-HEHS] (describing legal difficulties associated with securing justice once fugitives cross state lines); William Magnuson, *The Domestic Politics of International Extradition*, 52 VA. J. INT'L L. 839, 897 (2012) (describing uncertainty regarding what counts as compliance with international extradition treaties).

[179] *See, e.g.*, McFarlane, *supra* note 164 (describing incident where passenger notified law enforcement of an in-flight assault after landing, but charges could not be brought because "other passengers and potential witnesses had already dispersed").

[180] *See* Rheana Murray, *The Consequences of Being an Unruly Plane Passenger*, ABC NEWS (Sept. 4, 2014, 1:28 PM), https://abcnews.go.com/US/consequences-unruly-plane-passenger/story?id=25246721 [https://perma.cc/G6R8-HHXY] (reporting on American Airlines spokesperson Josh Freed's statement that while denying a passenger future travel aboard an airline is possible, it "rarely happens").

suggests that the airline should be required to report as soon as practicably possible. Just as a hazardous waste facility failing to report an incident may subject others to harm such as pollution or sickness, an airline failing to report sexual assault could create future victims.[181] While this sort of crime does not affect the general public in the same way hazardous waste might,[182] the benefit of requiring reporting—potentially protecting others from being victimized—arguably outweighs the cost of intruding on airline company policy with mandating reporting requirements.

Further, while a commercial airline would not necessarily be responsible for the in-flight assault in the way the one in charge of the vessel or facility leaking hazardous waste might,[183] they are still entrusted with the care of their passengers. Courts have demonstrated this by repeatedly stating that airlines can be held liable for passenger-on-passenger assault.[184] Requiring airline crewmembers to report in-flight crime makes sense, as they have more control over the vessel than their passengers and a responsibility to care for those onboard.[185] Lastly, as the FBI has stated, data on sexual assault aboard planes is likely incorrect.[186] Just as the CERCLA reporting requirement also functions to aid the development of a central database containing violations,[187] requiring airline crewmembers to report in-flight sexual assault could aid law enforcement agencies in collecting and maintaining more accurate data. In the age of technology, data is being used around the world to predict where crime is most likely to

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[181] *See* Thompson, *supra* note 116, at 34.

[182] *E.g.*, Isabelle Chapman, *A Landfill in Their Backyard*, CNN (Sept. 11, 2020), https://www.cnn.com/interactive/2020/09/us/september-11-cancer-rates-fresh-kills/ [https://perma.cc/5K88-WF9L] (describing liability to third parties for impacts of hazardous waste).

[183] *See* Thompson, *supra* note 116, at 33 (discussing how those required to report hazardous waste releases are the ones responsible for it because they oversee the facility or vessel).

[184] *See* DeMay et al., *supra* note 31, at 6–20.

[185] *See* Louis Cheslaw, *What Happens When a Law is Broken on a Plane*, CONDÉ NAST TRAVELER (July 8, 2019), https://www.cntraveler.com/story/what-happens-when-a-law-is-broken-on-a-plane [https://perma.cc/W5QL-QXEH]. When situations occur within the cabin, the flight crew is the group that responds. *Id.* Pilots, who respond to reports from other crewmembers onboard, "are also the ones in charge of reporting any incidents to air traffic control below"—it is this report that leads "to a police presence at the gate once the plane lands." *Id.*

[186] *See Sexual Assault Aboard Aircraft*, *supra* note 7 (mentioning how in-flight sexual assault is underreported).

[187] Thompson, *supra* note 116, at 33.

occur.[188] Law enforcement uses this information and deploys additional resources to deter crime where the patterns indicate it is likely to return.[189] If accurate data were collected regarding in-flight sexual assault, police could potentially review this information and deduce which flights are most likely to have attacks, which airlines need to increase safety procedures, and if other circumstances increase risk for an airline or passenger.[190]

Child abuse and environmental violations are very different types of crimes. Crimes on cruise ships can take a variety of forms. Child abuse generally affects one person and a broad range of individuals may be required to report it.[191] Environmental violations may affect a larger portion of the public and require only a few specified individuals to report them.[192] Crimes on cruise ships generally affect one individual at a time and restrict who is required to report.[193] Yet, the purposes and policies behind all of these varied, large-scale reporting requirements extend to the mandated reporting of in-flight sexual assault. Congress should instill a reporting requirement to better protect and respond to victims, prevent future attacks, decrease incentives for airlines to cover up crimes, assist law enforcement, and collect accurate data. Still, the best solution is not to allow an airline to report however they choose. Instead, a uniform reporting requirement should be enacted, as it is the most beneficial for the victims, the judicial system, and the airlines.

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[188] Andrej Kovacevic, *Police are Using Big Data to Predict Future Crime Rates*, SMART DATA COLLECTIVE (Nov. 7, 2018), https://www.smartdatacollective.com/police-are-using-big-data-to-predict-future-crime-rates/ [perma.cc/6AAS-8X98].

[189] JENNIFER BACHNER, PREDICTIVE POLICING: PREVENTING CRIME WITH DATA AND ANALYTICS 8–9 (2013), http://www.businessofgovernment.org/sites/default/files/Predictive%20Policing.pdf [https://perma.cc/68UQ-F46K].

[190] For more information on data-driven policing and how law enforcement uses the data it receives, see *id.*; WALTER L. PERRY, BRIAN MCINNIS, CARTER C. PRICE, SUSAN C. SMITH & JOHN S. HOLLYWOOD, PREDICTIVE POLICING (2013), https://www.ncjrs.gov/pdffiles1/nij/grants/243830.pdf [https://perma.cc/9CE7-4AT6]; Lawrence W. Sherman, Wolfson Prof. of Criminology and Dir. of Police Exec. Programme, Cambridge Univ., *Knowledge-Based Policing: India and the Global Revolution in Crime Prevention* (Apr. 8, 2010), *in* JINDAL GLOB. L. REV. 1, Sept. 2010, at *1.

[191] *See supra* Section V.B.

[192] *See* Thompson, *supra* note 116, at 33–34; *see also supra* Section V.C.

[193] *See supra* Section V.A.

## VI. THE BENEFITS OF A UNIFORM REPORTING REQUIREMENT

While the above Parts of this Comment have addressed some of the general benefits of a reporting requirement, the remainder of this Part will discuss the benefits of a uniform reporting requirement specifically. Unlike child abuse reporting requirements where each state has their own procedures and rules,[194] the federal government could enact a reporting requirement for in-flight sexual assault that would extend to all domestic commercial airlines regardless of jurisdiction.[195] As the federal government likely has the authority to enact such a requirement, it should do so, particularly in light of the benefits that come with a uniform reporting requirement.[196]

Air carriers can be liable for sexual assaults that occur in-flight even if it is a passenger-on-passenger assault.[197] As a common carrier's liability often turns on whether the incident was foreseeable or whether the vessel had a heightened duty of care, airlines are likely to decrease their chances of liability by adhering to a uniform reporting requirement that has been put in place.[198] For example, if a victim reports an in-flight assault, the crime is not reported, and the assailant escapes, the airline could be considered negligent in their treatment of the victim if the court finds they owe the victim a duty of care.[199] This is a likely result under common carrier doctrine.

On the other hand, if the federal government enacts a uniform reporting requirement with specific measures to be taken and procedures to be followed, airlines will have clearer guidelines as to how they should respond. With clarity in guidance, airlines will better understand what they should do, which in turn helps them understand their risks for liability. This clarity would also increase judicial efficiency, as there would be less case-by-case analysis (at least insofar as whether the airline

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194 *See* Brown & Gallagher, *supra* note 148, at 37–38.

195 *See Federal Aviation Administration*, *supra* note 59; *Mission*, *supra* note 63.

196 *Supra* Section III.B.

197 *See, e.g.*, Wallace v. Korean Air, 214 F.3d 293, 295 (2d Cir. 2000); Langadinos v. Am. Airlines, Inc., 199 F.3d 68, 74 (1st Cir. 2000); Tsevas v. Delta Air Lines, Inc., No. 97C0320, 1997 WL 767278, at *16 (N.D. Ill. Dec. 1, 1997).

198 *See* DeMay et al., *supra* note 31, at 13 (discussing common carrier liability).

199 *Cf.* R.M. v. Am. Airlines, Inc., 338 F. Supp. 3d 1203, 1206–07 (D. Or. 2018) (finding airline not liable when (1) the defendant was not intoxicated; (2) the attack was noticed by a flight attendant; (3) the passengers were separated; (4) law enforcement was notified immediately; and (5) law enforcement met the assailant upon landing).

should have reported), and the court may instead look to see whether they adhered to the uniform requirement. Yet, as House Bill 5139 suggests, adherence or failure to abide by a reporting requirement should not be dispositive in a court proceeding; it should be looked at as a factor to determine the airline's liability.[200] The court should still account for possible extenuating circumstances.

Additionally, as it currently stands, reporting requirements are dictated by the airlines themselves. While some companies, such as Alaska Airlines, have been praised for their recently enacted policies,[201] others have yet to respond to the increase in mid-air assaults.[202] If a mandatory, uniform reporting requirement was enacted, the airlines who have yet to respond to the increasing issue of in-flight sexual assault would be pushed to action. This could help keep passengers safer, shield airlines from liability, and encourage the airlines to enact other policies relating to in-flight sexual assaults. These policies could include additional training for the flight crew, guidance on how to treat a victim of an alleged assault, and regulations concerning when a passenger should be removed or forbidden from future flights with the airline.[203] By making the reporting requirement uniform, airlines will no longer dictate when to report. Uncertainty will be eliminated, and airlines do not have to hope their company reporting policies are sufficient to protect themselves from liability. It will also be more difficult for airlines to find loopholes in the hopes of shielding themselves from legal responsibility. Further, crewmembers will have to be trained on in-flight sexual assault—at least to the extent that they will have to be coached on when to report. A uniform reporting requirement ensures passengers can choose any airline and not have to worry

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[200] Stop Sexual Assault and Harassment in Transportation Act, H.R. 5139, 116th Cong. § 41727(d) (1st Sess. 2019).

[201] Allison Dvaladze, *Airline Industry Treats Sexual Assaults in the Skies Like an Inconvenience, Not a Crime*, USA TODAY (Apr. 1, 2019), https://usatoday.com/story/opinion/voices/2019/04/01/sexual-assault-airline-flight-elaine-chao-trump-boeing-column/3312204002/ [perma.cc/8F5F-Z26R] (applauding Alaska Airlines for their policies regarding in-flight assault).

[202] Kirk Johnson, *2 Airline Sexual Assault Cases Draw Charges and a Call for Help*, N.Y. TIMES (Aug. 30, 2018), https://www.nytimes.com/2018/08/30/us/airplane-assault-seattle.html [perma.cc/9733-TRE7] ("[M]any other airlines have been silent.").

[203] *See Making Respect Real: Continued Work to Prevent and Address Sexual Misconduct*, *supra* note 111 (discussing Alaska Airlines' new reporting and training policies).

about an incident of in-flight sexual assault going unreported when it occurs.[204]

A uniform reporting requirement does take away some of the airlines' autonomy and may require a price increase to instill the reporting procedures. For example, Alaska Airlines, currently at the forefront of airlines advocating for increased safety for passengers, has created a "24/7 hotline" and reporting tool.[205] This tool, called Report It!, is a safety app "installed on every company-issued mobile device" which allows crewmembers "to instantly report any allegation of harassment or assault, and flag it for investigation."[206] Despite the likely cost associated with building a new application,[207] Alaska Airlines found that it was a worthwhile price to pay to ensure passenger safety, assist in law enforcement investigations, and shield themselves from liability.[208] Further, existing FAA regulations could be said to impede airline autonomy and cost airlines a substantial amount of money.[209] As these regulations were passed, and many of them relate to passenger safety, it follows that airlines and Congress should be open to a mandated reporting requirement.

## VII. CONCLUSION

"For the women, men and children sexually assaulted while flying who have demanded action, as well as those who suffer in silence, the DOT must do more. . . . Sexual assault can no longer be treated as an inconvenience, it is a crime and must be treated as such."[210] As in-flight sexual assault victim Allison Dvaladze stated, the aviation industry can and needs to do more. The current lack of a reporting requirement for in-flight sexual assault prevents effective investigations by law enforcement and

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[204] Admittedly, this is something the normal passenger is unlikely to think about when choosing an airline; however, it could play a bigger role in the future as in-flight sexual assaults become more publicized. *See supra* Part II.

[205] *Making Respect Real: Continued Work to Prevent and Address Sexual Misconduct*, *supra* note 111.

[206] *Id.*

[207] While specific numbers for the cost to Alaska Airlines are unavailable, the cost of developing applications, such as the one Alaska Airlines employs, can range from $40,000 (simple apps) to $100,000 (complex apps). Kim Smith, *How Much Does It Cost to Create an App?*, GoodFirms, https://www.goodfirms.co/resources/mobile-app-development-cost [https://perma.cc/T6C6-ZDVU].

[208] *See Making Respect Real: Continued Work to Prevent and Address Sexual Misconduct*, *supra* note 111.

[209] *See* Aeronautics and Space, 14 C.F.R. §§ 1–1399 (2019) (consisting of all current FAA regulations).

[210] Dvaladze, *supra* note 201.

impedes justice for victims while allowing airlines to conceal crimes and escape liability.

The airline industry should follow the lead of the cruise ship industry and impose a uniform, mandatory reporting requirement such as the CVSSA.[211] While the CVSSA is not perfect and a similar reporting requirement alone will not be a solution to the issue of in-flight assault, the first step in finding solutions is knowing there is a problem.[212] A uniform, mandatory reporting law would inform the public and the airlines that Congress takes the safety of its traveling citizens seriously. It alerts airlines to the fact that they will be held accountable for the care of their passengers, promoting safety and better responses to sexual assault.

House Bill 5139 is a necessary first step to establishing mandatory reporting for airlines. House Bill 5139 should, and likely will, be passed into law,[213] but its vague wording and the discretion it leaves to the airline industry poses a potential for airlines to continue to avoid responsibility.[214] Congress should revise House Bill 5139 to make it specific and uniform. Further, Congress should continue to support the Task Force, so that the trend of recognizing and preventing sexual assault in all scenarios can be maintained.[215]

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[211] *See* 46 U.S.C. § 3507.

[212] For more information on the CVSSA and some of its initial shortcomings, see Peyroux, *supra* note 121, at 103–17.

[213] *See* Brown & Gallagher, *supra* note 148, at 39–40 (noting how media attention was part of the basis for enacting CAPTA). If the trend of media attention on abuse continues, House Bill 5139 likely will be passed. *See supra* Part II.

[214] *See* Stop Sexual Assault and Harassment in Transportation Act, H.R. 5139, 116th Cong. § 41727(b)(3) (1st Sess. 2019); *see also* Peyroux, *supra* note 121, at 117 (discussing vagueness as one shortcoming of the CVSSA).

[215] DeMay et al., *supra* note 31, at 3–5 (describing composition and purpose of the Task Force); *see also* Section III.C.1.


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# GROUNDED: HOW THE 737 MAX CRASHES HIGHLIGHT ISSUES WITH FAA DELEGATION AND A POTENTIAL REMEDY IN THE FEDERAL TORT CLAIMS ACT

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ABSTRACT

The over-delegation by the Federal Aviation Administration (FAA) of new aircraft design certification authority to the very companies seeking such certification has led to a stunning lack of oversight and bending to private economic interests. Congressional action must be taken to ensure that aircraft certification authority, if delegated to private entities, is not delegated to any entities with ties to the companies seeking certification, and FAA oversight must be tightened.

This Comment analyzes whether the Federal Tort Claims Act could provide a potential avenue for plaintiffs to challenge the FAA as it relates to its oversight and delegation to The Boeing Company (Boeing). In the face of inaction from the FAA, Boeing, and Congress, the judiciary provides the best hope for holding the FAA accountable when it delegates authority to private industry leaders like Boeing. It is likely well within the FAA's discretion to determine that the engineers at Boeing to whom Boeing would assign to this task are qualified in their engineering capabilities. However, if the FAA knew that economic pressures and factors outside of plane safety were guiding Boeing executives' directions to its inspecting engineers, it may have delegated its certification authority to unqualified individuals, which it cannot do.

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## I. INTRODUCTION

THE U.S. GOVERNMENT'S over-delegation of new aircraft design certification authority to the very companies seeking such certification has led to a stunning lack of oversight and bending to private economic interests. Congressional action must be taken to ensure that aircraft certification authority, if delegated to private entities, is not delegated to any entities with ties to the companies seeking certification, and Federal Aviation Administration (FAA) oversight must be tightened.

This Comment begins by describing the background of the Boeing 737 (737) aircraft and the recent 737 MAX accidents. The serious consequences of those crashes are explored, and the scope of the problem is put into perspective. The Comment then explains the relevant historical background of the FAA and the designation program, establishes the framework within which recent issues faced by The Boeing Company (Boeing) reside, and discusses how the delegation program came to be and how the FAA designates private parties as Organization Designa-

tion Authority (ODA) holders (ODA Holders). Next, it analyzes the Federal Tort Claims Act (FTCA) and how the Supreme Court has interpreted the discretionary function exception to the FTCA.

This Comment then assesses whether the FTCA could provide a potential avenue for plaintiffs to challenge the FAA's over-delegation of certification authority to Boeing. While this route was not historically open to plaintiffs, by delegating certain aspects of the safety inspection process to Boeing and failing to maintain oversight, the FAA's actions have moved outside the protection of the discretionary function exception, allowing suits against the FAA by injured plaintiffs. This Comment concludes by discussing why litigation is the best way to spur meaningful reform.

## II. HISTORICAL BACKGROUND

### A. The 737 MAX and Competition with Airbus

The Boeing 737 is one of the most widely recognizable passenger aircraft in the world. Since its first flight in 1967, the 737 has undergone a series of enhancements, culminating most recently with the 737 Next Generation (737NG) and the 737 MAX.[1] These upgrades were designed to provide more fuel-efficient engines, updated avionics and cabins, and lower operating costs, all while having enough in common with previous models that pilots could easily switch back and forth between them.[2] In 2006, Boeing began discussions to significantly upgrade or replace the 737NG with a new, more fuel efficient model.[3] By 2010, Boeing still had not made a decision when one of its chief rivals in the industry, Airbus SE (Airbus), announced the A320neo, "a re-engined, more efficient version of its A320, the main competitor to the 737."[4] These two industry titans have been in competition for almost half a century, and many have wondered whether the tradeoffs being made in the interest of

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[1] David Slotnick, *The First Boeing 737 Max Crash was 2 Years Ago Today. Here's the Complete History of the Plane That's Been Grounded Since 2 Crashes Killed 346 People 5 Months Apart*, Bus. Insider (Oct. 29, 2020, 12:55 PM), https://businessinsider.com/boeing-737-max-timeline-history-full-details-2019-9 [perma.cc/9N6W-8PKU].

[2] *Id.*

[3] *Id.*

[4] *Id.* Neo stands for new engine option.

competition were dangerous.[5] In 2011, Boeing's then-CEO feared that American Airlines, one of Boeing's exclusive customers, would switch to Airbus unless Boeing could convince them otherwise.[6] Boeing decided to upgrade the engines on the 737 and build a new plane, launching Boeing's effort to circumvent important regulatory hurdles.[7] American Airlines wound up purchasing from Airbus, but also ordered 100 next generation 737s from Boeing, and "[j]ust one month later, Boeing announced the 737 MAX family," the newest iteration of the 737.[8] A key selling point of the 737 MAX was its purported similarity with older models, which would make it easier for pilots and staff to adjust to without much additional training.[9] Significantly, and likely most important to Boeing executives, this provided a faster route to certification than what would be necessary for a brand new type of aircraft.[10] One of the key differences in the new plane was that the engines were larger, further forward, and higher up than the previous version.[11] This upgrade could cause the nose of the plane to pitch slightly upward in some situations, leading engineers to implement automated software called Maneuvering Control Augmentation System (MCAS), which would automatically push the nose down so that the plane stays level.[12] Though theoretically the pilots could fly both the old and new planes, "Boeing did not include training on MCAS in the pilots' manual, reasoning that the software would work in the background."[13] "MCAS was designed to take effect when a single sensor showed that the 'angle-of attack' was high," meaning the system would still respond if one of the two sensors broke.[14] Issues surrounding this system would

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[5] Peter Cohan, *Did Airbus Rivalry Drive Dangerous Tradeoffs for Boeing's 737 MAX?*, FORBES (Mar. 28, 2019, 9:14 AM), https://forbes.com/sites/petercohan/2019/03/28/did-airbus-rivalry-drive-dangerous-tradeoffs-for-boeings-737-max/ [perma.cc/BU8H-9JSV].

[6] Slotnick, *supra* note 1.

[7] Cohan, *supra* note 5; David Gelles, Natalie Kitroeff, Jack Nicas & Rebecca R. Ruiz, *Boeing Was 'Go, Go, Go' to Beat Airbus With The 737 Max*, N.Y. TIMES (Mar. 23, 2019), https://nytimes.com/2019/03/23/business/boeing-737-max-crash.html [perma.cc/N25Z-EHAJ].

[8] Slotnick, *supra* note 1.

[9] *Id.*

[10] *Id.*

[11] *Id.*

[12] Cohan, *supra* note 5; Slotnick, *supra* note 1.

[13] Slotnick, *supra* note 1.

[14] *Id.*

later prove catastrophic.[15] In 2015, the first 737 MAX was released, with its first test flight in 2016.[16] It gained certification from the FAA in 2017.[17] "By May 2018 . . . more than 130 [737 MAX] planes were in service with 28 different airlines around the world."[18]

### B. The Lion Air and Ethiopian Airlines Crashes

On October 29, 2018, Lion Air Flight 610 took off from Jakarta, Indonesia in the early hours of the morning.[19] The plane had given incorrect speed and altitude readings during a previous flight but was kept in service.[20] Immediately after takeoff, the pilots received stall warnings; their instruments were not giving readings on key data, and it seemed the plane was automatically being forced into a downward pitch.[21] Twelve minutes later, the plane crashed into the sea, killing all 189 on board.[22] Shortly after the investigation began, MCAS and the pilots' response became a focus, and the FAA and Boeing said they planned to issue an Airworthiness Directive on issues related to the system.[23]

Less than five months later, a disturbingly similar scene played out in Ethiopia, when an Ethiopian Airlines flight crashed, killing everyone on board.[24] Once again, pilots of a 737 MAX were unable to control the pitch of the aircraft, and MCAS forced the nose down and crashed the plane.[25] Shortly after the crash, although it was clear MCAS played a role, investigators were unsure how much fault lay with the pilots.[26] However, a year later, investigators determined that MCAS was entirely at

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[15] *See infra* Section II.B.

[16] Slotnick, *supra* note 1.

[17] *Id.*

[18] *Id.*

[19] *Id.*

[20] *Id.*

[21] *Id.*

[22] *Id.*

[23] *Id.*

[24] Tucker Reals, *Ethiopian Airlines Flight 302 Crash; Preliminary Report Says Pilots Followed Boeing's Guidance*, CBS News (Apr. 4, 2019, 12:53 PM), https://cbsnews.com/live-news/ethiopian-airlines-flight-302-crash-preliminary-report-today-live-updates-04-04-2019/ [perma.cc/E7WY-KD7P].

[25] *Id.*

[26] *Id.*

fault, shining an even more negative light on the aircraft itself and on Boeing.[27]

Ethiopian Airlines grounded the rest of its 737 MAX fleet the day of the crash.[28] The rest of the world followed suit, and soon the highly publicized global grounding of the plane was in full force.[29] However, the FAA was the last to do so.[30] Boeing initially thought it could get the software issue fixed and the planes back up and running by the end of March 2019.[31] But due to delays with the software updates, the FAA only cleared the 737 MAX aircraft to fly again in late 2020.[32]

### C. Fallout

The fallout from the crashes continues to grow, touching all aspects of government (particularly the FAA), the airline industry, and Boeing. The FAA continued to scrutinize the plane following delays in a potential fix, which led to the entire certification process coming under scrutiny.[33] Boeing has had to cut production of the 737 MAX, suffering significant losses.[34] "[It] is in talks with banks to secure a loan of $10 billion or more . . . as the company faces rising costs stemming from two fatal crashes of its 737 MAX planes."[35] Recently, Boeing announced that further delays are expected after the recent disclosure of a software issue.[36] These delays will continue to drive up costs as customers seek compensation for undelivered planes.[37] Airbus has now surpassed Boeing as the world's largest aircraft manu-

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[27] Simon Marks & Abdi Latif Dahir, *Ethiopian Report on 737 Max Crash Blames Boeing*, N.Y. Times (Mar. 9, 2020), https://nytimes.com/2020/03/09/world/africa/ethiopia-crash-boeing.html [perma.cc/Z4GM-PSUR].

[28] Slotnick, *supra* note 1.

[29] *Id.*

[30] *Id.*

[31] Slotnick, *supra* note 1; *American Airlines Plans to Return Boeing 737 Max to Service at Year-End*, Reuters (Oct. 18, 2020), https://reuters.com/article/us-boeing-737max-american-airline/american-air-to-run-boeing-737-max-at-year-end-bloomberg-news-idUSKBN27305O [perma.cc/A2KT-BLYR].

[32] Niraj Chokshi, *Boeing 737 Max Is Cleared by F.A.A. to Fly Again*, N.Y. Times (Nov. 18, 2020), https://www.nytimes.com/2020/11/18/business/boeing-737-max-faa.html [perma.cc/WZR5-KJSC].

[33] Slotnick, *supra* note 1.

[34] Leslie Josephs, *Boeing Is in Talks to Borrow $10 Billion or More as 737 Max Crisis Wears On*, CNBC (Jan. 20, 2020, 11:47 PM), https://cnbc.com/2020/01/20/737-max-crisis-boeing-seeks-to-borrow-10-billion-or-more.html [perma.cc/99TU-ZWPN].

[35] *Id.*

[36] *Id.*

[37] *Id.*

facturer, and Boeing's credit rating has been placed under review.[38]

Congress has gotten involved and launched investigations into Boeing, the FAA, and the relationship between the two. Dennis Muilenburg, former Boeing CEO, testified before Congress in October 2019 and was subject to intense questioning.[39] In December 2019, Boeing fired Muilenburg for his handling of the 737 MAX crises.[40] During the congressional investigation, FAA administrator Steve Dickson gave a shocking piece of testimony: "After the first crash, an internal FAA analysis showed a high likelihood of future crashes, as many as 15 over the 30–40 year life of the jet. However, the FAA let the plane keep flying."[41]

The FAA commissioned the Joint Authorities Technical Review (JATR), consisting of technical experts from the FAA, National Aeronautics & Space Administration, European Union Aviation Safety Agency, Australia, Brazil, Canada, China, Indonesia, Japan, Singapore, and the United Arab Emirates.[42] The review documented observations, findings, and a series of recommendations for actions that could be taken to help prevent similar tragedies from occurring.[43]

## III. CURRENT STATE OF THE LAW

### A. Brief History of the FAA

In 1926, at the urging of aviation industry leaders, and in an effort to help air travel reach its full commercial potential, the Air Commerce Act was passed.[44] Under this initial version of what would later become the Federal Aviation Act, the Secretary of Commerce was charged with "fostering air commerce, issuing and enforcing air traffic rules, licensing pilots, certifying aircraft, establishing airways, and operating and maintaining aids

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[38] *Id.*

[39] Slotnick, *supra* note 1.

[40] Josephs, *supra* note 34.

[41] Slotnick, *supra* note 1.

[42] *The Joint Authorities Technical Review (JATR) – Boeing 737 MAX Flight Control System*, Flight Safety Found. (Oct. 22, 2019), https://skybrary.aero/index.php/The_Joint_Authorities_Technical_Review_(JATR)_-_Boeing_737_MAX_Flight_Control_System [perma.cc/U3YF-9JCB].

[43] *Id.*

[44] *A Brief History of the FAA*, Fed. Aviation Admin. (Jan. 4, 2017, 4:42 PM), https://www.faa.gov/about/history/brief_history/ [perma.cc/ZN5M-N7BR]; Air Commerce Act of 1926, Pub. L. No. 69-254, 44 Stat. 568 (1926).

to air navigation."[45] One of the first tasks of the new Bureau of Air Commerce centered on air traffic control.[46] But by the early 1930s, the Department of Commerce's oversight responsibilities were already being called into question following crashes that killed a prominent football coach and a U.S. Senator.[47] To ensure a focus on safety, President Franklin Roosevelt signed the Civil Aeronautics Act in 1938, establishing the Civil Aeronautics Authority (CAA) to conduct investigations into aviation accidents and provide recommendations to prevent future accidents.[48] Just before the United States' entry into World War II, the CAA took full control over air traffic control towers, making air traffic control a permanent federal responsibility.[49] However, in 1956, a midair collision killed 128 people and highlighted the need for even greater oversight and safety control of national airspace.[50]

In 1958, the Federal Aviation Act was passed, transferring the CAA function to the new independent Federal Aviation Agency.[51] Feeling a need for a coordinated transportation system among all modes of transportation, Congress authorized the creation of the Department of Transportation in 1966 and 1967.[52] The Federal Aviation Agency became known as the FAA, and oversight of the FAA soon transitioned to the Department of Transportation.[53] However, the new agency was not just tasked with safety, but also with fostering air commerce.[54] As one commenter has noted, "This additional imperative has had a profound impact on the development of the FAA and its administrative functions over the past four decades."[55] Thus, from the beginning, the FAA has had to balance airline safety against commercial success in the airline industry—two positions that will inevitably conflict from time to time.[56] Concerns over this

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[45] *A Brief History of the FAA, supra* note 44.

[46] *Id.*

[47] *Id.*

[48] *Id.*; *see also* 49 U.S.C. § 1131.

[49] *A Brief History of the FAA, supra* note 44.

[50] *Id.*

[51] *Id.*; Federal Aviation Act, Pub. L. No. 85-726, 72 Stat. 731 (1958).

[52] *A Brief History of the FAA*, *supra* note 44.

[53] *Id.*

[54] Federal Aviation Act, pmbl.

[55] Mark C. Niles, *On the Hijacking of Agencies (And Airplanes): The Federal Aviation Administration, "Agency Capture," and Airline Security*, 10 AM. U. J. GENDER SOC. POL'Y & L. 381, 407 (2002).

[56] *Id.*

"dual mandate" led to statutory amendments removing the "promoting" language and focusing more on safety.[57] Nonetheless, "[o]ne salient apparent consequence of the FAA's dual mandate has been its extensive reliance on the private entities it regulates."[58]

### B. The Organization Designation Authority: Delegation of Certification Authority to Private Entities

Part of the legislation directing the Secretary of Transportation to promote safety in the airline industry granted the Secretary the discretion to "prescribe reasonable rules and regulations" governing aircraft inspection, including how the inspections would be accomplished.[59] Congress, however, emphasized that air carriers themselves "retained certain responsibilities to promote the public interest in air safety."[60] Congress established a certification process to monitor and control how the airline industry complied with the regulations.[61] At each step in this process, FAA employees inspect materials submitted by aircraft manufacturers for compliance, then issue the appropriate certificate to allow the manufacturers to produce and market their products.[62]

Step one in this process is known as type certification.[63] This involves obtaining FAA approval of the plane's basic design.[64] "By regulation, the FAA has made the applicant itself responsible for conducting all inspections and tests necessary to determine that the aircraft comports with FAA airworthiness requirements."[65] During this process, a prototype of the new

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[57] *Id.* at 408.

[58] *Id.* at 413.

[59] United States v. S.A. Empresa de Viacao Aerea Rio Grandense (*Varig Airlines*), 467 U.S. 797, 804 (1984).

[60] *Id.*

[61] *Id.*

[62] *Id.* at 805.

[63] *Id.*; 14 C.F.R. §§ 21.11–.55 (2020).

[64] *Varig Airlines*, 467 U.S. at 805.

[65] *Id.* (citing 14 C.F.R. §§ 21.33, 21.35).

> Each applicant must make all inspections and tests necessary to determine
>
> (1) Compliance with the applicable airworthiness, aircraft noise, fuel venting, and exhaust emission requirements;
> (2) That materials and products conform to the specifications in the type design;
> (3) That parts of the products conform to the drawings in the type design; and

plane is developed, and ground and flight tests are conducted.[66] The FAA then reviews all the submitted data and, if it finds the proposed design meets the minimum safety standards, it approves the design and issues a type certificate.[67] However, production still cannot begin.[68] Before production, a company must obtain a production certificate allowing it to produce copies of the prototype for commercial use.[69] "To obtain a production certificate, the manufacturer must prove to the FAA that it has established and can maintain a quality control system to assure that each aircraft will meet the design provision of the type certificate."[70] While this certificate allows the manufacturer to mass produce the new aircraft, it still cannot be put into service.[71] First, the FAA must grant an airworthiness certificate, essentially assuring the particular plane is safe for flying.[72]

When an aircraft manufacturer like Boeing wants to upgrade its planes and introduce a major change in its design, yet another certificate is required: a supplemental type certificate.[73]

> If a person holds the [type certificate] for a product and alters that product by introducing a major change in type design that does not require an application for a new [type certificate] under § 21.19, that person must apply to the FAA either for an STC, or to amend the original type certificate under subpart D of this part.[74]

To obtain this supplemental type certificate, the altered aircraft must meet its airworthiness requirements.[75] Similar to the prior steps, the applicant must conduct the required inspections and tests to ensure its product complies with regulations.[76] However, this is no small task. The FAA has a limited number of engineers

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> (4) That the manufacturing processes, construction and assembly conform to those specified in the type design.

14 C.F.R. § 21.33(b).

66 *Varig Airlines*, 467 U.S. at 805–06.

67 *Id.* at 806.

68 *Id.*

69 *Id.*; 14 C.F.R. §§ 21.131–.150.

70 *Varig Airlines*, 467 U.S. at 806.

71 *Id.*

72 *Id.*; 14 C.F.R. § 21.183.

73 *Varig Airlines*, 467 U.S. at 806 (citing 14 C.F.R. § 21.113).

74 *Id.* (citing 14 C.F.R. § 21.113).

75 *Id.* (citing 14 C.F.R. § 21.115(a)).

76 *Id.*

and employees.[77] "[R]oughly 700 individuals are responsible for ALL design approvals, production & continued airworthiness of everything that flies and of that, maybe 400 are engineers."[78] In contrast, private companies like Boeing employ thousands of employees. "According to the Boeing website, it has over 45,000 engineers spread throughout the entire company. [With s]uch a deep roster of talent, [Boeing] has incredibly deep and specific expertise for new designs and to manage the safety and airworthiness of the nearly 14,000 Boeing airplanes flying today."[79]

In response to the FAA's limited resources, Congress has authorized the FAA to delegate some of its testing authority.[80] The FAA "may delegate to a qualified private person, or to an employee under the supervision of that person, a matter related to (A) the examination, testing, and inspection necessary to issue a certificate under this chapter; and (B) issuing the certificate."[81] Based on this provision, the FAA created the ODA program to delegate to private organizations its authority to inspect aircraft designs and issue certificates.[82] "An FAA Designation 'allows an organization to perform specified functions on behalf of the Administrator related to engineering, manufacturing, operations, airworthiness, or maintenance.'"[83] This ODA system is designed to be a system of direct oversight.

Generally, to be considered as an ODA, an applicant must:

(1) Have sufficient facilities, resources, and personnel, to perform the functions for which authorization is requested;
(2) Have sufficient experience with FAA requirements, processes, and procedures to perform the functions for which authorization is requested; and
(3) Have sufficient, relevant experience to perform the functions for which authorization is requested.[84]

According to federal regulations:

The ODA Holder must—

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[77] Mike Borfitz, *What FAA Delegation Does—How and Why?*, AVIATION TECH. SOLS.: BLOG (Jan. 2, 2020), https://jdasolutions.aero/blog/what-faa-delegation-does-how-and-why/ [perma.cc/3QVB-QUGS].

[78] *Id.*

[79] *Id.*

[80] *Id.*

[81] 49 U.S.C. § 44702(d)(1).

[82] Riggs v. Airbus Helicopters, Inc., 939 F.3d 981, 984 (9th Cir. 2019).

[83] *Id.* (citing 14 C.F.R. § 183.41(a) (2020)).

[84] 14 C.F.R. § 183.47.

> (a) Comply with the procedures contained in its approved procedures manual;
> (b) Give ODA Unit members sufficient authority to perform the authorized functions;
> (c) Ensure that no conflicting non-ODA Unit duties or other interreference affects the performance of authorized functions by ODA Unit members;
> (d) Cooperate with the [FAA] Administrator in his performance of oversight of the ODA Holder and the ODA Unit;
> (e) Notify the [FAA] Administrator of any change that could affect the ODA Holder's ability to continue to meet the requirements of this part within 48 hours of the change occurring.[85]

Though its origins date back to the 1950s, the ODA program itself began in 2005 and was not fully implemented until 2009.[86] This system relies heavily on the integrity and transparency of the ODA holder and strict, careful oversight by the FAA.

### C. The FTCA and the FAA

In 1946, Congress enacted the Federal Tort Claims Act (FTCA) as part of the Legislative Reorganization Act.[87] The FTCA authorizes suits against the United States for damages:

> [F]or injury or loss of property, or personal injury or death caused by the negligent or wrongful act or omission of any employee of the Government while acting within the scope of his office or employment, under circumstances where the United States, if a private person, would be liable to the claimant in accordance with the law of the place where the act or omission occurred.[88]

However, there are exceptions; the FTCA does not waive federal sovereign immunity in all respects.[89] In particular, under the discretionary function exemption,[90] the FTCA does not apply to

> [a]ny claim based upon an act or omission of an employee of the Government, exercising due care, in the execution of a statute or regulation, whether or not such state or regulation be valid, or

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[85] *Id.* § 183.57.

[86] Roncevert Ganan Almond, *After the Max: Rebuilding U.S. Aviation Leadership*, 60 Va. J. Int'l L. Online 1, 14 (2019).

[87] David S. Fishback & Gail Killefer, *The Discretionary Function Exception to the Federal Tort Claims Act:* Dalehite *to* Varig *to* Berkovitz, 25 Idaho L. Rev. 291, 293 (1989).

[88] 28 U.S.C. § 1346(b).

[89] Fishback & Killefer, *supra* note 87, at 293.

[90] *Id.* at 294.

> based upon the exercise or performance or the failure to exercise or perform a discretionary function or duty on the part of a federal agency or an employee of the Government, whether or not the discretion involved be abused.[91]

The scope of the discretionary function exemption has been an area of dispute since the passage of the FTCA.[92] "On the one hand, some saw the exception as standing for the simple proposition that the FTCA could not be used to review high-level policy decisions. On the other hand, some saw the exception as severely limiting what otherwise would have been a very broad waiver of sovereign immunity."[93]

The seminal case regarding interpretation of the exception and the scope of the waiver is *Dalehite v. United States*.[94] In that negligence case, explosions destroyed much of Texas City, Texas and killed hundreds of people.[95] The cause of the explosions was fertilizer the government made and shipped to Europe as post-war aid.[96] The easily-ignitable fertilizer was packaged in flammable paper containers with no hazard warning, leading to large explosions during loading onto ships.[97] The plaintiffs alleged negligence by the large body of officials and employees involved in the program.[98] Though the Supreme Court did not determine where the line for discretion ends, it held that the actions of the federal government—the decision to start the program and the actions taken in aid of the program—were not actionable as they involved some measure of discretion.[99] The Court noted that "[w]here there is room for policy judgment and decision there is discretion. It necessarily follows that acts of subordinates in carrying out the operations of government in accordance with official directions cannot be actionable."[100] Critics of the decision noted its language was incredibly broad and could potentially encompass almost everything "except the most routine postal truck injury-type cases."[101]

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[91] *Id.* (citing 28 U.S.C. § 2680(a)).

[92] *Id.*

[93] *Id.*

[94] *Id.* (citing Dalehite v. United States, 346 U.S. 15 (1953)).

[95] *Id.*

[96] *Id.*

[97] *Id.* at 294–95.

[98] *Id.* at 295.

[99] *Id.*

[100] *Id.* (citing Dalehite v. United States, 346 U.S. 15, 35–36 (1953)).

[101] *Id.* at 296.

In *United States v. S.A. Empresa De Viacao Aerea Rio Grandense (Varig Airlines)*, a 1984 case addressing FAA delegation, the Supreme Court attempted to clarify its position and understanding of the discretionary function exemption.[102] The *Varig* Court held that the discretionary function exemption barred the plaintiff's FTCA suit challenging the FAA's decision to delegate responsibility for compliance with FAA safety regulations to the aircraft manufacturer and its means of monitoring compliance.[103] "The *Varig* Court explained that Congress included the discretionary function exception 'to prevent judicial second-guessing of legislative and administrative decisions grounded in social, economic, and political policy through the medium of a tort suit.'"[104] The Court stressed that the exception not only protects discretionary acts of the government in its conduct regulating role but also protects its policy judgments.[105] Later Supreme Court decisions defined the outer limits of the discretionary function exemption,[106] stating that the exemption effectively does not apply when a statute, regulation, or policy specifically prescribes a course of action for a government employee to follow.[107] It is within this legal framework that this Comment considers the FTCA as a potential remedy for plaintiffs wronged by negligent government acts related to the Boeing 737 MAX crashes.

## IV. ANALYSIS

The legal issues facing Boeing and the FAA are extensive and are not fully explored in this Comment.[108] These include lawsuits against Boeing by the families of the victims, claims for compensation from airlines that have unfulfilled orders for the 737 MAX, and lawsuits by Boeing shareholders alleging fiduciary breaches.[109] While these suits address ancillary problems,

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[102] *Id.* (citing United States v. S.A. Empresa de Viacao Aerea Rio Grandense (*Varig Airlines*), 467 U.S. 797 (1984)).

[103] *Id.* at 298.

[104] *Id.* (quoting *Varig Airlines*, 467 U.S. at 813–14).

[105] *Id.*

[106] *Id.* at 301.

[107] *Id.* at 302 (citing Berkowitz v. United States, 486 U.S. 531, 536 (1988)).

[108] *See* Arthur I. Willner, Raymond L. Mariani & Emily K. Doty, *Recent Developments in Aviation Law – 2019*, 85 J. AIR L. & COM. 221, 250–58 (2020).

[109] Sinéad Baker, *Here Are All the Investigations and Lawsuits that Boeing and the FAA are Facing After the 737 Max Crashes Killed Almost 350 People*, BUS. INSIDER (June 24, 2019), https://www.businessinsider.com/boeing-737-max-crisis-list-lawsuits-investigations-faces-faa-2019-5 [https://perma.cc/KM4E-VS7E]; Tom Hals & Tracy

they do not get to the heart of the issue—there are serious flaws in the aircraft certification process that allowed the 737 MAX to fly. These structural failures fall into a few specific categories, each of which can be addressed through legislation or through FTCA claims against the FAA. The JATR report took issue with the FAA's failures to: (1) designate flight-path-altering changes as "significant" changes, which would have subjected the certification to stricter standards;[110] (2) conduct whole aircraft inspection, determining how MCAS would interplay with other systems;[111] (3) delegate inspection duty to individuals or entities with MCAS expertise;[112] (4) immediately ground the 737 MAX;[113] and (5) take steps to ensure the impartiality of delegated safety inspectors with compromising ties to Boeing.[114] Two primary issues include: (1) the meaning of "qualified private" individuals under the statute authorizing the FAA to delegate its safety inspection authority; and (2) whether the director of the FAA has full discretion to determine who constitutes a qualified private individual.

### A. The FTCA as an Avenue to FAA Accountability

Federal agencies such as the FAA are largely shielded from lawsuits for negligence and other claims under the discretionary function exemption of the FTCA.[115] Under the exemption, claims cannot be brought against government employees who, while executing a duty prescribed by statute or regulation, perform a "discretionary function or duty on the part of a federal agency or any employee of the government, whether or not the discretion involved be abused."[116] Since Congress did not define a "discretionary function," the scope of this exemption has

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Rucinski, *Lawsuit Against Boeing Seeks to Hold Board Liable for 737 MAX Problems*, Reuters (Nov. 18, 2019, 3:32 PM), https://reuters.com/article/us-boeing-737max-lawsuit-board/lawsuit-against-boeing-seeks-to-hold-board-liable-for-737-max-problems-idUSKBN1XS2I3 [perma.cc/M9T3-QB2Q]; *Boeing Settles First Lawsuit With 737 Max Crash Families*, DW (Sept. 25, 2019), https://dw.com/en/boeing-settles-first-lawsuit-with-737-max-crash-families/a-50587098 [perma.cc/5P4Q-YZNJ].

[110] Joint Auths. Tech. Rev., Boeing 737 MAX Flight Control System Observations, Findings, and Recommendations, at I (2019).

[111] *Id.* at 6.

[112] *Id.* at 26.

[113] *Id.* at 49.

[114] *Id.* at 30.

[115] 28 U.S.C. § 2680(a).

[116] *Id.*

largely been borne out by judicial decisions. Courts use a generalized two-part test to determine if the exemption applies.[117] First, the Court determines whether the action is discretionary, involving "an element of judgment or choice" in the absence of a law or policy that prescribes a course of action."[118] Second, if the conduct is discretionary, the judgment must be "the kind that the discretionary function exception was designed to shield"—those actions based on policy analysis.[119]

In the case of the 737 MAX certification process, there are three areas where fault may be found and where the discretionary function exemption may apply: (1) the FAA's delegation of portions of the certification process to Boeing via the FAA's ODA program;[120] (2) FAA oversight of the process by the FAA's Boeing Aviation Safety Oversight Office (BASOO);[121] and (3) the issuance of the amended type certificate for the 737 MAX with MCAS installed.[122]

### *1. Delegation of the Certification Process to Boeing*

While it is undisputed that the FAA is allowed to delegate certification authority to private parties and that the ODA program as a whole is a discretionary function,[123] it is worth questioning whether delegating the MCAS certification process falls under the FTCA exemption. In 1984, the Supreme Court faced a similar situation in the *Varig Airlines* case. Following an accident that killed 124 people involving a Boeing 707 aircraft, plaintiffs tried to file suit against the FAA alleging negligence in "failing to inspect certain elements of aircraft design" before issuing certification. Plaintiffs took specific issue with the "spot-check" FAA review method and the application of that method to the aircraft involved in the case.[124]

The Supreme Court held the discretionary function exemption shielded the FAA because its decisions about how to conduct its compliance review are discretionary actions "of the most

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[117] Berkovitz v. United States, 486 U.S. 531, 536–37 (1988).

[118] *Id.*

[119] *Id.*

[120] JOINT AUTHS. TECH. REV., *supra* note 110, at 26.

[121] *Id.*

[122] *Id.* at 9.

[123] United States v. S.A. Empresa de Viacao Aerea Rio Grandense (*Varig Airlines*), 467 U.S. 797, 807 (1984).

[124] *Id.* at 819.

basic kind."[125] The FAA was within its statutory rights to consider the resources it has available, decide how to delegate its certification authority, and determine how it would oversee the designee's inspection process.[126] The statute authorizes the FAA to delegate to a qualified private person a matter related to issuing certificates or examination and testing necessary to issue a certificate.[127] Because the statute does not describe a specific course of action to be taken by the FAA or designee in the certification process, the Court ruled that such a decision was within the discretion of the FAA and the designee.[128] While the Court was correct that the statute's language is broad and general, Congress set forth a qualification which constrains the delegation: the designee must be a *qualified* private individual.[129] It is not within the discretion of the FAA to designate an unqualified individual to conduct inspections or certify the aircraft. Here, there are serious concerns about the qualifications of those persons inspecting and certifying MCAS.[130]

Among other concerns, FAA engineers and Boeing employees raised red flags about the lack of qualified engineers available to review changes to the aircraft, including MCAS.[131] In 2005, Congress (in response to industry lobbying efforts) allowed Boeing to choose the engineers who would assist with the FAA's review and certification process.[132] Some FAA engineers have commented that, over time, this change has led to an inability to monitor what was happening at Boeing.[133] During the 737 MAX's development, two of the BASOO's most prominent and experienced engineers—who were responsible for flight control systems including MCAS—resigned and were replaced by an engineer with "little experience in flight controls" and a new hire fresh out of school.[134] "People who worked with the two [new] engineers said they seemed ill-equipped to identify any

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[125] *Id.* at 819–20.

[126] *Id.*; *see also* 49 U.S.C. § 44702(d).

[127] *Varig Airlines*, 467 U.S. at 807; 49 U.S.C. § 44702(d).

[128] *Varig Airlines*, 467 U.S. at 805.

[129] *See supra* Section III.B.

[130] Natalie Kitroeff, David Gelles & Jack Nicas, *The Roots of Boeing's 737 Max Crisis: A Regulator Relaxes Its Oversight*, N.Y. TIMES (July 27, 2019), https://nytimes.com/2019/07/27/business/boeing-737-max-faa.html [perma.cc/NF9H-RD3F].

[131] *Id.*

[132] *Id.*

[133] *Id.*

[134] *Id.*

problems in a complex system like MCAS."[135] Furthermore, while the FAA originally retained certification authority over MCAS's addition, it later delegated that authority to Boeing.[136]

With so much authority being delegated to Boeing, it is important to determine whether those involved in the Boeing ODA are qualified private people within the meaning of the statute. Federal regulations outlining the qualifications and duties of ODAs are a good starting point to examine who counts as a qualified private individual.[137] To qualify, an applicant must generally have sufficient facilities, resources, and experience to conduct the duties that have been delegated to them—in this case, certifying the changes made to the aircraft, including MCAS.[138] It is likely well within the FAA's discretion to determine if the engineers that Boeing would assign to this task are qualified in their engineering capabilities. However, it is the responsibility of the ODA Holder (Boeing) to "[e]nsure that no conflicting non-ODA duties or other interference affects the performance of authorized functions by ODA Unit members."[139] Accordingly, Boeing has a duty to ensure no undue pressure or influence, such as a race to produce a plane before a competitor, affects the diligence of engineers tasked with certifying the safety of the new systems. It stands to reason that Boeing's inability to ensure it meets this responsibility could render it unqualified to hold an ODA designation. Therefore, if the FAA knew economic pressures and factors other than plane safety guided Boeing's directions to its inspecting engineers, then the FAA delegated its certification authority to an unqualified individual, which it cannot do.[140]

There is evidence that, throughout the 737 MAX certification process, Boeing placed profit-motivated pressures on its employees and the FAA. According to the JATR's findings, "signs were reported of undue pressures on Boeing ODA engineering unit members . . . performing certification activities on the B737 MAX program, which further erodes the level of assurance in this system of delegation."[141] According to a former Boeing engineer, the company "puts its 737 MAX engineers under immense

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[135] *Id.*

[136] JOINT AUTHS. TECH. REV., *supra* note 110, at 26.

[137] *See* 14 C.F.R. §§ 183.47, 183.57 (2020).

[138] *Id.* § 183.47(a).

[139] *Id.* § 183.57(c).

[140] *See* 49 U.S.C. § 44702(d).

[141] JOINT AUTHS. TECH. REV., *supra* note 110, at VII.

pressure to lower production costs and to downplay new features to avoid scrutiny" by the FAA.[142] The engineer said he saw "a lack of sufficient resources to do the job in its entirety."[143] Given how intertwined Boeing's officials are with the FAA, it is possible that the FAA was at least aware of the possibility of undue pressure or influence being asserted on the engineers responsible for the certification.[144] Given the evidence of undue pressure and influence, the perceived inability of the Boeing engineers' ability to complete their safety certification directives, and the qualification requirements of ODA Holders, there is a colorable argument that the FAA's designation to Boeing of certification authority over MCAS was to an unqualified private individual, which is forbidden by the statute.[145] This could potentially bar the application of the discretionary function exemption and allow families of those killed in the crashes to bring FTCA suits against the FAA.

If the first prong of the *Berkovitz* test is not met because authority was delegated to private individuals who were not qualified, there is no need to move on to the second prong—the discretionary function exemption does not apply. However, even if the second prong does not need to be satisfied, analysis can still demonstrate the principle that courts strive not to second guess agency policy decisions.[146] A growing body of evidence suggests the delegation in this case was not made on policy grounds, but was instead intended to tilt the scales in Boeing's race against Airbus.[147] Permitted policy considerations arguably do not include the economic interests of a single airplane manufacturer.

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[142] Alexandra Ma, *A Former Boeing 737 Max Engineer Said He Was 'Incredibly Pressurized' to Keep Costs Down and Downplay New Features to Avoid FAA Scrutiny*, BUS. INSIDER (July 29, 2019, 5:24 AM), https://businessinsider.com/boeing-737-max-former-engineer-pressure-costs-avoid-faa-scrutiny-2019-7 [perma.cc/8JLN-HF5A].

[143] *Id.*

[144] *See* Kitroeff et al., *supra* note 130.

[145] *See supra* Section III.B.

[146] Fishback & Killefer, *supra* note 87, at 302 (internal citations and quotations omitted).

[147] Thomas Kaplan, *After Boeing Crashes, Sharp Questions About Industry Regulating Itself*, N.Y. TIMES (Mar. 26, 2019). https://nytimes.com/2019/03/26/us/politics/boeing-faa.html [perma.cc/YM2X-7W89].

### *2. Improper FAA Oversight and Issuing the Certificate—A Dead End*

The most glaring and well-publicized criticism of the 737 MAX crisis is that there is a significant lack of meaningful FAA oversight over the Boeing ODA program and the 737 MAX certification process.[148] Throughout the 737 MAX certification process, the FAA continually delegated more of its oversight responsibility to Boeing.[149] Members of the BASOO program in charge of oversight complained they were underqualified and unable to understand the significance of MCAS.[150] "For example, during an initial project review, an FAA engineer failed to detect that a manufacturer's certification plan did not demonstrate compliance with specific aviation regulations governing design and construction of aircraft flight controls."[151] However, the FAA's ODA oversight duties are even more generalized and vague, requiring little more than merely overseeing the ODA in unspecified terms.[152] The FAA engineers had no explicit duty to review MCAS themselves.[153] It is likely within the discretionary function exemption for the FAA to determine what oversight is appropriate and who to place on any oversight committee regarding a specific certification, as the *Varig Airlines* case states.[154]

Beyond the *Varig* decision, other circuit courts have reinforced the point that oversight-based allegations of negligence on the part of the FAA are barred by the discretionary function exemption.[155] In *Alinsky v. United States*, victims of an aircraft collision tried to sue the FAA under the FTCA, alleging, among other things, that the agency was negligent in contracting out and overseeing the training and appointing of aircraft controllers.[156] Explaining that the discretionary function exemption shielded the FAA, the Seventh Circuit stated:

> Here, Congress authorized the FAA to enter into contracts, as necessary, to carry out the functions of the FAA, and thus the

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148 *See, e.g.*, Almond, *supra* note 86, at 15.

149 *Id.*

150 *Id.* at 16.

151 *Id.* at 15.

152 *See* 49 U.S.C. § 44736(a)(1).

153 *Id.*

154 United States v. S.A. Empresa de Viacao Aerea Rio Grandense (*Varig Airlines*), 467 U.S. 797, 819–20 (1984).

155 Alinsky v. United States, 415 F.3d 639, 648 (7th Cir. 2005); Riggs v. Airbus Helicopters, Inc., 939 F.3d 981, 992 n.2 (9th Cir. 2019).

156 *Alinsky*, 415 F.3d at 647.

> government did not violate a specific mandatory statute, regulation or policy in hiring Midwest to provide training and oversight at Meigs. The plaintiffs also fail to identify any mandatory statute or regulation dictating how the FAA must oversee private contractors or assure the contractor complies with federal regulations and the contract provisions. Where the plaintiffs' claim is premised on negligent oversight, such a showing is imperative.[157]

Since the FAA made the discretionary decision to contract out the selection, training, and oversight of air traffic controllers in the case, the FAA was not open to attack for oversight failures.[158]

The *Alinksy* decision is distinguishable from the case of the 737 MAX and may provide a means of attacking the FAA for its failed oversight. *Alinksy* focused on the FAA's decision to delegate to a third party authority to select and train air traffic controllers.[159] But here, the FAA retained certain oversight authority, which it vested in the BASOO.[160]

According to the JATR report, "[t]he BASOO is required to perform a certification function, including making findings of compliance of retained (non-delegated) requirements, while also performing the oversight function of the Boeing ODA. The BASOO must have the resources to carry out these two primary functions without compromise."[161] Therefore, the FAA may not have provided enough adequate, qualified individuals to administer its retained oversight over the 737 MAX certification. Some of the engineers involved in the small oversight team were recent graduates and people unfamiliar with MCAS.[162]

The JATR report found that there were twenty-four engineers on the BASOO team, and that the allocated staffing levels may not have been sufficient to "carry out the work associated with retained items and with the conduct of oversight duties."[163] This critical understaffing could have played a part in some key oversights, including the failure to list the appropriate MCAS correction. Initially, Boeing determined and submitted to the FAA that MCAS limited automated corrections in the airplane's flight up to 0.6 degrees.[164] However, the final system design was submit-

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[157] *Id.*

[158] *Id.* at 648.

[159] *Id.*

[160] JOINT AUTHS. TECH. REV., *supra* note 110, at VII.

[161] *Id.*

[162] *See* Kitroeff et al., *supra* note 130.

[163] JOINT AUTHS. TECH. REV., *supra* note 110, at VII.

[164] Dominic Gates, *Flawed Analysis, Failed Oversight: How Boeing, FAA Certified the Suspect 737 MAX Flight Control System*, SEATTLE TIMES (Mar. 17, 2019), https://

ted and reviewed with a 2.5-degree limitation instead of 0.6.[165] Boeing decided such a change was insignificant, and so it was never reviewed by FAA oversight engineers, who were unaware of the change until after the crashes.[166] Among other factors, this was one of the key causes of the system failure.

Even if Boeing had disclosed this change to the FAA, it is unlikely the change would have been noticed or further examined due to inadequate staffing at the FAA.[167] Moreover, while the FAA has discretion to decide how to conduct oversight over its retained functions, that discretion is still bound by statutory limits.[168] Thus, if the FAA had a legal duty to provide adequate and qualified supervision of certain aspects of the certification, and the team dedicated to doing so did not have the staff to accomplish it, it could be argued the FAA acted outside of its discretion in allocating its employees. At the same time, however, the FAA's decisions of how to allocate limited resources are exactly the sort of circumstance that typically invites judicial deference.[169]

Other circuit court decisions relating to the policy prong of the FTCA's discretionary function exemption indicate that, absent clear, specific statutory mandates, the FAA is likely within its rights to consider a wide variety of policy decisions.[170] For example, the Second Circuit has held that the government's use of a chemical agent was discretionary, as were its contracting decisions in performing field tests with that agent.[171] Similarly, the First and Ninth Circuits have held that, once a private contractor is delegated authority to perform some function, the government is not liable for the contractor's failure to protect its employees from dangers typically within the government's purview.[172] But that discretion is not without limits. A footnote in the *Berkovitz* decision suggests a limitation to the exemption's

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seattletimes.com/business/boeing-aerospace/failed-certification-faa-missed-safety-issues-in-the-737-max-system-implicated-in-the-lion-air-crash/ [perma.cc/4LE2-GNMX].

165 *Id.*

166 *Id.*

167 *Id.*

168 *See* Alinsky v. United States, 415 F.3d 639, 645 (7th Cir. 2005).

169 *See, e.g.*, United States v. S.A. Empresa de Viacao Aerea Rio Grandense (*Varig Airlines*), 467 U.S. 797, 820 (1984).

170 Fishback & Killefer, *supra* note 87, at 298.

171 *Id.* at 308 (citing *In re* Agent Orange Product Liability Litigation, 818 F.2d 210, 215 (2d Cir. 1987)).

172 *Id.*

scope.[173] The Court noted that: "While the initial decision to undertake and maintain lighthouse service was a discretionary judgment . . . failure to maintain the lighthouse in good condition subjected the Government to suit under the FTCA [because] the latter course of conduct did not involve any permissible exercise of policy judgment."[174]

Here, it was within the FAA's discretion to delegate some certification responsibility to Boeing and to retain some for itself.[175] But once it has decided to retain certain oversight duties, it can only exercise policy judgments that are *permissible*.[176] Economic considerations, FAA resources, and public safety are all valid, permissible policy considerations that should not be subject to judicial scrutiny.[177] However, it is questionable whether the FAA's consideration of Boeing's desire to meet deadlines and compete with Airbus is a permissible consideration, and there is evidence that those interests were considered when the FAA was deciding who would conduct the oversight.[178] "A former FAA safety engineer who was directly involved in certifying the MAX [8] said that halfway through the certification process, 'we were asked by management to re-evaluate what would be delegated. Management thought we had retained too much at the FAA.'"[179] In a troubling episode, a senior Boeing engineer, whose job was to act on behalf of the FAA in issuing certifications, pushed back against Boeing management's demands for less stringent testing of a feature by the new engineers.[180] After initially rejecting the engineer's call for stricter safety testing so that he could comply with FAA regulations, Boeing management eventually caved to his requests.[181] But "[l]ess than a month after his peers had backed him, Boeing abruptly removed him from the program even before conducting the testing he'd advocated."[182] This incident highlights a consistent

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[173] *Id.* at 303.

[174] *Id.* (citing Berkovitz v. United States, 486 U.S. 531, 538 n.3 (1988)).

[175] Borfitz, *supra* note 77.

[176] *See Berkovitz*, 486 U.S. at 538 n.3.

[177] *See* Fishback & Killefer, *supra* note 87, at 297.

[178] Gates, *supra* note 164.

[179] *Id.*

[180] Dominic Gates & Mike Baker, *Boeing Pressured FAA-Authorized Engineers on Safety Issues*, HERALDNET (May 6, 2019), https://heraldnet.com/nation-world/boeing-pressured-faa-authorized-engineers-on-safety-testing/ [perma.cc/ET9P-PRFQ].

[181] *Id.*

[182] *Id.*

problem with the Boeing ODA program: "Many engineers, employed by Boeing while officially designated to be the FAA's eyes and ears, faced heavy pressure from Boeing managers to limit safety analysis and testing so the company could meet its schedule and keep down costs."[183] Boeing's costs and schedules are not likely the type of policy considerations envisioned by the *Berkovitz* Court.[184] However, in the absence of strict, expressly delineated statutory processes that the FAA is bound to follow in designating oversight authority, this mode of attack is probably weaker than one based on the qualified private person grounds.[185]

*3. Is the Federal Tort Claims Act the Right Tool?*

Even if it is possible to sue the FAA under the FTCA, a question remains regarding the likelihood that private FTCA suits against the FAA would be effective in ensuring the FAA is not beholden to private companies, like Boeing, and that the FAA performs its duty of ensuring the safety of aircraft without undue private influence.[186] It has been noted that the FTCA makes it hard to sue the FAA for negligence and that it would be more prudent to sue Boeing directly.[187] As one aviation lawyer remarked, "At the start, middle and end, regardless of the role the FAA played, Boeing, Boeing, and Boeing is responsible for the safety of the airplane."[188] Some feel that the role of investigating the nature of the relationship between the FAA and Boeing is a task better left to the legislature.[189] After all, victims who want to be made whole can always sue Boeing, which has agreed to settlements of over $1 million for some crash victims.[190] However, if the FAA is susceptible to "capture," or is already captured, lawsuits against one of the biggest companies in the industry may help, but would not address the root of the problem. Thus, two

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[183] *Id.*

[184] *See* Berkovitz v. United States, 486 U.S. 531, 538 n.3 (1988).

[185] *See id.* at 547.

[186] *See* United States v. S.A. Empresa de Viacao Aerea Rio Grandense (*Varig Airlines*), 467 U.S. 797, 804 (1984) ("In the Federal Aviation Act of 1958, 49 U.S.C. § 1421(a)(1), Congress directed the Secretary of Transportation to promote the *safety* of flight of civil aircraft in air commerce.") (emphasis added).

[187] Christine Negroni, *Why It's Unlikely the FAA Will Be Sued for the 737 MAX*, POINTS GUY (Apr. 1, 2019), https://thepointsguy.com/news/why-its-unlikely-the-faa-will-be-sued-for-the-737-max/ [perma.cc/NU4S-9MXR].

[188] *Id.*

[189] *Id.*

[190] *See Boeing Settles First Lawsuit With 737 Max Crash Families*, *supra* note 109.

questions must be addressed; is the FAA "captured", and if it is, could lawsuits pursuant to the FTCA help?

### B. Agency Capture and the FAA

Regulatory agencies, such as the FAA, face the Herculean task of overseeing a technological domain that seems to constantly increase in complexity. With limited resources and personnel, agency cooperation with industry leaders, who often have vastly superior resources and technical expertise, is an inescapable reality.[191] But occasionally, the interests of the private parties subject to regulation become so intertwined with the agency that they lead to undue control and domination of the agency's regulatory authority. This phenomenon is referred to as agency "capture" and has "been all but universally seen as a negative consequence."[192] Agency capture occurs when a private company, through lobbying or otherwise, usurps the agency's public policy considerations in favor of the private company's own selfish interests.[193] "It has become widely accepted, not only by public interest lawyers, but by academic critics, legislators, judges, and even by some agency members, that the cooperative overrepresentation of regulated or client interests in the process of agency decision results in a persistent policy bias in favor if these interests."[194]

The FAA is an agency that is widely considered "captured" by the airline industry.[195] This conclusion is supported by findings of various investigations into the 737 MAX certification program. A *New York Times* report found that many top agency officials "shuffle[ ] between the government and the industry."[196] Boeing was treated more as a client than as a private party regulated by the FAA.[197] Managers within the FAA's oversight program over the Boeing ODA were reportedly pressured to make sure Boeing met deadlines to deliver the 737 MAX to its customers.[198] Problems encountered by Boeing engineers tasked with

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191 *See* Niles, *supra* note 55, at 393.

192 *Id.* at 390.

193 *Id.*

194 *Id.*

195 *See id.* at 405.

196 Kitroeff et al., *supra* note 130.

197 *Id.*

198 *Id.*

certification were not reported to disinterested FAA officials, but to Boeing executives.[199]

Concerns about the impartiality of the FAA and fears of its capture by the industry are not new or unique to the aviation industry. The rise of the administrative state has naturally led to an increased number of agencies, and thus increased concern over agency capture.[200] For the FAA in particular, a primary source of concern stems from what has been referred to as the FAA's dual mandate—beyond just regulating airline safety, the FAA is also tasked with fostering air commerce.[201] "[Thus f]rom its inception, the FAA was given the difficult task of balancing two interests which might be frequently, if not inherently, in conflict: the protection of airline safety on one hand, and the 'fostering' of successful air commerce, and consequently, the promotion of airline profitability, on the other."[202]

While that language was removed in subsequent amendments to the statute, the influence of the dual mandate remains.[203] While other industries do rely on "audited self-regulation" by private companies, the FAA is particularly susceptible to "hyper-influence" by regulated parties since it "relies almost exclusively on self-regulation."[204] Given that concerns about the influence of the aviation industry on the FAA stretch back over forty years and that the prevalence of companies like Boeing in the FAA certification process has only increased in that time,[205] it seems that the legislature and the agency itself may not be capable of crafting solutions to the problem. A critical examination of some of the proposed changes and findings by the JATR reveals why FTCA suits are a necessary aspect of FAA reform.

In its report on the FAA's delegation of certification authority to Boeing, the JATR panel concluded that "in the [737] MAX program, the FAA had inadequate awareness of MCAS function which, coupled with limited involvement, resulted in the inability of the FAA to provide an independent assessment of the adequacy of the Boeing proposed certification activities associated with MCAS."[206] This statement alone is rather shocking. The fact

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[199] JOINT AUTHS. TECH. REV., *supra* note 110, at 29.
[200] Niles, *supra* note 55, at 386–88.
[201] *Id.* at 407.
[202] *Id.*
[203] *Id.* at 408.
[204] *Id.* at 413.
[205] *Id.* at 409.
[206] JOINT AUTHS. TECH. REV., *supra* note 110, at VII.

that the FAA was willing to certify the 737 MAX even though it could not determine the adequacy of Boeing's certification activites indicates a disturbing level of incompetence or industry influence—or both—within the FAA. To remedy this, the panel issued Recommendation R5, "that the FAA conduct a workforce review of the BASOO engineer staffing level to ensure there is a sufficient number of experienced specialists to adequately perform certification and oversight duties, commensurate with the extent of work being performed by Boeing."[207] However, given the Court's broad understanding of the discretionary function exemption, the FAA could likely meet this duty by simply stating that current staffing levels are adequate—it would be acting within its discretion in making that determination. Even if the statue were amended to require "adequate" staffing, it would still be up to the FAA (and by extension, Boeing) to determine what that means.

The JATR also recommended that "[t]he FAA should review the Boeing ODA work environment and ODA manual to ensure the Boeing ODA engineering unit members are working without any undue pressure when they are making decisions on behalf of the FAA."[208] This would amount to having FAA officials connected with Boeing determine whether Boeing is exerting undue pressure on the engineers, and given the broad scope of the discretionary function exemption, Boeing officials delegated authority would have the discretion to conclude the engineers operate free of undue pressure. Other JATR recommendations involve requiring "holistic, integrated aircraft-level approach[es]" to certification[209]—that ODA engineers consider how adding critical technological systems like MCAS might effect other processes of the aircraft.[210] These recommendations seem so obvious that it is hard to believe they have not been considered by the FAA, fortifying contentions that the agency is subject to industry control, which will only be loosened by bringing FTCA claims against it.

For a captured agency like the FAA, there is very little standing in the way of allowing the industry to apply undue pressure absent judicial intervention. The lobbying groups behind the airline industry are considered some of the most powerful and

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[207] *Id.* at VIII.

[208] *Id.*

[209] *Id.*

[210] *Id.* at VIII–IX.

effective in the United States. The FAA is largely run by people with significant connections to the major airlines, and who seem to side increasingly with the industry on issues.[211] Unfortunately, the only catalyst for any semblance of change in the FAA tends to be the public outcry following devastating accidents that cost hundreds of lives.[212] But these incidents are few and far between and changes are typically not implemented once the outrage subsides. For example, in response to a catastrophic crash of an airplane off the coast of Long Island in the late 1990s, the "FAA implemented several heightened safety measures and organized a White House Commission on Aviation Safety and Security."[213] This commission, among other things, proposed thirty-one recommendations for tightening airport security, especially in the face of terrorism.[214] But those procedures were not seriously implemented by the FAA until after the September 11, 2001 terrorist attack.[215] Most observers agreed that "had those recommendations been implemented within the spirit and intent of the commission, the plans to attack on September 11 might have been detected well before they occurred."[216] Allowing FTCA suits to proceed against the FAA for acts outside the scope of the discretionary function exemption would place the FAA on notice that it should conduct its duties in accordance with one of its primary purposes—to promote safety.

## V. CONCLUSION

In the absence of congressional action amending legislation to implement oversight requirements and limits on delegation, the FAA might not curb its own excesses. A slew of small, but specific amendments could go some way to creating meaningful change.

First, the statute should require that an impartial FAA engineer have a non-delegable duty to conduct a cursory examination of a proposed change and make the initial determination of whether it is considered significant or minor. In the case of the 737 MAX, the JATR concluded that it was Boeing engineers, likely under pressure from Boeing management, who made the determination that a change in MCAS that increased the ability

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[211] Niles, *supra* note 55, at 415.
[212] *Id.* at 409.
[213] *Id.*
[214] *Id.* at 410.
[215] *Id.* at 410–11.
[216] *Id.*

of the system to change the pitch of the aircraft was not significant and did not need further FAA review.[217] Had the FAA oversight engineers seen the change, they could have caught the mistakes that caused the accidents.[218]

Along those lines, the statute should mandate that any automated system that can alter the flight path of an aircraft without input from the pilot is, by definition, a significant change that needs to be reviewed independently by FAA engineers. Given the stakes involved, it makes no sense that a change which can alter the flight of the aircraft without input could be seen as anything other than significant. Finally, amending the statute to require the FAA to retain authority to appoint specific Boeing engineers who will participate in the ODA program, rather than delegating that duty to Boeing, is another solution to part of the problem.

But in the face of Congress' inaction, the judicial system provides hope of holding the FAA accountable when delegating authority to private industry leaders like Boeing.

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[217] JOINT AUTHS. TECH. REV., *supra* note 110, at 13–14.
[218] *Id.* at 14.


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