THE FUTURE OF INTERNATIONAL AIR LAW
IN THE 21ST CENTURY

13th Annual Assad Kotaite Lecture
Before the Royal Aeronautical Society
at
ICAO Headquarters, Montreal, Canada
December 1, 2016
by

Dr. Paul Stephen Dempsey
Tomlinson Professor Emeritus of Law and Global Governance
and
Director Emeritus, McGill University Institute of Air & Space Law
NOTICE OF 13th ANNUAL
ASSAD KOTAITE LECTURE

THE FUTURE OF AIR LAW IN THE 21ST CENTURY

will be presented at International Civil Aviation Organization (ICAO) Headquarters, 999 Robert-Bourassa Boulevard, Montréal, Québec H3C 5H7 on Thursday, December 1st 2016 at 18h00 in Conference Room 3, Ground Floor (Doors open at 17h30) by

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From 1975-79, he served with the Civil Aeronautics Board (CAB) and the Interstate Commerce Commission (ICC) in Washington, D.C., and during 1981, he was Legal Advisor to the Chairman of the ICC.

From 1979-2002, he held the endowed chair as Professor of Transportation Law and Director of the Transportation Law Program at the University of Denver. He was also Director of the National Center for Intermodal Transportation. During this time, he was faculty editor of the Transportation Law Journal and served on the Editorial Boards of the Denver Business Journal, and The Aviation Quarterly (Lloyds, London).

Professor Dempsey has appeared on numerous television and radio programmes, both in the United States and internationally and his editorials have been published in Newsweek, the New York Times, and the Wall Street Journal.

Professor Dempsey has written more than 100 law review and professional journal articles, scores of newspaper and news magazine editorials, and over two dozen books. He served on the Editorial Boards of the German Journal of Air & Space Law and the Annals of Air & Space Law.

Dr Dempsey was Vice Chairman and Director of Frontier Airlines, Inc., and Chairman of Lynx Aviation, Inc. He has served as a founder and first Chairman of the Board of Governors of the Certified Claims Professional Accreditation Council, Inc., and President and Director of the Genesee Foundation, Inc. He has also served as a consultant to U.S. and foreign airlines, railroads, motor carriers, transportation labor organizations, government agencies, and telecommunications companies.

Dr Dempsey holds the following degrees: A.B.J., J.D., University of Georgia; LL.M., George Washington University; D.C.L., McGill University. He is admitted to practice law in Colorado, Georgia and the District of Columbia. Professor Dempsey was a Fulbright Scholar, was awarded the Transportation Lawyers Association Distinguished Service Award and was designated the University of Denver's Outstanding Scholar. He was the first individual designated the University of Denver's Hughes Research Professor and DePaul University's Distinguished Visiting Professor of Law. He is an inductee of the Colorado Aerospace Hall of Fame.

There is no charge for the Lecture but attendees are requested to pre-register by November 28, 2016 online at http://www.raes-montreal.org, either on the Home webpage or on the Lecture webpage.

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## I. INTRODUCTION

International Air Law (or if you prefer, Aviation Law) is divided into two broad categories, Public and Private. In this essay, we review several of the major issues Public International Air Law likely will
confront during this century.¹

II. THE CHICAGO CONVENTION

The Chicago Convention of 1944 is the “Magna Carta” of Air Law.² The Chicago Convention is both an organic constitution of an international organization and the source of major principles of Air Law. Established by the Chicago Convention, the International Civil Aviation Organization (ICAO) was given responsibility for regulating the many technical aspects of the commercial air transportation. Beyond safety and navigation, ICAO also has taken the lead on environmental and security issues, jurisdictional areas not originally contemplated when the Chicago Convention was drafted. It has promulgated Standards and Recommended Practices (SARPs) which its 191 Member States are obliged to implement uniformly, unless they find it impracticable to comply.³ Moreover, the Chicago Convention provides that: “over the high seas, the rules in force shall be those established under this Convention”.⁴ Hence, ICAO has law-making authority over 72% of the Earth's surface. This jurisdictional scope, which is unparalleled by any other international organization, in effect, makes ICAO a paradigm of global governance.⁵ Today, ICAO is one of the largest, and most successful, specialized agencies in the United Nations family.⁶

¹ See Paul Stephen Dempsey, Public International Air Law, 1st ed, (Montreal: Centre for Research in Air and Space Law, 2008). The sources of Public International Air Law are:
- Multilateral conventions
- ICAO Standards and Recommended Practices
- Bilateral Agreements (e.g., Traffic Rights, Safety, Security)
- Customary international law
- Intergovernmental decisions and regulations (e.g., those of the European Union)
- National legislation and regulation
- Administrative practice and procedure
- Contracts (e.g., air carrier alliance agreements, airport agreements)
- Judicial opinions; jurisprudence of courts interpreting all the above in cases and controversies brought before them

² Convention on International Civil Aviation, 7 December 1944, 15 UNTS 295, ICAO Doc 7300/6 (entered into force 4 April 1947) [Chicago Convention].
³ Ibid, art 38.
⁴ Ibid, art 12.
ICAO began operation in 1947. It has since promulgated 19 Annexes containing SARPs elucidating the general principles set forth in the Chicago Convention. By convening diplomatic conferences, ICAO also has been a major source of multilateral conventions addressing aviation. The success of ICAO is reflected in the nearly universal ratification of both the Chicago Convention, and many of the multilateral conventions it has generated.

III. THE AVIATION SECURITY CONVENTIONS

Annex 17 reflects considerable work on the security front, particularly since September 11, 2001. Additionally, an impressive array of international aviation security agreements have been created under ICAO auspices. State ratifications have been widespread:

- Tokyo Convention of 1963 – 186 States;
- The Hague Convention 1970 for the unlawful seizure of aircraft – 185 States;
- The Montreal Convention 1971 for the suppression of unlawful acts against the safety of aviation – 188 States;

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7 ICAO has convened diplomatic conferences resulting in a long list of treaties, including:
- Rome Convention of 1952 (addressing aircraft operator liability for surface damage)
- Tokyo Convention of 1963 (addressing offenses on board aircraft)
- Hague Convention of 1970 (addressing aircraft hijacking)
- Montreal Convention of 1971 (addressing aircraft and air navigation security)
- Montreal Protocols of 1975 (amending the Warsaw Convention on airline liability to passengers and shippers)
- Montreal Convention of 1999 (addressing carrier liability for death injury or delay to passengers, and loss damage and delay to baggage and cargo)
- Montreal Conventions of 2009 (addressing aircraft operator liability for surface damage)
- Beijing Convention and Protocol of 2010 (addressing aviation security)
- Montreal Protocols of 2014 (amending the Tokyo Convention)

These and other Public and Private International Air Law agreements are compiled in XXX(1) (2005) Ann Air & Sp L.


9 Convention on Offenses and Certain Other Acts Committed on Board Aircraft, 14 September 1963, 20 UST 2941, TIAS No 6768, 704 UNTS 219 (entered into force 4 December 1969) [Tokyo Convention].


- The Montreal Protocol of 1988 for the suppression of acts of violence at airports – 173 States;\textsuperscript{12}
- The MEX Convention of 1991 on the marking of explosives – 150 States.\textsuperscript{13}

In addition, ICAO convened diplomatic conferences in Beijing in 2010 and Montreal in 2014 that drafted additional aviation conventions and protocols, which have yet to enter into force.\textsuperscript{14} ICAO also has had impressive success in drafting a number of Private International Air Law Conventions addressing airline and air carrier liability.\textsuperscript{15} ICAO has been


\textsuperscript{15} Air carrier liability for international delay, passenger injury or death, and cargo loss and damage is governed by several multilateral Conventions and amending Protocols, the first being the Warsaw Convention of 1929, and the most recent being the Montreal Convention of 1999 (M99). Professor Michael Milde has described Warsaw as "justly hailed as the most successful unification of private law ...." in Michael Milde, ""Warsaw” System and Limits of Liability–Yet Another Crossroad?” (1995) 18:1 Ann Air & Space L 201 at 204-07. Dr. Milde points out the major areas in which the Warsaw Convention has achieved uniformity: (1) the definition of international carriage; (2) the documents of carriage; (3) the regime of liability; and (4) jurisdiction. M99’s most significant features are:

- It incorporates most of the liability provisions of the IATA Intercarrier Agreements; M99 establishes a two-tier liability system, with strict liability up to 100,000 SDRs, and presumptive liability in an unlimited amount;
- The claimant’s recovery may be discounted if the carrier proves he caused or contributed to his damages;
- Above 100,000 SDRs, the carrier may limit its liability if it proves it was not negligent, or that the damage was caused solely by a third party;
- The claimant may recover court costs and attorney’s fees if the amount of damages awarded exceeds any written settlement offer made within six months of the accident but before suit is commenced;
- “Punitive, exemplary or other non-compensatory damages” are not recoverable;
- There is no explicit provision allowing recovery of emotional damages; passenger recovery is limited to death or bodily injury
- The ceilings for air cargo liability are unbreakable;
- ICAO shall periodically adjust the recovery amounts for inflation;
- For personal injury or death, the Convention establishes a “fifth jurisdiction” of the passenger’s residence, so long as the carrier (or its code-sharing partner) does business there; and
a major catalyst for the unification of law globally. One source observed, “very positive results … have been obtained in the technical committees and commissions of ICAO, especially in the field of air law”.16

IV. SHOULD THE CHICAGO CONVENTION BE OVERHAULED?

Seven decades after its promulgation, some have argued that a complete overhaul of the Chicago Convention is overdue. This author is of a different view, a view that sees the Convention as a valuable source of general principles of Air Law, as well as an organic document of a successful international organization, with sufficient flexibility to meet many of the serious challenges of the 21st century. Though amendments are suggested below, this author takes the view that the essential provisions of the treaty are solid, a comprehensive overhaul is unnecessary.

Nonetheless, although ICAO’s accomplishments are impressive, there remains room for improvement and updating to reflect the major changes in aviation technology and the evolution of the airline industry in the ensuing seven decades since the Chicago Convention was drafted. Further, the landscape of States was quite different in 1944, when the world was at war, with major colonial empires sprinkled across the globe. The workhouse of commercial aviation was the DC-3; commercial jets did not appear until the 1950s; wide-bodied aircraft were not flown commercially until 1970. In 1944, many of the 191 States now parties to the Chicago Convention did not then exist. In fact, only 52 States met in Chicago to draft that Convention in 1944, about a quarter of the current

• There is no carrier penalty for noncompliance with the new documentation requirements.

As for the liability conventions promulgated under ICAO auspices, ratification rates also are impressive:

• The Hague Protocol – 137 States
• The Guadalajara Convention – 86 States
• Montreal Protocol No. 4 – 58 States
• The Montreal Convention of 1999 – 107 States

Ratification rates for surface damage conventions have been less successful. The Rome Convention of 1952 received relatively few ratifications, and neither of the two Montreal Conventions of 2009, addressing air operator liability for surface damage, have received a sufficient number of ratifications to enter into force. Paul Stephen Dempsey, Aviation Liability Law 2nd ed (Markham, Ont: LexisNexis, 2013) at 238-47.

membership of ICAO. So the world has changed in the seven decades since promulgation of the Chicago Convention.

Is that document relevant and adequate for our times? Let us examine several policy questions that will require the attention of international aviation law.

A. UNMANNED AIRCRAFT

ICAO defines safety as “the state in which the possibility of harm to persons or of property damage is reduced to, and maintained at or below an acceptable level through a continuing process of hazard identification and safety risk management”. The Chicago Convention prohibits the operation of pilotless aircraft in the territory of a contracting State without special authorization. It also requires that they be flown in a way as to not create a safety hazard for civil aircraft.

Unmanned aerial systems (or UAS, sometimes known as Remotely Piloted Aerial Systems, or drones) likely will enjoy robust growth throughout the 21st Century. The potential commercial and governmental uses of drones are numerous and growing.

Issues of navigation and safety remain to be resolved. Yet, satellite-based GPS technology, as well as on-board collision avoidance (“detect sense-and-avoid”) systems, along with establishment of prohibited locational zones above a certain altitude and near airports, for example, should enable their safe and efficient use. Moreover, the full implementation of the Global Navigation Satellite System (GNSS) should allow more safe and efficient flights for all (even large) commercial aircraft, which will reduce unit operational costs, fuel consumption and

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17 27% to be precise.
19 Chicago Convention, supra note 2, artArt 8.
20 ICAO has deemed unmanned aerial vehicles (UAV) an “obsolete” term and has replaced it with UAS and RPAS. See ICAO, Unmanned Aircraft Systems (UAS), ICAO Circ 328, AN/190 (2011) [UAS Circular], online: ICAO <www.icao.int/Meetings/UAS/Documents/Circular%20328_en.pdf>.
emissions.

SARPs and national legislation are both required to ensure safety. In 2011, ICAO published a Circular on Unmanned Aircraft Systems, and a Manual on Remotely Piloted Aircraft Systems. In the United States, the Federal Aviation Administration issues two types of certificates:

1. Special Airworthiness Certificates - Experimental Category (SAC-EC) for civil aircraft, and
2. Certificates of Waiver or Authorization (COA) for public aircraft.

Beyond the regulation of safety, other concerns need to be addressed by law, including potential hacking or jamming of signals, the use of drones for purposes of terrorism or other criminal activities, and concerns over individual privacy.

B. AEROSPACE VEHICLES

The international Air Law legal regime governing air transport on issues such as safety, security, navigation and air traffic management is well developed, and set forth in the Chicago Convention and the Annexes thereto. The Chicago Convention proclaims that it applies to civil aircraft, yet nowhere in the Convention is the term “aircraft” defined. Therefore, it is unclear whether aerospace vehicles fall under

22 UAS Circular, supra note 2022.
27 Chicago Convention, supra note 2, art 3.
established principles of Air Law, and if they do, whether these laws follow them through air space and into outer space. Indeed, it unclear where the regime of Air Law ends and the regime of Space Law begins. Both the existing Air Law and Space Law regimes were developed at a time when the technology was embryonic, and commercial activity in space was nil. Thus, there is not yet a unified or integrated regime of Aerospace Law, and there appears to be much overlap and inconsistency between the regimes of Air Law and Space Law.

In instances where both regimes apply, there will be a certain amount of inevitable inconsistency. As commercial aerospace launches become more numerous, their use of airspace also inhabited by aircraft will proliferate, creating a need for defined rules of safety, security, navigation, and traffic control. The absence of effective “rules of the road” may result in collision, and a proliferation of space debris – the largest environmental threat to the development of space.

The day may come when the world community realizes that an international body is needed to address common issues in the commercial development of space. Global harmonization of Space Law could come through creation of a new international organization, or by amending the Chicago Convention to include space within ICAO’s jurisdiction, or simply by re-defining the term “aircraft” in the Annexes to the Chicago Convention.28 Aircraft is defined in the Annexes as “any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the Earth’s surface” 29

ICAO could amend the Annexes to redefine aircraft to include aerospace vehicles, so that when they fly in airspace used by civil aircraft, the rules of safety and navigation are identical. ICAO created the definition of aircraft with a view to clarifying that hovercraft were not contemplated by the Chicago Convention; ICAO could amend its Annexes again to clarify that suborbital vehicles fall within the definition of “aircraft”.

One potential definition that might be used as a model was that promulgated by the US Congress in the Air Commerce Act of 1926: “any

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28 ICAO’s membership of more than 190 nations comprises virtually the entire world community. ICAO has more than a half century of experience in addressing safety international commercial aviation.

29 See e.g. ICAO, Annex 7 to the Convention on International Civil Aviation, Aircraft Nationality and Registration, 6th ed (July 2012).
contrivance now known or hereafter invented, used or designed for navigation or flight in the air”.\textsuperscript{30} The Canadian Parliament has defined an aircraft as “any machine capable of deriving support in the atmosphere from reactions of the air, and includes a rocket”.\textsuperscript{31} German law also includes a rocket within the regulatory umbrella of aircraft.\textsuperscript{32} Another source recommends that suborbital vehicles be included in the Air Law regime, and orbital vehicles be placed within the Space Law regime.\textsuperscript{33} Alternatively, ICAO could promulgate a new Annex 20 on “Space Standards”.\textsuperscript{34}

The Chicago Convention lists eleven jurisdictional areas to which ICAO is instructed to devote itself, mostly focusing on safety and navigation.\textsuperscript{35} Yet, since its creation, as air transport has grown and evolved, ICAO has focused on other areas not explicitly listed therein, including, for example, the promulgation of wholly new annexes addressing environmental and security issues. Some authors assert that the involvement of ICAO in addressing aircraft emissions lacks “any sound textual basis in the Convention …”.\textsuperscript{36} This author, however, takes the view that the Convention is sufficiently broad to permit such jurisdictional assertions, as it provides that in addition to those matters specifically enumerated, ICAO may promulgate SARPs addressing “such other matters concerned with the safety, regularity, and efficiency of air navigation as may from time to time appear appropriate”.\textsuperscript{37} To avoid collisions between aerospace vehicles and aircraft, some international regulatory body is needed to provide uniform standards for national certification of space launch systems and vehicles, and their navigation through airspace.\textsuperscript{38}

ICAO might also define the limits of airspace by amending an
existing, or promulgating a new annex, though some may argue that such a change would require an amendment to the Chicago Convention itself, or perhaps an entirely new multilateral convention. This is by no means a new proposal. As early as 1956, Professor John Cobb Cooper urged that the definition of airspace should be determined by the United Nations and that pertinent regulations should be promulgated by ICAO.\(^39\) Australia applies its domestic aviation laws up to 100 kilometers of mean sea level, which is also the von Kármán line.\(^40\)

C. COMPETITION, CABOTAGE AND FOREIGN OWNERSHIP RESTRICTIONS

The Chicago Convention recognizes the customary international air law principle that every State has complete and exclusive sovereignty in the airspace above its territory.\(^41\) It prohibits scheduled operations except with the permission or authorization of the State in whose territory an aircraft wishes to fly, and only in accordance with the terms established by that State.\(^42\) This has led to a proliferation of bilateral air transport agreements, whereby States negotiate traffic rights on behalf of their flag carriers.

The Chicago Convention gives to each State the right to reserve cabotage (domestic transport) to itself. Article 7 addressed the issue in two sentences. The first provides:

> Each contracting State shall have the right to refuse permission to the aircraft of other contracting States to take on in its territory passengers, mail and cargo carried for remuneration or hire and destined for another point within its territory.\(^43\)

Thus, each State has exclusive sovereignty over its airspace, and may

\(^{39}\) John Cobb Cooper, supra note 25.

\(^{40}\) Australia, Space Activities Act 1998, No 123 (amended 2013), Part 2, sect 8. This boundary between airspace and outer space also has been adopted by accepted by the Fédération Aéronautique Internationale (FAI) in Francis Lyall & Paul B Larsen, eds, Space Law: A Treatise (Surrey: Ashgate Publishing, 2012) at 169.

\(^{41}\) Chicago Convention, supra note 2, art 1.

\(^{42}\) Ibid, art 6.

\(^{43}\) Ibid, art 7.
reserve its domestic traffic to its domestic carriers. Cabotage restrictions also exist in Maritime Law.\textsuperscript{44}

The second sentence of Article 7 is more controversial. It provides:

Each contracting State undertakes not to enter into any arrangements which specifically grant any such privilege on an exclusive basis to any other State or an airline of any other State, and not to obtain any such exclusive privilege from any other State.\textsuperscript{45}

The literal language suggests that if a State gives away cabotage rights to another State’s airline(s), it must give them to all States’ airlines on a non-discriminatory basis.\textsuperscript{46} Were that the case, the European Union would be massively in violation of the Chicago Convention, for although British Airways, Lufthansa and Air France may operate commercial airline services between Rome and Milan, American Airlines may not. Intra-European flights are reserved exclusively to carriers that enjoy majority ownership by citizens of the EU, irrespective of in which of the 28 EU member State those citizens reside. The wording of the second sentence of Article 7 probably does not comport with the contemporary needs of commercial aviation, and should be revoked by amendment of the Chicago Convention.

Some sources contend that nationality rule has been part of law of international aviation “since the signing in 1944 of the [Chicago Convention] and its subsidiary accords, the Two Freedoms and Five Freedoms agreements”.\textsuperscript{47} This is inaccurate. Nationality restrictions have their origin in the predecessor to the Chicago Convention— the Paris Convention of 1919.\textsuperscript{48}

\textsuperscript{44} See e.g. US, Passenger Vessel Services Act, 24 Stat 81, 46 USC § 55103; Merchant Marine Act, Pub Law 66-261, 46 USC § 50101.
\textsuperscript{45} Chicago Convention, supra note 2, art 7.
\textsuperscript{47} Havel & Sanchez, supra note 3638 at 125.
\textsuperscript{48} Convention Relating to the Regulation of Aerial Navigation, 13 October 1919, 11 LNTS173, 1922 UKTS2, art 7 required that aircraft registered in a State must belong “wholly to nationals of such State”. It further provided that, No incorporated company can be registered as the owner of aircraft unless it possesses the nationality of the State in which the aircraft is registered, unless the president or chairman of the company and at least two-thirds of the directors possess such nationality...
Some misread the Chicago Convention to address ownership and control of airlines. It does not. It addresses nationality and registration of aircraft. The Chicago Convention provides that, “Aircraft shall have the nationality of the State in which they are registered.” Aircraft may not be registered in more than one State, though registration may be changed from one State to another. Registration, and transfers thereof, as well as the nationality of aircraft owners are determined by the domestic laws of the registering State.

Basically, the issue of foreign ownership also is largely moot within the European Union (Air France controls KLM, BA controls Iberia, and Lufthansa controls Austrian and Swiss, etc.). So long as an airline holding an operating certificate from an EU member State is majority-owned by European nationals, the airline is considered a “community carrier”. With the Third Package of Liberalization implemented in 1993, any EU carrier can operate anywhere within and between any of its member States. Foreign ownership restrictions are becoming blurred in Southeast Asia as well, with Air Asia pretending to be several different companies, and in the Pacific Rim, with the airlines of Australia and New Zealand operating within each other’s markets. In the United States, domestic law limits foreign ownership to 25% voting equity and requires control by US citizens.

The issue of whether aircraft or airline ownership was tied to nationality was left to national law. But cabotage rights normally were conferred only to airlines owned by nationals of the State, and often

In 1919, most airlines owned the aircraft they flew; leasing did not become widespread until well after WWII. Hence, the Paris Convention effectively required airlines to be owned and controlled by the States which issued them an operating license.

49 However, largely unused Chapter XVI of the Convention, and specifically Articles 77 and 79 as an example of the Convention allowing for foreign ownership by multiple States or companies from those States as “joint operating organizations”.

50 Chicago Convention, supra note 2, art 17.

51 Ibid, art 18.

52 Ibid, art 19.

53 On 23 June 2016, the majority of voters in the United Kingdom voted for the country to leave the European Union in the “Brexit” referendum. Should the UK exit the EU, there may be serious consequences on the ownership and control rules in relation to UK-based carriers, particularly British Airways, which controls Spain-based Iberia. See “The EU air law consequences of Brexit for the UK”, online: Clyde & Co <www.clydeco.com/uploads/Files/Admin/CC010787_The_EU_air_law_consequences_of_Brexit_2_27-06-16.pdf >.


55 The EU grew to 28 member States with the admission of Croatia in July 2013.
nationality was a domestic law prerequisite of air carrier certification. So, the practice of most States has long been to restrict aircraft registration and the issuance of airline operating certificates to its citizens. That tradition began to be assaulted with the European Union’s promulgation of rules prohibiting Member States from imposing nationality requirements on EU community air carriers.56

Airline nationality is nowhere addressed in the Chicago Convention.57 The “substantial ownership and effective control” requirement (i.e., the requirement that an airline designated by a State to fly routes negotiated in an air services agreement is owned and controlled by the designating State or its national citizens)58 was included in both the multilateral Air Transit and Transport Agreements adopted at Chicago, and in most of the bilateral air transport agreements concluded since.59 The existence of “substantial ownership and effective control” requirements have effectively precluded adoption of the Maritime Law notion of “flags of convenience” – and the myriad of safety problems it has produced60 – into international aviation. But importantly, although each State has the right to exercise this prohibition, it may also waive the right to exercise this discretion. Increasingly, the requirement is waived.

56 Under its governing treaties and regulations, an EU citizen enjoys the “right of establishment” anywhere within the EU.
58 Havel & Sanchez, supra note 36 at 69.
59 The “substantial ownership and control” requirements are found in bilateral air transport agreements, as well as the multilateral transit and transport agreements, and the MALIAT (Kona) Accord. Almost all bilateral air transport agreements, as well as the multilateral Transit and Transport Agreements, require that carriers designated thereunder “be substantially owned and effectively controlled” by citizens of the State that issues them an operating certificate. For example, Section 5 of the Air Transit Agreement, and Section 6 of the Air Transport Agreement, both provide, inter alia:
Each contracting State reserves the right to withhold or revoke a certificate or permit to an air transport enterprise of another State in any case where it is not satisfied that substantial ownership and effective control are vested in nationals of a contracting State ... .
Hence, there is no concept of “flags of convenience” in aviation as there is in maritime law.
60 Flags of convenience have created enormous problems in the maritime trade. See e.g., Paul Dempsey, “Compliance and Enforcement in International Law - Oil Pollution of the Marine Environment by Ocean Vessels” (1984) 6 NW J Intl L & Bus 459; and Paul Dempsey & Lisa Helling, “Oil Pollution by Ocean Vessels - An Environmental Tragedy: The Legal Regime of Flags of Convenience, Multilateral Conventions and Coastal States” (1980) 10 Den J Intl L & Poly 37
The US routinely waives the foreign ownership requirement if a liberal bilateral is in place between all parties. For example, the US looked the other way when Iberia obtained control of Aerolinas Argentinas, after Argentina signed an “open skies” bilateral with the US. It did not look the other way when Richard Branson’s Virgin Nigeria sought to serve the US, for at the time, Heathrow was still limited to two US-flag airlines. The US has waived the nationality requirements for airlines registered in States that meet FAA Category I safety and security requirements, and that conclude an “open skies” bilateral agreement with the United States.\(^6\) Hence, the presence of an ownership and control restriction can be an effective lever to pry loose concessions that would be unattainable absent formal renunciation of the bilateral.

Several reasons have been advanced in favor of preservation of the nationality requirements and cabotage restrictions:

- to protect national security;
- to ensure the exchange of traffic and other rights would go to airlines only of the State with which they were negotiated (a requirement often seen in trade agreements);\(^6\)
- to protect national airlines from market dilution and excessive competition;
- to protect labor wages and working conditions; and
- to avoid the problem that exists in the maritime trade of "flag of convenience" vessels with lax safety, labor, and environmental restrictions.\(^6\)


\(^6\) “Coupled with defense and security considerations was a strategic trade component to the nationality rule: its applicability ensures that the concessions exchanged between two States cannot be captured by a third State not a party to the deal. This intended result is not dissimilar to the ‘rule of origin’ requirements in free trade agreements.” Havel & Sanchez, supra note 36 at 89.

Some States also recognize the “public utility” attributes of commercial aviation – that frequent and economical air service creates wealth in many sectors of the overall economy beyond air transport, and that its preservation is essential to economic growth. Thus, the economic well being of their airline(s) may need some protection from the ravages of destructive competition.

Generally speaking, there are four major reasons a State may which to opt for “open skies” air transport agreements: (1) it wants to advance the economic interests of its sixth-freedom carrier (e.g., Netherlands, Singapore, Qatar or UAE); (2) it wants to advance the economic interests of its aircraft manufacturer (e.g., France, Canada, Brazil); (3) it wants to advance the economic interests of its tourism industry (e.g., Dominican Republic); or, (4) it cares not about the economic interests of its carrier(s) but is ideologically wedded to neo-classical economic theory which places consumer welfare first (e.g., the US or EU). The United States has concluded some 120 “open skies” agreements.

US airlines have asked their government to re-negotiate air transport with certain Middle East countries who allegedly give their airlines billions of dollars in subsidies, creating what US airlines complain is an “un-level playing field”. The World Trade Organization [WTO] may adjudicate claims by States of unfair competition via State Aid in aircraft manufacturing, but the airlines are exempt from WTO jurisdiction. In 2015, 260 Congressmen signed a letter urging the US government to “seek consultations with the governments of Qatar and the [UAE] in an effort to stem the tide of subsidized capacity that their state-owned airlines are deploying on international routes to the United States . . . . [O]ver the past decade, the governments of Qatar and the UAE have granted over $40 billion in concealed subsidies [which] have


64 “We look forward to briefing President-elect Donald Trump and his new administration on the massive, unfair subsidies that the UAE and Qatar give to their state-owned Gulf carriers,” said Jill Zuckman, spokeswoman for the Partnership for Open and Fair Skies. “The Gulf carrier subsidies threaten the jobs of 300,000 U.S. aviation workers and the American aviation industry as a whole, and we are optimistic that the Trump administration will stand up to the UAE and Qatar, enforce our trade agreements and fight for American jobs.” https://www.washingtonpost.com/local/trafficandcommuting/us-airlines-plan-appeal-to-trump-for-protection-against-foreign-competition/2016/11/09/2c125902-a6b4-11e6-86c0-7be8f48c492_story.html?utm_term=.949ccea064ad (visited 5 Dec. 2016).
taken a wide variety of forms, such as direct cash injections, interest free loans with no payment obligations, shareholder advances, significant related party transactions not at arm’s-length, and subsidized infrastructure, as well as other unfair business practices, such as bans on unions.  

Moreover, during his campaign for the US Presidency, Donald Trump scorned what he described as poorly negotiated one-sided trade agreements. Thus, the momentum for more and more “open skies” agreements may have slowed. So too, the Brexit vote may slow the aggressive free trade posture of the European Union.

Nonetheless, ownership and control requirements have been criticized by advocates of liberalization of governmental restrictions, who argue that the “open skies” bilateral approach of opening markets does not go far enough. It continues to restrict the creation of global megacarriers. It prohibits cross-border mergers, acquisitions and consolidations.

Actually, three virtual megacarriers exist – the Star Alliance, SkyTeam and oneworld. In negotiating the multilateral “Open Skies Plus” agreement in 2007, the EU had urged the US to liberalize its foreign ownership restrictions to allow up to 49% foreign ownership. Though the US Department of Transportation was willing to proceed with a rulemaking to so interpret the statute, the US Congress put a screeching halt to the rulemaking. Instead, what US and EU regulators have done is to insist on the creation of “metal-neutral joint ventures” as the quid-pro-quo for antitrust immunity of airline alliances. Meanwhile, carriers like Etihad Airlines are purchasing significant minority stakes in a number of European carriers. Hence, ownership and nationality is becoming increasingly blurred.

Whether the 21st Century will see the emergence of integrated multinational airlines operating hubs globally is unclear. Legacy

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65 For example, the United Arab Emirates heavily subsidizes its airlines to diversify its economy: “We want the UAE to sustain its drive toward economic diversification, as this is the nation’s surest path to sustainable development in a future that is less reliant on oil. This means expanding new strategic sectors to channel our energies into industries and services where we can build a long-term competitive advantage.” UNITED ARAB EMIRATES, UAE VISION 2021, sec. 3.2 (undated), at http://www.vision2021.ae/en.

66 Professor Brian Havel, for example, calls for elimination of what he describes as “the central legal pillars of the prevailing Chicago system of protective bilaterals – the principles of cabotage... and the nationality principle .... Until these pillars crumble, in the US and among its aviation trading partners, no authentic globalization of the international aviation system will be possible.” In Havel, In search of open skies, supra note 63 at 5-6. See also, Havel & Sanchez, supra note 36 at 123.

67 Ibid at 89.
European airlines (e.g., Air France, Lufthansa, British Airways) are being squeezed in intra-European markets by the low-cost short-haul carriers (e.g., Ryanair and easyJet) at one end, and the long-haul Middle East carriers (e.g., Emirates, Etihad and Qatar) at the other. It is unclear what European governments will do if their airlines begin to fail; it is unclear what the EU will do if the States try to inject them with state aid. Similarly, the US legacy airlines (e.g., United, American, Delta) are being squeezed by the low-cost domestic airlines (e.g., Southwest) so badly that all have made a trip to bankruptcy court, some more than once. Mergers and alliances shielded with antitrust immunity have reduced competition, and lower fuel prices have reduced costs, so that their plight may not be as grim as it appeared only a few years ago. If foreign ownership restrictions are liberalized, we may see the emergence of megacarriers along the lines of the three global alliances.

D. SAFETY AND ENVIRONMENTAL ISSUES: STATE SOVEREIGNTY VS. GLOBAL GOVERNANCE

As noted, Article 1 of the Chicago Convention essentially repeats Article 1 of its predecessor, the Paris Convention of 1919: every State enjoys “complete and exclusive sovereignty” in the airspace above its territory. The remaining provisions of those Conventions then limited that “complete and exclusive sovereignty” in a variety of ways, identifying what States must, and must not, do. The Annexes limit that sovereignty still further. States have been willing to relinquish sovereignty in order to facilitate their common interest of ensuring safety and security in commercial aviation.

In the 20th and 21st centuries, State sovereignty has been eroded in a multitude of ways. For example, it was once possible for a monarch to slaughter his people with impunity. Now, he can be dragged before an international criminal court for prosecution. While a criminal court with adequate jurisdiction may prosecute one who violates human rights, most international organizations lack any power of prosecution.

69 See Assad Kotaite, My Memoirs: 50 Years of International Diplomacy and Conciliation in Aviation (Montreal, Canada: ICAO, 2014) at 210-11.
Some authors lament the fact that ICAO “possesses no direct powers ... to punish or demand compliance from recalcitrant States ....” 72 This reflects a confusion of domestic and international law. Under domestic law, the sovereign has enforcement power by corps of police, jails, courts and prisons to coerce and punish those who violate his edicts; usually, the sovereign has the monopoly on the use of force. Yet, in international law, there are no equivalent institutions. Outside the powers held by the UN Security Council to bring sanctions against States that violate international law, no UN body has unrestricted power to punish an errant State. Global governance instead works in a system of compliance, and softer levels of enforcement. 73

True, the ICAO Council has authority to resolve a complaint between States on interpretations of the Chicago Convention. 74 Violations of its decision may result in a State’s airlines denied authority to cross through the airspace of contracting States, 75 and may result in suspension of the State’s voting power in the Council and Assembly. 76 But these sanctions have never been imposed because although several complaints have been filed, the Council has never reached a decision on the merits. 77

One of the most ingenious, and effective examples of global governance, is the audit program created by ICAO to ascertain State compliance with SARPs. In 1999, ICAO established a Universal Safety Oversight Audit Programme (USOAP) in order to assess State compliance with SARPs. In 2004, the ICAO Assembly passed a resolution requiring the Secretary General to make the results of the audit available to all Member States, and to post them on the secure portions of the ICAO website. 78 In 2005, the ICAO Council approved a procedure for disclosing information about a State having significant SARPs deficiencies in its aviation safety obligations. 79 A more significant action was taken in 2006, when aviation directors general from 153 of 190

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72 Havel & Sanchez, supra note 36 at 61.
74 Chicago Convention, supra note 2, art 84.
75 Ibid, art 87.
76 Chicago Convention, supra note 2, Art88.
78 ICAO Assembly Res 16.2/1 (superseding Assembly Res 33-8).
Member States agreed that by 23 March 2008, the names of those States that fail to agree to full transparency of their USOAP audits would be posted on the ICAO website. By 2006, more than 100 States agreed to transparency.  

It is unprecedented for an international organization to be given the authority to assess State compliance with international obligations, and to “name and shame” States that are delinquent. Also, in the area of aviation security, ICAO SARPs are to be applied to domestic, as well as international, airports. It is unprecedented for an international organization to apply its standards domestically.

The lawmaking competence of ICAO was also recognized by the United Nations when it delegated to ICAO the responsibility to promulgate a convention addressing the issue of marking plastic explosives, and was recognized by the international community in the Kyoto Protocol requiring States working through ICAO to address the environmental impact of emissions by aircraft.

Clearly, ICAO has had struggled with overcoming State sovereignty on the issue of aircraft emissions. The EU’s rather reckless effort to unilaterally impose an Emissions Trading System (ETS) on all airlines serving EU airports in a way that impinged on the territorial sovereignty of their flag States was met with vigorous opposition, forcing the EU to retreat in 2012. Suggesting that ICAO has been subject to “regulatory capture of their agenda by the industries they represent ...”, some authors observe:

ICAO has been unable to produce a “workable road map for the industry’s approach to climate change. Nor has the organization itself been able to engineer a global sectoral approach to cutting aviation emissions despite being charged to do so by both the U.N.

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84 Havel & Sanchez, supra note 34 at 226. Actually, ICAO represents the interests of Member States, and those are often divergent from the interests of the airline industry.
multilateral treaty on global climate change and by its own membership.85

Ultimately, ICAO can do nothing that its member States do not want. If the heads of State are unable to agree as to how to arrest global warming, air transport ministers or foreign service diplomats on the Council or in the Assembly of ICAO can do no better.

Yet a global solution must be found to the problem of aviation emissions. Aircraft contribute only between 2%-3% of carbon pollution globally, but commercial aviation is growing at a faster pace than the ability of technology to reduce emissions, and aviation is the only polluter at high altitude. The ICAO Assembly commissioned the ICAO Council to develop a global Market Based Measures (MBM) scheme by 2016.86

In October 2016, the ICAO Assembly adopted a Resolution to establish a Global Market Based Measure [GMBM] to offset greenhouse gas emissions from international aviation. ICAO will prescribe detailed technical rules to contribute to the objective of carbon neutral growth in aviation from 2020. Airlines will be expected to purchase “emission units”, potentially from other industry sectors, to reduce carbon emissions. From 2021 to 2026, State participation is voluntary, though 65 States have already indicated they would opt-in.87 The rules will be mandatory as of 2027; however, certain States (small islands developing states, least developed countries, land-locked developing countries and states representing a small share of aviation activities),88 will be exempted. The EU ETS differs from the ICAO GMBM system, in that EU ETS is a ‘cap and trade' scheme, which means that emissions cannot

85 Ibid at 218.
86 See ICAO, Assembly Resolutions in Force (as of 4 October 2013), ICAO Doc 10022, ICAO Res 38-18, online: ICAO <www.icao.int/environmental-protection/Documents/A38-17_A38-18.pdf>.
87 Albania, Armenia, Australia, Austria, Azerbaijan, Belgium, Bosnia and Herzegovina, Bulgaria, Burkina Faso, Canada, China, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Guatemala, Hungary Iceland, Indonesia, Ireland, Israel, Italy, Japan, Kenya, Latvia, Lithuania, Luxembourg, Malaysia, Malta, Marshall Islands, Mexico, Republic of Korea, Republic of Moldova, Monaco, Montenegro, Netherlands, New Zealand, Norway, Papua New Guinea, Poland Portugal, Qatar, Romania, San Marino, Serbia, Singapore, Slovakia, Slovenia, Spain, Sweden, Switzerland, Thailand, The former Yugoslav Republic of Macedonia, Turkey, Ukraine, United Arab Emirates, United Kingdom and the United States of America.
88 Examples of exempted States are:
Small Islands Developing States, e.g. Cape Verde, Haiti or Tuvalu.
Least Developed Countries, e.g. Afghanistan, Burkina Faso or Myanmar.
Landlocked Developing Countries, e.g. Niger, Turkmenistan or Zimbabwe.
Countries with de minimus aviation activities, e.g. Venezuela, Senegal, Lebanon or Pakistan.
increase beyond a specified ceiling, while the GMBM is an ‘offsetting scheme’ whereby emissions may increase without limit so long as they are offset with “emission units”.

The 21st century likely will see accelerated and robust technological, economic, environmental and political change. 89 Air Law will be required to evolve at a pace adequate to address that change. The challenges and opportunities for global aviation are many, and will evolve in ways that cannot yet be perceived.

V. PROPOSED IMPROVEMENTS IN THE ORGANIZATIONAL STRUCTURE OF ICAO

As noted, ICAO has been quite successful in harmonizing International Air Law globally. By and large, issues of safety and navigation have not been controversial or political. Also there has been coalescence of States on the need to protect the security of aviation. On the environmental front, there has been less consensus among States, and less still, on economic regulatory issues.

Nonetheless, some streamlining could be done to improve the operational efficiency of ICAO. For one, ICAO is an unusual UN agency (created months before the parent organization) in that it has a large and permanent Council comprised of triennially-elected representatives of 36 States – a size arguably too large for efficient decision-making.90

Moreover, unlike any other UN agency, ICAO also is dual headed, with both a Secretary General and Council President.91 With the retirement of Assad Kotaite as President, who served longer than any other senior executive in an international organization, the three-year terms of the President and Secretary General are now limited to two. Consolidation of these positions would streamline decisional authority, reduce cost, and bring ICAO into line with all other UN agencies.92

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89 attē, supra note 16 at 394.
80 Originally, the Council was comprised of only 21 delegates, but a series of amendments beginning in 1961 gradually raised the number to 36.
Further, all formal business at ICAO is conducted in six official languages, requiring large teams of translators and imposing relatively enormous operational costs, accounting for about a fifth of ICAO’s budget. English is the global language of aviation. Though the conventions and protocols drafted at ICAO-hosted diplomatic conferences are produced in six “official languages”, ICAO’s Legal Bureau reviews only the English-language version for accuracy. The Tower of Babel thereby built creates opportunity for divergent interpretations, eroding the fundamental purpose of international Air Law – unification of law across boundaries. Mercifully, the original Warsaw Convention of 1929 had but one official language – French, then the language of international diplomacy.

Costs could be significantly reduced and efficiency improved if the Secretary General and Council President positions were consolidated, the Council reduced to a more moderate size, and the six official languages reduced to one. Alternatively, States that insist that their language be included in the group should be required to finance the costs of translation. Changes of this sort would require amendments of the Chicago Convention, and so as to reduce political opposition, should enter into force some time (e.g., a decade) after ratification, accession, or succession.

VI. CONCLUSION

Aviation contributes much to our culture and our global economy. It shrinks the planet, and integrates people of vastly different backgrounds. Commercial aviation is, by far, the safest form of transportation, and likely will remain so throughout this century.\(^{93}\)

Moreover, our international legal institutions have fared well. ICAO has been enormously successful in the unification of international aviation law globally, and is a paradigm of global governance.

The remainder of this century will be at least as challenging as its first decade and a half. Since the non-event of Y2K, already we have seen fuel price spikes and collapses, major airline bankruptcies,\(^{94}\)


\(^{94}\) Paul Stephen Dempsey, “The Financial Performance of the Airline Industry Post-
The future of international air law in the 21st century

liquidations, acquisitions and consolidations, shifting alliances, breath-taking advances in technology including aircraft made of composites flying longer distances and burning less fuel, aerospace vehicles, drones landing on the White House lawn, catastrophic kamikaze terrorism, surface-to-air missiles downing commercial aircraft, mysteriously disappearing aircraft swallowed by oceans, and growing concerns over carbon emissions, global warming and climate change. The ancient Chinese curse was, “May you live in interesting times”. We live in such times.