

AIR LAW 1972-2022

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I. *Introduction.*

The evolution of air law during the next half-century will, as in the past half-century, be dependent on developments in aeronautical technology and in the society which that technology will serve.

Aviation has come a long way from the day when the pilot was alone in the sky. Air navigation is increasingly, and will continue to be, the object of systems planning aimed at ensuring close integration of the various components into a system so that ground-based facilities and services, the characteristics of aircraft, airborne equipment and associated procedures are compatible and form a coherent whole. This approach, coupled with a high degree of automation, will make air navigation safer and thus help to phase out litigation attendant upon aircraft accidents.

Moreover, as the half-century progresses there may be a greater integration of surface and air transport, to say nothing of an integration of global transport with interplanetary transport.

The feverish work carried out in the 1960s and early 1970s to redevelop concepts of passenger liability and to prepare legal rules for the repression of acts of unlawful interference with international civil aviation, a continuing desire of states to view in an up-to-date context the surprisingly adaptable Convention on International Civil Aviation (Chicago, 1944), a willingness of the aviation community to face up to legal problems inherent in its relationship to the environment and, lastly, a growing realization that if law is to retain its credibility, it must keep pace with, and not be a clog on, technology are all so many factors which even now indicate the shape of air law in the future and ease the task of a lawyer who would predict the evolution of air law over the next five decades.

In few fields of law, have internationally prepared rules had so

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much impact on domestic law as in the case of air law. Therefore, the discussions in this article are concerned with the international air law of the future. These discussions will be concerned with public and private law. They will not be exhaustive as to subject matter, but attention will be concentrated on some of the main changes that may be expected in air law in the years to come.

II. *Public Law.*

1. *Introduction.*

The discussions on public law contained in this Part will be concerned with the Convention on International Civil Aviation (Chicago, 1944), the international criminal law pertaining to aviation, the powers and duties of the aircraft commander and the exchange of commercial rights in international air transport.

2. *The Convention on International Civil Aviation and Related Problems.*

(a) *Introduction.*

The convention on International Civil Aviation (Chicago, 1944) accepts the principle that every state has complete and exclusive jurisdiction over the airspace above its territory. It is concerned with the privileges and restrictions governing international air navigation, provides for the adoption of international standards, recommended practices and procedures pertaining to air navigation, provides for contracting states to furnish air navigation facilities and services, and contemplates the facilitation of international air transport by the reduction of customs, immigration and other formalities. The Convention provides for the establishment of the International Civil Aviation Organization (ICAO) which works through a sovereign body, the Assembly, open to all contracting states, a Council of limited membership and a host of other bodies.

For the purposes of the present examination we shall discuss the five following selected topics related to the Convention on which there may be certain fundamental changes during the next half-century: the registration of aircraft—possible trends; aviation and the environment; facilitation; the norms governing international air navigation and the future framework for the regulation of international civil aviation.

(b) *Registration of aircraft. Possible trends.*

(i) *Present rule.*

The present rule is that aircraft have the nationality of the state in which they are registered, that an aircraft cannot be validly registered in more than one state, but its registration may be changed from one state to another, and that every aircraft en-

gaged in international air navigation shall bear its appropriate nationality and registration marks. The application of many of the provisions of the Chicago Convention and its Annexes, which contain standards and recommended practices concerning air navigation facilities and services and facilitation matters depends on the hypothesis that aircraft will be registered in a state. For example, every aircraft engaged in international navigation must be provided with a certificate of airworthiness issued or rendered valid by the state of registry and the pilot of every aircraft and other members of the operating crew of every aircraft engaged in international navigation must be provided with certificates of competency and licences issued or rendered valid by the state of registry. There is international recognition of the validity of these certificates and licences provided that the requirements under which they were issued or rendered valid are equal to or above the minimum standards established from time to time pursuant to the Convention.

(ii) *Difficulties which arise in the case of the lease, charter and interchange of aircraft.*

In recent years, there has been a marked increase in arrangements for the lease, charter and interchange of aircraft, particularly aircraft without crew, operated in international commercial services and undoubtedly these arrangements will increase in the future, since they promote high utilization of expensive aircraft. But the Chicago Convention does not adequately specify the rights and obligations of the state of a lessee-operator of such an aircraft since, as already stated, the Convention is oriented towards the state of registry of an aircraft rather than the state of the lessee. There are many practical solutions which can be adopted for difficulties which can arise in the case of lease, charter and interchange arrangements without crew such as leaving the operation of the aircraft to be governed by the state of registry, exempting the aircraft from the law of the state of registry, the negotiation of *ad hoc* solutions, the delegation of functions of the state of registry to the state of the operator, the transfer of registration of the aircraft from one state to another and, lastly, the amendment of the Chicago Convention. The practical solution of delegation of functions of the state of registry to the state of the operator is the one that seems to be indicated for adoption in the near future. But the fundamental legal problems which arise under various articles of the Chicago Convention could not be overcome merely by a process of delegation, since third party states would not be bound to recognize a delegation and could always insist upon compliance with provisions of the Convention by the state of registry itself. Hence, in the long term, it may well be that the Chicago Convention will undergo some amendment so as to attach to the state of

the operator-lessee rights and obligations now attached to the state of registry.

- (iii) *The advent of international operating agencies and increased co-operation among airlines in sharing the use of equipment.*

As aircraft become ever larger and more expensive to purchase and operate, they may in the future often be operated by international operating agencies composed of states or in virtue of co-operative arrangements between airlines of different nationalities. The operation by international operating agencies of large and expensive aircraft registered on other than a national basis could become a reality in the future. This could lead to the use of article 77 of the Chicago Convention and of the related ICAO Council general determination made thereunder in 1967. Article 77 empowers the Council to determine in what manner the provisions of the Convention relating to nationality of aircraft shall apply to aircraft operated by international operating agencies; and the Council determination, as drafted in 1967, contemplates joint registration of aircraft on other than a national basis as well as international registration. It may even transpire before the end of the present century that the Chicago Convention will be amended to take into account that, without the necessity of having recourse to an ICAO Council determination under the Chicago Convention, there could be aircraft registered on other than a national basis.

(c) *Aviation and the environment.*

Like other forms of technological activity, aviation has affected, and will continue to affect, the human environment. It is planned that, where required, the noise of present subsonic jet aircraft be brought to acceptable levels through a programme of retrofitting to make propulsion systems quieter. A new Annex to the Chicago Convention, which came into force in 1972, establishes international norms for future subsonic jet aircraft which will not be certificated for flight if they do not comply with these norms. As subsonic jet aircraft will be around for many years to come, it is quite possible that the norms which came into force in 1972 may still apply to such aircraft up to the twenty-first century.

The tolerable limits of sonic boom caused by supersonic aircraft are now the object of detailed inter-disciplinary study in ICAO which is examining the technical, economic and legal aspects of the matter. If the limits of social toleration of supersonic aircraft are established, appropriate norms could be developed, as in the case of noise caused by subsonic jet aircraft, and included in an ICAO Annex. Such norms could, as in the case of the noise norms, apply well into the twenty-first century.

Painstaking studies now under way to develop the above-mentioned norms will produce effects long after the authors of these studies have been succeeded by another generation of technicians, economists and lawyers.

(d) *Facilitation.*

With the increased use of electronic data-storage and data-scanning equipment, the amount of documents required by passengers, baggage and cargo crossing national borders could be reduced. Notably, the computerized passport may soon be a reality. Computerized customs and commercial documents could become the rule. With the hoped-for increase in the level of world health and a reduction in communicable diseases, it may be possible to reduce, as has already been done in certain regions, requirements concerning vaccinations and inoculations. This could lead to a partial rewriting of the international aerial sanitary conventions, and there could also be marked changes in Annex 9 (Facilitation) to the Chicago Convention.

(e) *The norms governing international air navigation.*

At the present time ICAO normative material, in the form of standards, practices and procedures, is adopted on a contracting-out or recommendatory basis, as the case may be. In particular, any state which finds it impracticable to comply in all respects with an international standard or procedure, or to bring its own regulations or practices into full accord with any international standard or procedure after amendment of the latter, or which deems it necessary to adopt regulations or practices differing in any particular respect from those established by an international standard, is obliged to give immediate notification to ICAO of the difference between its own practice and that established by the international standard. But the airspace resource will become more and more scarce as time goes on and in order that the allocation of this resource may be made safely and efficiently, aviation is proceeding, in many areas of the world, towards an almost totally integrated system whereby the aircraft will be only a part of an extremely complex whole. Such a system may be unable to tolerate serious differences in respect of certain of the international norms governing air navigation.

Under the foregoing circumstances, before the end of the twentieth century, technology may force international air navigation to be regulated on a world-wide basis in the utmost detail and may bring it about that ICAO standards, practices and procedures may have to be binding on states with little, if any, possibility of deviation. The international minimum of the rules required for the safety of air navigation may have to be much higher than it is at present due to the vast increase in the use of airspace. This may

even bring the aviation world to a stage where the internationally established norms for air navigation may have to be given, at least in some respects, legislative authority. Indeed, for almost a quarter of a century, the ICAO-established Rules of the Air have been applicable over the high seas without deviation. That is to say, once these Rules of the Air have come into force, no state can file differences with respect to them in so far as these Rules apply over the high seas.

On a related topic, the present practice whereby states negotiate for later approval by the ICAO Council, a regional plan for air navigation facilities and services may have to be given a stronger legal foundation in that if, through technological incapability or financial difficulties, a state cannot furnish a facility or service required of it, there could be a right of recourse to some form of international joint financing. ICAO has already had considerable experience in international joint financing in the North Atlantic region over the past quarter century.

Again, at the present time, resolutions of the ICAO Assembly request states to ignore national boundaries in planning air traffic control services. In a few decades, as the international airways become even more crowded, these requests may have to become edicts as the inexorable laws of aeronautical technology will blur national boundaries in the interest of the safety of flight.

(f) *The future framework for the regulation of international civil aviation.*

Ultimately, aviation might become just one element in interlocking, global, and even interplanetary, transportation systems. This integrated approach could conceivably eliminate wasteful competition, not only between different modes of transportation, but also within each mode, including aviation. In the distant future, there may be international intergovernmental machinery for the multilateral regulation of the economic and even political aspects of international civil aviation as part of transportation viewed as a whole. Moreover, due to crowded airspace, the distinction now drawn in the Chicago Convention and national laws between civil aviation and other forms of aviation may become meaningless for purposes of allocating the use of airspace.

3. *International Criminal Law Pertaining to Aviation.*

The Convention on Offences and Certain Other Acts Committed on Board Aircraft (Tokyo, 1963)¹ does not create specific offences, but it does have the virtue of ensuring that there will always

¹ Fifty-nine states were parties to the Tokyo Convention as of October 1st, 1972.

be a jurisdiction (namely, that of the state of registry of the aircraft) in which a person who has committed an offence on board an aircraft can be tried. The Convention also provides for the powers and duties of the aircraft commander and others in respect of the restraint and disembarkation of the suspected offender. It provides a detailed code of behaviour for states in whose territory the suspected offender is disembarked and also stipulates the steps to be taken in the case of the unlawful seizure of an aircraft. The Convention for the Suppression of the Unlawful Seizure of Aircraft (The Hague, 1970)² defines the offence of unlawful seizure, provides for universal jurisdiction over the suspected offender and the taking of him into custody. It also provides that prosecution and extradition of the suspected offender will be able to operate without too many restrictions. The Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation (Montreal, 1971) describes a number of offences which constitute acts of unlawful interference directed against international civil aviation. It provides for universal jurisdiction over the offender and, in general, contains provisions on custody, extradition and prosecution similar to those found in the Hague Convention.

The Tokyo Convention has already been widely accepted and states continue to ratify it in considerable numbers. The Hague Convention has already been in force since October 1971 and the number of states parties to it continues to increase. There is also hope that the Montreal Convention will be widely accepted. These three Conventions should set the pattern for much of the criminal law pertaining to aviation over the next half-century and one may expect that further refinements to, and expansions of, these Conventions will be made in the future. In particular, as aircraft increase in size and the potential risk inherent in hijacking becomes even greater, the offence of hijacking will possibly be considered to be so heinous that there will be a public outcry to declare by a convention rule that hijacking is on the same footing as piracy *jure gentium* and that the hijacker should be treated, for all purposes, as a sea pirate, *hostis humani generis*. There could also eventually be public support for stronger extradition provisions so that there would be a firmer commitment by a state party to the Hague and Montreal Conventions to return the suspected offender to the state requesting his extradition.

In 1970-1971, there was an attempt to have the ICAO Legal Committee prepare a convention on concerted action aimed at securing the enforcement of international obligations of states under the ICAO conventions relating to unlawful interference with international civil aviation. There was strong opposition to this

² Forty-two states were parties to the Hague Convention as of October 1st, 1972.

project partly on the ground that the proposed convention contemplated the application of sanctions to states found in default under it and this was a matter, it was said, within the competence of the United Nations. By mid-1972, due to an increase in terrorist activities and the hijacking of aircraft, crew and passengers for blackmail purposes, another attempt to draw up the convention was under way. If, eventually, such a convention were prepared, it would form an important part of the criminal law of aviation during the next half-century.

4. *Powers and Duties of the Aircraft Commander.*

Many of the aircraft commander's powers and duties are spelled out in the Tokyo Convention of 1963 as well as in various annexes to the Convention on International Civil Aviation. There are still certain other powers and duties of the aircraft commander pertaining to acts of civil status such as the witnessing of marriages or the recording of births and deaths occurring on board aircraft. These and similar matters are dealt with in national laws to a considerable extent; but there is, as yet, no international convention dealing with such residual questions. The aircraft commander may eventually, like the ship's captain, become *maître après Dieu*, although, on the other hand, as technology takes over and aviation becomes ever more automated, he may well be relegated to the role of overseeing the technical operation and powers exercisable on board the aircraft with respect to non-technical matters may be vested in a non-technical person.

5. *Commercial Rights in International Air Transport.*

At present, the exchange of commercial rights exercised in international air transport is regulated by a patch-work of arrangements. Most traffic rights pertaining to scheduled international air transport are awarded, after bargaining, between states, through a complex network of bilateral air transport agreements. The first two freedoms of the air, namely, the right of over-flight and the right to make non-traffic stops, are awarded on a multi-lateral basis, in so far as scheduled airlines are concerned, among the eighty-one states parties to the International Air Services Transit Agreement (Chicago, 1944). Only twelve states are parties to the International Air Transport Agreement which provides not only for the two freedoms just mentioned, but also for the third, fourth and fifth freedoms which relate to the carriage of passengers; hence, the Transport Agreement has little effect.

Article 5 of the Convention on International Civil Aviation (Chicago, 1944) grants ICAO contracting states the right of non-scheduled flight, which extends to the commercial transport of

passengers and cargo, subject to a reservation whereby each state may impose regulations, conditions or limitations.

The watertight compartments of national sovereignty, as evidenced by the bilateral air transport agreements for scheduled international air services, are, even today, being pierced to a certain extent by various forms of co-operation among airlines. The scheduled traffic rights have been eroded by the great increase in charter operations.

Only a skilled economist could predict the future. But there does seem to be a more regional approach to operations through the growth of regional airlines and this could eventually lead possibly to an exchange of commercial rights as between groups of states rather than on a merely bilateral basis. The ideal would be attained by a return to the dream of the Chicago Conference where Australia and New Zealand proposed the international ownership and operation of world air transport services so as to promote the economic health of aviation and eliminate nationalism and wasteful competition in the development of air transport as a means of international communication. This could come about for certain kinds of air services; but one cannot be easily optimistic about such a development since bilateralism and national sovereignty are so deeply entrenched for trade purposes, including the grant of air traffic rights. The long-range outlook for the exchange of air traffic rights internationally may be that a limited number of services will be internationalized on a global scale; a somewhat greater number of services will be internationalized on a regional basis and the not inconsiderable remaining international services will be founded on a network of bilateral air transport agreements. That could occur by the beginning of the next century.

III. *Private Law.*

1. *Introduction.*

The discussions on private law contained in this Part will refer to the rules which will in future govern the liability of the air carrier in respect of the carriage of passengers, baggage and cargo, the liability of the operator of an aircraft in the case of damage caused by foreign aircraft to third parties on the surface and aerial collisions, and the liability of air traffic control agencies.

2. *Liability in the International Carriage of Passengers by Air.*

The Convention on the Unification of Certain Rules relating to International Carriage by Air (Warsaw, 1929), adopted during the infant days of the international carriage of passengers by air for hire or reward, has dominated the field of aviation passenger liability for well over four decades and will continue to have an

effect for some time to come.³ The presumed liability regime of the Warsaw Convention, as amended by the Hague Protocol of 1955, has now yielded to the absolute, or, as some would call it, *strict* liability regime of the Guatemala City Protocol of 1971. The last-named instrument will not come into force for some time because, for it to do so, at least thirty ratifications, including those of five big air traffic states will have to be deposited.

The passenger limit has gone from \$8,300.00 U.S. in the original Warsaw Convention, through \$16,600.00 U.S. in the Hague Protocol⁴ to \$100,000.00 U.S. in the Guatemala City Protocol which also contains a provision for a domestic supplement if a state party to the Guatemala City Protocol wishes to have a higher limit. There is also the Montreal Agreement which has been accepted by over 400 airlines whereby all airlines flying to, through or from the United States will accept a regime of absolute liability coupled with much greater limits of liability than those found in the Warsaw Convention or the Hague Protocol, namely, a limit of \$58,000.00 U.S. (exclusive of legal fees or costs) or \$75,000.00 U.S. (inclusive of legal fees or costs).

It is also observed that the limit established by the Guatemala City Protocol for the delay of a passenger as distinct from the case of the death or injury of a passenger is in the amount of \$4,150.00 U.S.

The Guadalajara Convention, supplementary to the Warsaw Convention, was adopted in 1961 to provide that where carriage was performed by other than the contracting carrier, that is to say, by a carrier who himself had not issued the ticket to the passenger, both the contracting carrier and the actual carrier would be held jointly and severally liable under the Warsaw Convention or that Convention as amended by the Hague Protocol as the case may be. The Guadalajara Convention has been accepted by thirty-nine states.

During the next few years, the exact limit of liability which will apply, if indeed any limit at all will apply, to a passenger engaged in international flight will continue to be determined by a kind of international lottery whereby the pay-off will be related to the passenger's points of departure and destination since it is in accordance with those points that there would respectively apply the original Warsaw Convention, that Convention as amended by the Hague Protocol, the Montreal Agreement and the Guatemala City Protocol. Due to the flexibility written into the Guatemala City Protocol in terms of the domestic supplement and the increased acceptance of a regime of absolute liability as affording good social

³ Ninety-nine states are parties to the Warsaw Convention.

⁴ Seventy-four states are parties to the Hague Protocol.

justice, one may expect that the Guatemala City Protocol may play over the next few decades the same role as has been played during the past forty years by the Warsaw Convention.

3. *Liability in the International Carriage of Baggage by Air.*

At the present time, the Warsaw Convention, even as amended by the Hague Protocol of 1955, provides that in the case of the carriage of baggage, the liability of the carrier for destruction, loss, damage or delay is limited to \$16.58 U.S. per kilogram for each passenger. The liability of the carrier for objects of which the passenger takes charge himself is limited to \$331.67 U.S. The applicable regime is that of presumed liability of the carrier.

The Guatemala City Protocol of 1971 changed this regime. Baggage, which for the purposes of the Protocol is defined to include both checked baggage and objects carried by the passenger, is subject to the same regime of absolute liability as that applied to the carriage of passengers except in the case of delay. The carrier is not liable for damage occasioned by delay to the baggage if he proves that he and his servants and agents have taken all necessary measures to avoid the damage or that it was impossible for them to take such measures. The limit of liability applicable to baggage, including objects which the passenger carries himself in the case of destruction, loss, damage or delay is established by the Guatemala City Protocol as a fixed amount of \$1,000.00 U.S.

As in the case of passenger liability, it is safe to say that when the Guatemala City regime governing baggage comes into force, it may dominate the liability field in respect of the carriage of baggage for the next few decades.

4. *Liability in the International Carriage of Cargo by Air.*

The Warsaw Convention, as amended by the Hague Protocol, provides for the presumed liability of the air carrier in respect of the carriage of cargo by air in the case of destruction, loss, damage or delay. The liability of the carrier is limited to the sum of \$16.58 U.S. per kilogram unless the consignor has made, at the time when the package was handed over to the carrier, a special declaration of interest in delivery at destination and has paid a supplementary sum if the case so requires.

The ICAO Legal Committee has on its work programme the possible revision of the Warsaw cargo provisions. It may be expected that any revision of these provisions would take into account the possible substitution of the current air waybill by any other means which would preserve a record of information (whether in its present form or in some revised form) of the kind usually included in an air waybill. The revisers of the cargo provisions will also have

to examine the question of the limit of liability to be applicable to the carriage of cargo. Air cargo, as a rule, has a much greater value per kilogram than cargo shipped by surface transport. But the difference between the figures for shipments by air and surface could be reduced if, in the future, larger aircraft, including dirigibles, were brought into service as bulk-cargo carriers. Under these circumstances, there could possibly be relatively high limits for the traditional type of air carrier that would be concerned with transporting expensive commodities and relatively low limits for bulk-cargo air carriers.

If the passenger liability concepts of the Guatemala City Protocol were partly followed, the future Warsaw provisions on cargo, which would no doubt prevail for many years to come, could involve: a further simplification of documentation; the absolute liability of the carrier where cargo is lost, destroyed or damaged; a rebuttable presumption of liability of the carrier where it is delayed; a recognition of highly computerized methods of air cargo handling which could lead to a revision of the cargo provisions and even their elimination from the Convention; the possibility of more than one unbreakable limit applicable to air cargo, particularly for bulk-cargo air carriers, and the inclusion of pick-up, transshipment and delivery services as part of the carriage by air. There is also the further question as to how the Warsaw cargo provisions would fit into the context of the international inter-modal transport of cargo, this being a subject which is under present study in the United Nations in the form of a proposed convention on the international combined transport of goods, commonly called the draft TCM Convention.

5. Liability for Damage Caused by Foreign Aircraft to Third Parties on the Surface.

Although there is a Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface (Rome, 1952), this instrument has not been widely accepted, there having been only twenty-seven parties to it by late 1972. Briefly, the Rome Convention provides for absolute liability (with only a few defences) of the operator of a foreign aircraft which causes damage on the surface. The operator's liability is limited to certain monetary amounts expressed in Poincaré gold francs and calculated in relation to the weight of the aircraft concerned. The lowest limit amounts to the equivalent of \$33,200.00 U.S. for aircraft weighing 1,000 kilograms or less. The limit for an aircraft of 50,000 kilograms is the equivalent of \$696,518.00 U.S. with a further increase of \$6.63 U.S. per kilogram for aircraft in excess of 50,000 kilograms. These limits may be broken in certain cases. The Con-

vention provides for securing the operator's liability by means of insurance, a cash deposit or guarantee. It also provides for recognition and execution of foreign judgments on claims arising under the Convention.

Work on revision of the Convention was suspended in 1967 due to the work on the revision of the Warsaw passenger liability regime and unlawful interference with international civil aviation. The task of revision is scheduled to begin in 1973 and will be concerned with such matters as sonic boom, nuclear damage, the limitation of liability and insurance. With the huge aircraft now in service and even bigger aircraft predicted for use in years to come, the possibilities of catastrophic third party damage caused on the surface by aircraft are ever increasing.

6. *Aerial Collisions.*

Work on the development of a convention on aerial collisions was carried out sporadically from 1931, when the *Comité international technique d'experts juridiques aériens* undertook study of the subject, until 1964 when ICAO prepared its last draft convention on the subject at Montreal. The theoretical damage that could occur if two Boeing 747s, fully loaded, were to collide over a built-up area and then crash to the ground staggers the imagination. The hulls of the two aircraft would alone be worth \$50,000,000.00 U.S.; some 700 passengers at the Guatemala City limit of \$100,000.00 U.S. each would give a figure of \$70,000,000.00 U.S.; there would also be damage due to the loss of highly trained crew, loss of use of the aircraft and, lastly, damage to persons and property on the surface. A figure of \$250,000,000.00 could soon be reached.

The Montreal draft convention of 1964 is intended to provide international rules for the regulation of the liability of operators of aircraft involved in a collision or interference if such occurrence entails certain international elements which are specified in the draft. The draft convention governs the liability of an operator of an aircraft so involved with respect to damage caused to any other aircraft concerned as well as to persons and property on board such other aircraft.

That no convention on aerial collisions yet exists is due to many reasons. A basic reason is that it is the meeting point of a whole complex of liabilities and, as has been seen, a key system of liability, that contained in the Warsaw Convention has been under revision for a number of years and the revision of the Rome Convention has not yet begun. Another reason is that it is difficult to obtain agreement on the exact formula for allocation of liability in the case of an aerial collision.

Once the radically changed Warsaw passenger regime has become accepted and the work on revision of the Rome Convention gets under way, the liability regimes contained in the collisions draft will require careful re-examination. A convention on aerial collisions would form an important part of the air law of the future since it would provide the machinery for reconciling and settling the multitude of conflicting claims that could arise from a catastrophic aerial collision.

7. *Liability of Air Traffic Control Agencies.*

During the 1960s, the Legal Committee did some preliminary work on the development of a convention on the liability of air traffic control agencies. The importance of having a systematic statement of legal rules governing the liability of these agencies hardly needs to be emphasized given the key role that the facilities and services which they operate play in international air navigation.

When it last considered the question of the liability of air traffic control agencies in 1967, the Legal Committee noted that the following topics required consideration: (1) Description of the services and facilities within the scope of the proposed convention; (2) Posture of the aircraft; (3) System of liability; (4) Limitation of liability; (5) Direct and recourse actions and apportionment; and (6) Security for liability.

Much work remains to be done before a convention on the liability of air traffic control agencies will be achieved. But the work already done indicates a trend of thinking which may now have to be viewed in the new legal and technological context of the 1970s. If the Warsaw passenger regime is now one of absolute liability, it will have to be considered whether there is justification for a fault regime in the case of air traffic control agencies. In addition, given the existence of highly automated procedures governing air navigation involving the use of air-ground data interchange systems with a minimum of human intervention, communications and meteorological satellites, equipment where micro-miniaturized electronic circuits may be used and a computer carried in the equivalent of a suit-case, could one realistically talk of proving fault in the event of a mechanical failure? The problems involved could be compounded by the fact that satellites may be operated by a single state, a group of states, a mixed body composed of states and a national company, or an international organization. In that event, who should be liable in the case of an air accident? All these are questions, the answers to which will determine the future liability rules governing air traffic control agencies.

8. *A Possible Unified Convention.*

Due to the close relationship of the Rome Convention, the sub-

ject of aerial collisions and the subject of the liability of air traffic control agencies, there is on the work programme of the ICAO Legal Committee an item which contemplates the joint study of these matters and the possible preparation of a single convention on all three questions. That would promote the movement towards an integrated system of liability where eventually all air law conventions could be grouped into one international code. Possibly, in half a century's time such a code will be a reality.

9. *International Recognition of Rights in Aircraft.*

The Convention on the International Recognition of Rights in Aircraft (Geneva, 1948) was prepared about a quarter of a century ago in order to promote the financing of the sale of aircraft by providing for protection of the lender's rights in an aircraft whenever the aircraft was found in the territory of a state party to the Convention. Apparently, the Convention has had a certain attraction for developing countries since out of the thirty-five parties, approximately three-quarters of the parties would be in the developing country category. Four of the parties could be classified as being among the major aircraft manufacturing states. Therefore, even if the Convention has not been widely accepted, it may over the next few decades, play a modest role in promoting the financing of international sales of aircraft to developing countries.

IV. *Conclusions.*

The task of predicting developments in air law during the next half-century is not an impossible one. On the basis of present knowledge, it is possible to forecast to some extent what will be the broad technological developments in aviation in the relatively distant future. It will be the task of lawyers and technicians and administrators working together, to fit the law into the new technological framework. They will do this initially through ICAO, by continuing to update not only the norms governing international air navigation, but also the techniques used for their development. Law generally is acquiring a greater social orientation and in future will be less a tool for imposing solutions of the powerful on the weak and more a vehicle for reconciling a broad range of conflicting interests.

On the public law side, there will be a move away from the rigid concept whereby civil aircraft must be registered in a national register, although national registration will continue to have its role to play. There will be legal rules adopted to ensure that aviation is a good neighbour in the human environment. Facilitation of border-crossing formalities should increase. The international norms governing air navigation may, because of crowded airspace,

have to become more binding than they are now with less opportunity for filing differences. There may be a requirement for one international organization to deal with all kinds of international transportation and communications on an integrated basis. The international law governing aviation crimes may be fleshed out. The aircraft commander may find his position changed as technology takes over much of his present role. The exchange of commercial rights in international air transport may be radically modified in the distant future as a rationalization of long-haul international air services takes place.

On the private law side, the new passenger and baggage liability rules developed in the 1960s and early 1970s will dominate the aviation liability field for a long time to come. The rules governing the carriage of cargo may be revised.

There will be a fresh approach to the question of damage caused by foreign aircraft to third parties on the surface. A convention on aerial collisions may come to pass and provide machinery for reconciling the many possible competing claims in tort or in contract in the event of an aerial catastrophe and there may even be a unified convention on damage to third parties on the surface, the liability of air traffic control agencies and aerial collisions.

Lastly, there may be an attempt to broaden the interest in the international recognition of lenders' property rights in aircraft in order to promote the sale of aircraft to developing countries.

Further, the lawyer will have to develop rules governing the multi-purpose and multi-media vehicles which travelling in turn through air space and outer space will transport passengers and cargo between distant points on the earth's surface.

In the world of the future, law and technology must walk hand in hand, with the law intervening to enable technology to serve the commonweal through appropriate regulatory mechanisms.
