FUTURE AIR NAVIGATION SYSTEMS AND ICAO: A NEW LOOK FOR GLOBAL AVIATION INTERACTING WITH SPACE LAW REGIME

by

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Abstract

The theme of 45th International Astronautical Congress is "Space and Cooperation for Tomorrow's World". This theme is most appropriate and serves the contemporary common aspirations of mankind the world over. To modern jurists, international cooperation appears to have the status of a general principle of international law. This is more so when we think of space activities. Tomorrow's world is another significant urge of mankind: to plan for a better world of tomorrow based on cooperation. We look to the future with hope.

Onset of FANS

With this background of cooperation and futuristic outlook in outer space and generally in the aerospace region, we notice that International Civil Aviation Organisation (ICAO) has evolved a new technology through the use of satellites for a new management system of aviation and airspace called Future Air Navigation Systems (FANS). This new management will provide a network of Communication through satellites. It will help world-wide air traffic control, search and rescue, safety and orderly management of global airspace. FANS will develop new economics for air traffic by reducing costs over oceans, deserts and geographical regions in the world where normal communication is poor. More aircraft can be admitted in congested terminal and en route airspaces. Like the roads and railways, FANS will help to develop new air routes across the world.

Historical Changes

This historic change in the technology and management of global airspace, and partly outer space, is in response to changes in the international system. Writing in 1989, the present writer had said: "Historical changes have taken place during the past three decades. One international system based on threat and mutual deterrence has partly given way to international cooperation and, seemingly, to a new, creative world order based on peace, harmony and scientific progress. Developments in space have contributed to these historical changes".[1]

In his Study of History, philosopher and historian, Arnold Toynbee, writes that human cooperation is a major theme for future of mankind along with exploration in technology. Space technology has brought mankind together. The common benefits to mankind from space exploration have resulted in areas of education, communication, remote-sensing et al. And now FANS have changed man's outlook on aviation and air law.

We also witness an interaction of air law and space law while dealing with FANS and reviewing the law in the aerospace regime in general.

Air Law-Space Law Interaction

Space law as contained in the Space Treaty of 1967 and other treaties and conventions is based on freedom and cooperation. The essence of space law has been peace, freedom,

cooperation, international consultations, and exploitation of space for the benefit of mankind.[2]

Air law as flows out of the Chicago Convention of 1944 is based on State Sovereignty over airspace, and international cooperation for air-space management.

In recent few years a new world order has already emerged in aviation. Aviation relations world over, including bilateral aviation relations, are increasingly being based on mutual cooperation and benefit. With liberalisation and pursuit of global market economy, aviation law has drastically changed from sovereignty - oriented law to cooperative market- oriented law. Current objectives and debates in the ICAO which held a colloquium in 1992 and in academic fora have the purpose of evolving a multilateral system of aviation relations, and replace past rigid bilateralism.[3]

Indeed the celebrated jurist Manley O. Hudson had long ago in 1930 lamented the loss to mankind due to restricted view in which international air law had developed.[4] He said that a great opportunity was lost after the first world war and since then where aviation could be put to greater benefit of mankind. However, cooperation now we see is possible in the present period with FANS and other developments taking place in aviation.

Indeed modern jurist now has cause to interpret air law from the Chicago Convention more liberally. Although Article I of the Convention recognizes that states have exclusive sovereignty over their airspace, Article 44 more importantly provides the major objectives for ICAO to which all states are members. These include: orderly growth of civil aviation throughout the world, development of aircraft designs and development of airways and airports, and meeting the needs of world for safe, regular, efficient and economical air transport.

In the current state of international law sovereignty is not opposed to cooperation. Even Huge Grotius defined sovereignty as the lawful use of common property.

So, we sum up that international air law has changed, is changing, to adjust to a new world economic and social order of present and 21st century.

Aerospace Law

FANS gives us a vision of the beginning of aerospace law: a law which is common to airspace and outer space region. The freedom and scientific spirit of space law has during past 35 years, interacted upon air law and imparted it with principles of cooperation and economic exploitation. Besides, we witness today a revolution of airspace management through use of outer space satellites. We do not seriously talk of the boundary problem between airspace and outer space. A vision of aerospace law was conceived by dreamers like John Cobb Cooper, the first Director of McGill Institute of Air and Space Law. Attempts were made in the earlier period of space exploration to demarcate the boundary between air and outer space. Jurists may recall such debates in the IAF, ASIL et al.

However, the world has seen great changes in space technology in recent years. We have FANS now, and, may be in future, we see the aerospace transport. The freedom spirit and economic exploitation are more important goals of mankind in outer space as also in air space. Besides, we have evolved a new world order based on mutual cooperation and peace.

FANS Benefits

Therefore we see an interaction of principles of air law of Chicago Convention with the space treaty of 1967. Indeed this interaction provides a new synthesis of global law and policy in aerospace region. FANS provides us a map of world of aerospace region of the 21st Century. A new vision of world order is before us because of use of satellites for aviation communication and air-space management. This order is being built on the edifice of Chicago Convention of 1944 and the customary law in the outer space. The ICAO has performed a great task indeed in evolving FANS for global use. Its record for management of global air-space is a marvel of this civilisation. The global airspace is divided into Flight Information Regions (FIR) with

common rules of air law for air safety, search and rescue and air traffic control. To this system, now FANS provide enhanced efficiency and superior and economic performance. In matters of surveillance, navigation and communication, FANS have a marked new role. Coupled with the new international mood of cooperation, and free economic exploitation of airspace, the world will usher a new era of economic use of aerospace region.

FANS has actually helped to develop new world economic order. The report on FANS from a developing country like India says it will increase safety margin, entrance capacity, provide uninterrupted air traffic control, cover many thin traffic areas which require adequate coverage, cover 50 per cent of Indian airspace which is over oceans, and provide services in hilly terrain and populated areas.[5]

Conclusions

I would like to conclude that FANS represents an important deal for integration of air law and space law. We witness the growth of aerospace law based on common interests of world community and based on international cooperation. Cooperation has replaced the traditional notion of sovereignty on which air law was based for past half- century. In this process space law has played a significant role. The freedom spirit of space law has permeated to air law as well. Space law itself has changed from competitive spirit to present global cooperation.[6]

I have been witnessing this development in the aerospace region for over two decades. FANS and similar developments in aerospace technology are likely to help to develop an integrated view of law in the aerospace region. It is the task for international lawyers and jurists to promote an integrated view for purpose of common benefits to mankind. Witness the current debate in air law to promote a two way approach to bilateral air services agreement. When competition and economic exploitation by all airlines is permitted along with the development of weaker national airlines.

This IAF Congress itself is proof of economic cooperation and scientific exploitation of outer space. There are sessions on subjects of navigation and positioning, earth observation, data processing and management, global change in environment, life sciences, biophysics, future systems and technologies, space and education, space power et al.

Obviously air law and air space management and exploitation cannot be shrouded in the mysteries of the past. The dynamics of space law must have impact on the regime of air law of which FANS is a significant development. We have therefore before us a map of aerospace law by interaction of air law and space law. ICAO and other space organisations have a joint task to shape aerospace law.

References

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2. See S. Bhatt, Legal Controls of Outer Space, Law, Freedom and Responsibility (New Delhi), 1973, pp.372.

3. See Bruce Stockfish, "Opening Closed Skies", JALC, Vol.57, 1992, pp.599-654.

4. See Manley O. Hudson, AJIL, Vol.24, 1930, p.228.

5. See Report on Implementation of Satellite Based CNS. System in India Airspace, Issued by National Airports Authority, India, 20 August, 1993, p.6.

6. See, S. Bhatt, Studies in Aerospace Law: From Competition to Cooperation, New Delhi, 1974, pp.208.