Dockets

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matters of

Provision of Aeronautical Services via the Inmarsat System	)	
	)	
Provision of Aeronautical Services via the Inmarsat System Order on Reconsideration and Further Notice of Proposed Rulemaking	)	CC Docket No. 87-75
	)	
Provision of Aeronautical Services via the Inmarsat System Notice of Proposed Rulemaking	)	

REPORT AND ORDER AND AUTHORIZATION

Adopted: October 5, 1998; **Released:** October 23, 1998

I. INTRODUCTION:

1. By this Order the Commission authorizes the continued use of Inmarsat[1] space segment capacity in United States airspace by Comsat[2] on an ancillary and supportive basis

[1] The International Mobile Satellite Organization ("Inmarsat." Formerly the International Maritime Satellite Organization.) is an international organization created to establish a global maritime satellite system to improve maritime communications. In October 1989, amendments to the Inmarsat Convention and Operating Agreement allowed the organization to provide aeronautical services in addition to maritime services. Currently Inmarsat provides the only worldwide aeronautical mobile-satellite service.

[2] Comsat is the U.S. representative, or signatory, to Inmarsat. It is the sole provider of Inmarsat capacity in the United States. For a discussion of the legal basis for Comsat's provision of Inmarsat aeronautical space segment capacity in addition to maritime services, see In the Matter of Provision of Aeronautical Services via the Inmarsat System ("*Aeronautical Services Order II*") 4 FCC Rcd. 6072 at ¶¶75,86.

for the provision of Aeronautical Mobile-Satellite (Route) Service (AMS(R)S) and Aeronautical Mobile-Satellite Service (AMSS), in portions of the L-band[3] on aircraft in international flight. This authorization will allow Comsat, through Inmarsat, to continue to provide an aeronautical safety service in the United States in a manner that best addresses our concerns about transfer, or hand-off, of communications between satellites and aircraft in international flight.[4] Further, because the spectrum being used by Inmarsat has been coordinated internationally, our decision to permit the continued use of Inmarsat space segment capacity to provide AMS(R)S and/or AMSS will not cause interference to the U.S. system licensed in this band.

2. Under the policy adopted in this Order, Comsat will be allowed to provide aeronautical service on an ancillary and supportive basis to aircraft in *international* flight. International flight is defined here as an aircraft travelling between the United States and a foreign point or an aircraft whose flight originates or terminates at a foreign point and lands at one or more points in the United States. Based on this definition, we modify Comsat's existing authorization for international service to reflect the geographic scope of an international flight as defined here.

II. BACKGROUND

3. On April 6, 1987, the Commission initiated a rulemaking to determine how aeronautical services via Inmarsat would be provided in the United States.[5] Aeronautical services includes both Aeronautical Mobile-Satellite (Route) Service (AMS(R)S) and Aeronautical Mobile-Satellite Service (AMSS). AMS(R)S is a mobile satellite service using mobile terminals on board aircraft (referred to as aircraft earth stations or AES). This service can be used to provide communications to support domestic and international air traffic, including air traffic control. The (R) indicates that the spectrum is used for aeronautical communications related to the safety and regularity of flights primarily along national and international civil air routes.[6] AMSS is a mobile-satellite service which, in

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[3] The L-band encompasses frequencies from 1525-1544/1545-1559 MHz and 1626.5-1645.5/1646.5-1660.5 MHz. Inmarsat is authorized to operate in the 1545-1559 and 1646.5 - 1660.5 MHz bands.

[4] The term "hand-off" is used in this Order to mean the switching of aeronautical communications, via an aircraft earth station, from one satellite service provider to another.

[5] Provision of Aeronautical Services via the Inmarsat System. CC Docket No. 87-75, Notice of Proposed Rule Making, 2 FCC Rcd. 1976 (1987).

[6] Survival craft and emergency position-indicating radiobeacon stations may also participate in this service. See 47 C.F.R. § 2.1.

general, includes communications such as passenger communications and airline administrative communications which are not related to safety or regularity of flight. Because AMS(R)S can be considered a subset of AMSS, in this order we will refer to both services, collectively, as AMSS.

4. The Commission initially denied Comsat's application to provide aeronautical services.[7] The Commission found, on the record then before it, that because of Comsat's monopoly status, the Maritime Satellite Act limits Comsat to international maritime services.[8] This decision, *Aeronautical Services Order I,* was appealed and subsequently remanded back to the Commission for further review at the Commission's request.[9] On August 4, 1989, the Commission issued a Report and Order, *Aeronautical Services Order II*, that reaffirmed the Commission's prior conclusion that Comsat's only express authorization under the Maritime Satellite Act is limited to maritime services, but found aeronautical services to be "ancillary to and supportive of its provision of maritime services" and thus not expressly prohibited by the Act.[10] Under this standard the Commission subsequently authorized Comsat to provide aeronautical services and international land mobile services on an ancillary and supportive basis via Inmarsat.[11]

5. *Aeronautical Services Order II* allowed only limited aeronautical mobile-satellite service in the United States through Inmarsat. The Commission authorized Comsat to provide Inmarsat aeronautical services on an ancillary and supportive basis to aeronautical earth stations for aircraft in flight: 1) from the United States to a foreign point; 2) from a foreign point into the United States; and 3) between any two foreign points. The Commission also held that aircraft in flight between two U.S. domestic points, even if part of an international flight, may use only a U.S. licensed MSS satellite.[12] On the same day, the

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[7] See Provision of Aeronautical Services in the Inmarsat System, 2 FCC Rcd. 390 (1987)("*Aeronautical Services Order I*") at ¶46.

[8] *Aeronautical Services Order I* at ¶35. See also International Maritime Satellite Act, 47 U.S.C. ss 751-757, ("Maritime Satellite Act").

[9] Appeal docketed, No. 87-1077/78 (D.C.Cir. February 12, 1987), remanded by Order of the Court on November 22, 1988 in response to the November 15, 1988 Commission request.

[10] See *Aeronautical Services Order II* at ¶¶ 86-101.

[11] See Authorization, 4 FCC Rcd. 7176 (1989). See also Authorization, 8 FCC Rcd 638 (1993).

[12] *Aeronautical Services Order II* at footnote 28. See also In the Matter of the Applications of Communications Satellite Corporation, Memorandum Opinion and Authorization, released October 5, 1989 ("Comsat Aeronautical Application") at footnote 7.

Commission authorized American Mobile Satellite Corporation (AMSC) to construct, launch, and operate a mobile-satellite system to provide a variety of domestic mobile-satellite communications services, including land, maritime, and aeronautical MSS in the L-band.[13]

6. In September 1989, British Telecommunications, PLC (BT), a provider of aeronautical communications services and the United Kingdom signatory to Inmarsat, filed a petition for reconsideration of *Aeronautical Services Order II*, asserting that the geographic restrictions specified in our decision were invalid under the Administrative Procedure Act (APA) because proper notice and comment were not provided.[14]

7. In response to BT's petition, on May 9, 1996, the Commission issued an Order on Reconsideration and Further Notice that resolved the notice and comment issue and tentatively concluded that, due to spectrum constraints, it should place geographic limits on the use of Inmarsat aeronautical services within the United States. The Commission presented several options as to the scope of those geographic limits.[15]

8. In addition, the Commission gave Comsat interim, but renewable, authority to

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[13] See Amendment of Parts 2, 22, and 25 of the Commission's rules to allocate Spectrum for and to Establish Other Rules and Policies Pertaining to the Use of Radio Frequencies in a Land Mobile Satellite service, Memorandum Opinion, Order and Authorization, 4 FCC Rcd. 6041 (1989)("*Domestic Licensing Decision*"). In that decision, the Commission concluded that multiple MSS systems were not feasible in the spectrum available in the upper L-band and that, given spectrum constraints, only one MSS system could be licensed for first generation use of the upper L-band. Thus, the Commission authorized AMSC to operate a mobile satellite system in the 1545-1559 and 1646.5-1660.5 frequency bands. AMSC's authorized coverage area includes all fifty states, Puerto Rico, the Virgin Islands and U.S. costal areas up to 200 miles. See Amendment of Parts 2, 22, and 25 of the Commission's Rules to Allocate Spectrum for and to Establish Other Rules and Policies Pertaining to the Use of Radio Frequencies in a Land Mobile Satellite Service. AMSC launched one of its proposed three satellite on April 7, 1995 and began providing service on January 24, 1996. To date, AMSC has not initiated the provision of AMSS.

[14] Order on Reconsideration and Further Notice of Proposed Rulemaking, In the Matters of Provision of Aeronautical Services Via the Inmarsat System and Aeronautical Radio Inc. and the Air Transport Association of America Request for Waiver, 11 FCC Rcd 5330 (1996) ("*Aeronautical Services Reconsideration & Further Notice*") at ¶6. The Commission granted BT's petition for Reconsideration, vacated the geographic restrictions adopted in *Aeronautical Services Order II*, and dismissed the remainder of BT's petition as moot.

[15] See *Aeronautical Services Reconsideration & Further Notice* at ¶12-15 and ¶29-30. The Commission also dismissed as moot the Arinc/ATA Request for Waiver and vacated the waiver granted in the Matter of Application for Authorization to Provide Limited Aeronautical Services within the U.S. via the Inmarsat System, Memorandum Opinion and Order ("Arinc Order"), 7 F.C.C. Rcd. 1006 (1992).

provide Inmarsat aeronautical services *domestically* for a period of 180 days.[16] Comsat has sought and obtained renewals of this STA, the latest of which expires on November 9, 1998.[17]

9. In the North American coverage area,[18] five operators, including AMSC and Inmarsat, provide or intend to provide, service in the L-band.[19] In accordance with the provisions of the Radio Regulations of the International Telecommunication Union (ITU), parties operating satellite systems must coordinate their spectrum use to prevent interference.[20] After seven years of negotiations, on June 18, 1996, representatives from Canada, Mexico, Russia, Inmarsat, and the United States agreed to an initial operating agreement for the coordination of MSS systems in the L-band (the "Mexico City Agreement"), for a period ending December 31, 1997. The parties also established an ongoing multilateral process whereby modification to the Mexico City Agreement can be made on an annual basis.[21] The Mexico City Agreement divides the L-band into segments which are then assigned to each party for its use.[22]

10. Although the L-band spectrum has been coordinated with the other North American operators, certain licensing aspects of this spectrum in the United States remain

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[16] See *Aeronautical Services Reconsideration and Further Notice* at ¶47. In September 1989, Comsat was originally authorized, with a number of conditions, to provide aeronautical mobile-satellite services via the Inmarsat system (1)from the United States to a foreign point; (2) from a foreign point into the United States; and (3) between any two foreign points. See In the Matter of Applications of the Communications Satellite Corporation, 4 F.C.C. Rcd 7176 (1989) at ¶18, 25-36.

[17] See Special Temporary Authority (SRD-0502, April 27, 1998) authorizing Comsat to provide interim Inmarsat aeronautical satellite services to aircraft in U.S. domestic flight.

[18] The North American coverage area includes all of North America and surrounding water areas, up to twelve (12) miles off-shore, within the northern and western hemispheres.

[19] The five systems are: MSAT, a Canadian licensed system; SOLIDARIDAD, a Mexican licensed system; Marafon, a Russian licensed system; AMSC, a U.S. licensed system; and Inmarsat, an intergovernmental system. See Reconsideration and Further Notice at ¶18.

[20] See Final Acts of the World Radiocommunications Conference (WRC-95) (International Telecommunication Union, Geneva, 1996), § S9.

[21] See Third Multilateral Meeting for the Intersystem Coordination of Certain Geostationary Mobile Satellite Systems Operating in the Bands 1525-1544/1545-15559 MHz and 1626.5-1645.5/1645.5-1660.5 MHz; Mexico City, Mexico; 10-18 June, 1996.

[22] Id.

subject to the outcome of an ongoing rulemaking. In June of 1996, the Commission released a Notice of Proposed Rulemaking to establish rules and policies for the use of spectrum for MSS in the L-band.[23] In the *L-band Proceeding*, the Commission proposed to authorize a modification of AMSC's license, allowing it to operate in portions of the L-band not previously authorized to it. The Commission proposed allowing AMSC to operate on up to 28 MHz (14 MHz for Earth-to-space transmissions and 14 MHz for space-to-Earth transmissions) of internationally coordinated L-band spectrum, as its initial license in 1989 had assigned to it. The Commission also proposed that if the U.S. were able to coordinate more than 28 MHz of spectrum in the L-band, it would allow other MSS applicants to apply for assignment of these frequencies.[24]

11. In the *DISCO II Order*, the Commission adopted a framework to govern provision of satellite services, including AMSS, in the United States by non-U.S. licensed entities, including Intergovernmental Satellite Organization (IGOs).[25] In the *DISCO II Order* we stated that we will continue to consider Comsat applications to provide *international* service in the United States via INTELSAT and Inmarsat on a case-by-case basis. We also decided that Comsat must make an appropriate waiver of its privileges and immunity from suit as part of any application to provide *domestic* services via INTELSAT or Inmarsat.[26] Also, as part of its application, Comsat must show that entry into the United States domestic market would promote competition and is otherwise in the public interest.[27]

12. Nine companies submitted comments and/or reply comments in this

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[23] Notice Of Proposed Rulemaking In the Matter of Establishing Rules and Policies for the Use of spectrum for Mobile Satellite Service in the Upper and Lower L-band. 11 FCC Rcd. 11675 (1996)("*L-band Proceeding*").

[24] See *L-band Proceeding* at ¶1.

[25] See *Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Space Stations to Provide Domestic and International Satellite Service in the United States*. IB Docket No. 96-111, Notice of Proposed Rulemaking 11 FCC Rcd 18178 (1996), Report and Order, FCC 97-399, 12 FCC Rcd 29094, 62 FR 64167 (released November 26, 1997) ("*DISCO II Order*") .

[26] See *DISCO II Order* at ¶¶126-127. For a more general discussion of Commission policies to allow intergovernmental satellite organizations to provide domestic and international satellite services in the United States, see *DISCO II Order* at ¶¶ 102-140. See also Report and Order and Notice of Proposed Rulemaking In the Matter of Comsat Corporation Petition Pursuant to Section 10(c) of the Communications Act of 1934, as amended, for Forbearance from Dominant Carrier Regulation and for Reclassification as a Non-Dominant Carrier. FCC 98-78,(released April 28, 1998).

[27] See *DISCO II Order* at ¶¶ 125-126.

proceeding.[28] Most cited the difficulty of mid-air hand-off, AMSC's non-compliance with international safety standards, and the incompatibility of AMSC's system with the Inmarsat system as reasons why Comsat should be allowed to provide aeronautical service within U.S. airspace and for all segments of international flights.[29] Several commenters also argue that the relatively small market for aeronautical services and the spectrum coordination agreement signed in Mexico City demonstrate that the rationale for geographic restrictions, namely spectrum constraints, no longer exists.[30] In addition, most assert that Comsat should be allowed to provide AMS(R)S service in the U.S. because the sole U.S. licensee, AMSC, is not currently providing the service.[31] AMSC, on the other hand, contends that the use of Inmarsat space segment should not be allowed in U.S. airspace because of the shortage of L-band spectrum, and it asserts that a mid-air hand-off of service between itself and Inmarsat is feasible.[32]

III. DISCUSSION

A. Report and Order

13. We find that the public interest is served by the continued use of the Inmarsat space segment in U.S. airspace for international aeronautical mobile-satellite service. This includes use of the Inmarsat system for the entire trip on outbound and inbound international flights, including flight segments between two U.S. domestic points, provided the flight has no change of aircraft. We here revise our policy regarding aircraft en route between two U.S. domestic points as part of an international flight because we find that requiring aircraft to hand-off international communications, especially safety communications, to a U.S.

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[28] The commenters are: Aeronautical Radio, Inc., AlliedSignal, AMSC, BT North America; Claircom (AT&T Wireless Services); Comsat; Inmarsat; GTE Airfone, and Rockwell.

[29] See Comments of ARINC at 7 and Rockwell at 4 (asserting difficulty of hand-off); See also Claircom at 3-4. See ARINC at 6; Claircom at 3-4; Comsat at 3, 5, 10 and Exhibit 1 (a "status report" on AMSC effort to develop an Inmarsat compatible system) arguing that access to the AMSC system would require separate and duplicative avionics; See INMARSAT at 8, 11-14 and Appendix 1 (analysis of AMSC and ICAO standards); See also Reply of BT at 3 and Reply of Inmarsat at 2.

[30] See Comments of AlliedSignal at ¶3.3, 4.3, BT at 3-4, and Inmarsat at 6 (asserting that spectrum allocation issues have been resolved); See ARINC at 2 ("[T]he amount of spectrum now used for domestic aeronautical service is small due to the availability of less expensive terrestrial aeronautical services") and Comsat at 6, FN 7 and FN 8, (stating that relatively few aircraft will use Inmarsat aeronautical services in the United States "even without a restriction."); See also Allied Signal at ¶4.3;

[31] Reply of ARINC at 2.

[32] Comments of AMSC at 1, 2.

licensed AMSS provider or to a terrestrial (that is, direct air-ground communications) service provider when it enters U.S. airspace could potentially cause severe disruption of service and affect aircraft safety. We also find that the alternative of equipping all aircraft used for international flight with a second satellite communications system would not be practical or safe because of the additional space, weight, and cost requirements.

14. The *Aeronautical Services Reconsideration and Further Notice* proposed three options for the provision of AMSS via Inmarsat in the U.S. pending successful coordination of spectrum in the L-band. The first option proposed would prohibit use of Inmarsat in U.S. airspace, which begins 12 nautical miles from the U.S. shoreline. This option would require aircraft to stop using Inmarsat and switch to the domestic AMSS system upon entry into U.S. airspace and before landing. The Commission stated in the *Aeronautical Services Reconsideration and Further Notice* that it would not adopt this approach if the record indicated that AMSC had not incorporated International Civil Aviation Organization (ICAO) requirements in its system design to eliminate interruptions in AMS(R)S service during such a mid-air hand-off.[33] AMSC admits that the design of its system "is not based on ICAO standards."[34] Even if AMSC were to demonstrate that it had incorporated ICAO standards, AMSC has not demonstrated that mid-air hand-off is practicable or safe. Thus, we do not adopt this option.

15. Under the second proposed option, we would permit the use of Inmarsat only until an aircraft's first landing point in the U.S. or upon an aircraft's last departure point from the United States. Although under this option, hand-off would occur on the ground, after the aircraft has landed, the Commission remained concerned about the reliability of transferring communications from one system to another and sought analysis and technical information on the degree to which hand-off procedures could be automated.[35] Commenters argue that AMSC cannot provide assurances of safety and reliability, even for on-the-ground hand-off, because its system does not include the software protocols that would allow it to

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[33] *Aeronautical Services Reconsideration and Further Notice* at ¶24. See also *Domestic Licensing Decision* wherein the Commission required AMSC "to incorporate into its overall system design whatever minimum requirements for aeronautical satellite communications systems are endorsed internationally through the International Civil Aviation Organization [and] establish appropriate arrangements for handing off aeronautical traffic between its system and others, such as Canada's and INMARSAT's." The Commission stated further that "[t]hese requirements will enable the U.S. MSS system to be interoperable with other countries' and international systems and will maintain the integrity of AMSS(R) communications internationally and domestically." *Domestic Licensing Decision*, 4 FCC Rcd. 6041 (1989), at ¶94.

[34] Reply of AMSC at 7 n. 10.

[35] See *Aeronautical Services Reconsideration and Further Notice* at ¶26.

work with Inmarsat without installing additional equipment aboard aircraft.[36] AMSC admits that "to offer a service that permits users of Inmarsat space segment to use AMSC space segment without any change in equipment, AMSC would also need to license certain protocols that are proprietary to Inmarsat."[37] Nevertheless, AMSC contends that hand-off is "feasible" through installation of additional equipment aboard aircraft.[38] Despite AMSC's claims, its submission to the record did not include analysis and technical information to demonstrate the reliability of hand-offs between the AMSC and Inmarsat systems, nor the degree of any potential interruptions. In addition, we are persuaded by commenters who assert that retrofitting aircraft with a second communications system in order to achieve interoperability raises safety and cost considerations because of the additional space and weight requirements.[39] For these reasons, we decline to adopt a policy based on option two.

16. In order to best address our concerns about preserving the safety and reliability of aeronautical communications, we adopt the third option proposed in the *Aeronautical Services Reconsideration and Further Notice*. We will allow aircraft in international flight to use Inmarsat space segment in the L-band in U.S. airspace for AMS(R)S and AMSS. For the purposes of this Order, international flight is defined as: (1) an aircraft travelling between the United States and a foreign point or (2) an aircraft whose flight originates or terminates at a foreign point and lands at one or more points in the United States. As with provision of all service in the United States, use of Inmarsat space segment in the L-band must comply with priority and preemptive access requirements for aviation safety as established by the Commission and the ITU.[40]

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[36] See comments of Comsat at 3,5,10, and Exhibit 1.; ARINC at 6. AMSC has concluded that it would cost at least several million dollars for it to establish such compatibility. See Reply of AMSC at 7 n.10. See also footnote 25 supra.

[37] Reply of AMSC at FN 10.

[38] AMSC at 2.

[39] See footnote 25 supra.

[40] The order of priority for types of communications (such as safety and passenger correspondence) in the aeronautical mobile-satellite service is mandated by the International Telecommunication Union Radio Regulations, Article 51 (also called Article S44) (e.g., distress calls have highest priority followed by urgent calls). Because all types of communications are handled within the same spectrum, there exists the possibility that the entire capacity of the satellite system could be in use at the time that an AMS(R)S safety call is attempted. Given the time-critical nature of such communications, it is then necessary to provide for a preemption capability in order to facilitate immediate availability of the communication resources. Priority and preemption are required by ITU Radio Regulation S5.362A and in the U.S. in 47 C.F.R § 2.106 fn US308. Further in that regard, Aeronautical earth stations must comply with priority and preemptive access provisions of Section 87.187 of the Commission's rules

17. The primary purpose of the policy we adopt here is to ensure that aircraft do not experience any discontinuity of AMSS that might arise if such aircraft is not able to hand-off communications seamlessly from Inmarsat to a domestic provider of AMS(R)S or AMSS in the United States. This policy only applies to *aircraft* in international flight and does not apply to *passengers* who change planes in the United States and complete their international flight on a different aircraft.[41]

18. In addition, the use of Inmarsat space segment capacity is permitted only on those frequencies coordinated in the Mexico City Agreement and pursuant to subsequent international coordination agreements.[42] AMSC maintains that the frequency coordination process "remains unresolved" and that authorizing use of Inmarsat space segment in U.S. airspace "will have an impact on the amount of spectrum that is available for the U.S. MSS system."[43] Commenters contend that spectrum allocation issues have been resolved and that the current and the future impact of allowing the use of Inmarsat on spectrum use is minimal.[44]

19. In the *Aeronautical Services Reconsideration and Further Notice*, the Commission expressed concern that permitting Inmarsat to provide AMS(R)S and AMSS in the United States would result in claims for additional spectrum and possible interference to the AMSC system. Consequently, the Commission stated that it would limit the scope of Inmarsat service in the U.S. pending the outcome of the coordination process.[45] We believe that the arrangements agreed to in the Mexico City Agreement have sufficiently coordinated

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(47 C.F.R.§ 87.187). In the Upper L-band Notice we propose extension of the priority access and preemption standards and policies for mobile-satellite service to the lower L-band (1525-1544 MHz and 1626.5-1645.5 MHz). Upper L-band Notice at ¶25-27. See also AMSC at p.3.

[41] International air service, as defined in the Convention on International Civil Aviation of 1944, Article 96, is, "an air service which passes through the air space over the territory of more than one State."

[42] See Article 14 (also called S9) of the ITU Radio Regulations which requires that coordination for upper L-band spectrum be achieved through negotiations between parties (in the instant case, Inmarsat, AMSC, Canada, Mexico, and Russia).

[43] AMSC at p.1-2; Reply of AMSC at 4.

[44] See AlliedSignal at ¶3.3, 4.3; BT at p.3-4; Inmarsat at p.6; "[T]he amount of spectrum now used for domestic aeronautical service is small due to the availability of less expensive terrestrial aeronautical services" ARINC at p. 2; "Relatively few aircraft will use Inmarsat aeronautical services domestically even without a restriction." Comsat at p. 6, FN 7 and FN 8. See also Allied Signal at ¶4.3;

[45] *Aeronautical Services Reconsideration and Further Notice* at ¶18, 21 and 28.

use of the spectrum and that the Mexico City Agreement's annual usage review provisions will allow us to monitor closely the efficacy of the arrangements and the impact on L-band spectrum usage in the U.S. Further, the amount of spectrum that would be required for Inmarsat to provide AMS(R)S or AMSS in connection with international flights in the United States should be minimal given the limited number of aircraft in international flight operating within U.S. airspace. Consequently, our action here should have minimal impact on future year-to-year L-band coordination agreements. Nevertheless, our action in this Report and Order does not prejudge future international negotiations, nor how the Commission will assign L-band spectrum domestically in the pending *L-band Proceeding*.[46]

20. Finally, several commenters expressed confusion over our use of the term "U.S. earth station" in the *Aeronautical Services Reconsideration and Further Notice*.[47] We clarify for the record that the mobile earth stations at issue here are aircraft earth stations licensed by the U.S.[48]

B. Modified Authorization

21. Because the Inmarsat space segment at issue here will be used for international communications service, we will not require Comsat to waive its privileges and immunities in order to provide AMS(R)S and AMSS via Inmarsat to international flights as defined in this Report and Order.[49] Indeed, because of overriding safety concerns regarding on the ground or mid-air hand-off, we find that even if our definition of international service were challenged and it were ruled that the provision of AMS(R)S and AMSS on the "domestic leg" of an international flight (i.e., the flight segment between two domestic points that makes up part of an international flight) constituted "domestic service," we would nevertheless allow Comsat to provide AMS(R)S and AMSS on these flight segments. If Comsat wishes, however, to obtain permanent authorization to provide purely domestic AMS(R)S and/or AMSS on an ancillary and supportive basis using Inmarsat space segment capacity, it will be bound by the framework established in the *DISCO II Order* for the provision of domestic

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[46] See *L-band Proceeding* at footnote 5.

[47] See AlliedSignal at ¶6.3; Inmarsat at 15-16; BT at 6-7, footnote 15 and Reply of BT at 6. See also *Aeronautical Services Reconsideration and Further Notice* at ¶22.

[48] See 47 C.F.R. §87.5.

[49] See *DISCO II Order* at ¶109. See also *Aeronautical Services II* at FN 28 stating, in pertinent part, ". . . In the United States, we have generally authorized the use of Inmarsat facilities for communications that are international in character except in instances where use of Inmarsat for domestic communications fulfilled specific needs.. . ."

service and be required to waive its privileges and immunities.

22. We also reiterate the Commission policy, established in Section 87.187 and footnote 2.106 of our rules, that any use, international or domestic, of Inmarsat space segment in the U.S. is subject to priority and preemptive access requirements for aviation safety.

23. Accordingly, on the basis of the findings and conclusions in this proceeding, we modify Comsat's authority to provide AMS(R)S and AMSS via the Inmarsat system on an ancillary and supportive basis to aircraft during international flights in the U.S. as defined herein.

IV. CONCLUSION

24. The actions we take in this Order will provide continuity of service and uninterrupted access to the aeronautical mobile safety service and other communications services for aircraft equipped to access Inmarsat during international flights. Uninterrupted access to AMS(R)S and AMSS provides a vital public service for aircraft in international flight. In addition, since the L-band spectrum has been coordinated, there will be no negative impact on AMSC, the U.S. licensee.

V. ORDERING CLAUSES

25. Accordingly, IT IS ORDERED that Aeronautical Mobile-Satellite (Route) Service and Aeronautical Mobile-Satellite Service via the International Mobile Satellite Organization to *aircraft* in international flight in the United States shall be provided pursuant to the policy set out in this Report and Order. This policy applies to aircraft in international flight and does not apply to passengers who change planes in the United States and complete their international flight on a different aircraft. For purposes of this Report and Order, International flight shall be defined as: (1) an aircraft travelling between the United States and a foreign point; or (2) an aircraft whose flight originates or terminates at a foreign point and lands at one or more points in the United States.

26. IT IS FURTHER ORDERED that Comsat Corporation's authorization to provide AMS(R)S and AMSS via the Inmarsat system on an ancillary and supportive basis to aircraft during international flights in the U.S is modified to the extent described herein.

27. IT IS FURTHER ORDERED that service provided pursuant to this Order MUST COMPLY with Commission rules for priority and preemptive access set forth in Section 2.106 Footnote US308 of the Commission's rules, 47 C.F.R. §2.106 Footnote US308.

FEDERAL COMMUNICATIONS COMMISSION

Margalie Roman Salas
Secretary