Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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Federal Communications Commission
Office of Secretary

EXPEDITED ACTION REQUESTED

In the Matter of	)	
	)	
Aeronautical Radio Inc.	)	File No. 0029-EX-ML-2004,
	)	Call Sign WC2XPE
Experimental License Modification	)	
To Expand Limited Market Study	)	

To: Chief, Office of Engineering and Technology

INFORMAL OBJECTION OF THE BOEING COMPANY

The Boeing Company ("Boeing"),[1] pursuant to Section 1.41 of the Commission's Rules, 47 C.F.R. § 1.41, hereby files this Informal Objection[2] to the license modification granted to Aeronautical Radio Inc. ("ARINC") that significantly expands the experimental operations of the SKYLink℠ system, a proposed Ku-band Aeronautical Mobile-Satellite Service ("AMSS") system.[3] Contrary to ARINC's application, the expansion of this experimental authorization from 15 to 120 aircraft and to allow it for the first time to charge customers for SKYLink℠ service is not the type of "limited market study" sanctioned by the Commission's Rules.

[1] Boeing is the licensee of the Connexion by Boeing℠ system, the first system licensed by the Commission to provide broadband AMSS services on a commercial basis in the Ku-band.

[2] This pleading is styled as an informal objection rather than a formal petition for reconsideration pursuant to guidance from the staff and the Commission's stated preference for the use of informal procedures in the context of experimental licensing. *See* Amendment of Part 5 of the Commission's Rules to Require Electronic Filing of Applications for Experimental Radio Licenses and Authorizations, *Order*, FCC 03-207 (rel. Aug. 20, 2003) at ¶ 6.

[3] *See* Aeronautical Radio Inc., Experimental Radio Station Authorization, File No. 0029-EX-ML-2004, Call Sign WC2XPE (eff. June 16, 2004) ("*ARINC June 2004 Experimental License*"). Grant of the ARINC experimental license modification has not been placed on public notice. *See* Public Notice, Experimental Actions, Report No. 369 (rel. Aug. 3, 2004) (covering experimental applications granted from 6/1/04 to 7/1/04).

The provision of AMSS service on a commercial basis to up to 120 aircraft cannot accurately be characterized as a "limited market study" and circumvents the Commission's normal licensing requirements for starting commercial operations. Accordingly, Boeing requests that the Commission immediately reduce the number of SKYLink[SM] terminals that ARINC may operate and charge for service to the 15 permitted under ARINC's prior experimental license.[4] In addition, given ARINC's own public announcements regarding the launch of the SKYLink[SM] service, ARINC should confirm that it otherwise remains in compliance with its experimental license and the Commission's Rules. Because this Informal Objection relates to ongoing operations under ARINC's experimental license, which expires on November 1, 2004 but may be renewed, expedited action is requested.

I. EXPANSION OF A "LIMITED MARKET STUDY" TO 120 AIRCRAFT CIRCUMVENTS THE COMMISSION'S LICENSING RULES

The Commission recently authorized ARINC to expand its previous limited market study from 15 to 120 aircraft and to allow it to charge customers for SKYLink[SM] service. The provision of AMSS service to such a large number of aircraft circumvents the Commission's traditional licensing process (which, in ARINC's case, remains ongoing due to unresolved technical questions regarding the SKYLink[SM] system) by enabling ARINC to operate commercially and serve a significant percentage of the addressable business aircraft market without a regular license. Thus, ARINC's "limited market study" is fundamentally inconsistent with the rules and policies governing experimental licenses, and the Commission should immediately reduce the number of aircraft that may participate in ARINC's market study to 15 --

[4] Section 5.83(b) of the Rules, 47 C.F.R. § 5.83(b), provides that experimental licenses are "subject to change or cancellation by the Commission at any time without hearing if in its discretion the need for such action arises."

the number of aircraft authorized under ARINC's prior experimental license and for which ARINC previously committed not to charge for service.[5]

ARINC claimed in its experimental modification request that it needs Commission authority to conduct a limited market study of 120 aircraft "to determine whether there is a viable market for the service."[6] However, confirming the economic viability of a service is not a basis upon which the Commission may authorize experimental licensees to conduct limited market studies. Rather, in deciding to permit limited market studies under experimental authority, the Commission explained that such studies must be "appropriate to the nature of the service provided and not larger than necessary to adequately examine market responses and technology performance under market conditions."[7]

ARINC's provision of service to up to 120 business aircraft is in no way appropriate to the nature of the service to be provided and is far larger than necessary to examine market responses and the performance of the SKYLink℠ system. Indeed, 120 aircraft constitute more than 10% of the total number of AESs that ARINC seeks to operate on a regular commercial basis, and more than 5% of the entire business aviation market – a significant *market share* rather than a "limited market study."[8] ARINC plainly can study service pricing and technology performance issues with a much smaller fraction of the paying customers it has sought to enlist. Notably, the Commission previously limited the permissible scope of ARINC's prior market

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[5] *See* Aeronautical Radio Inc., Experimental Radio Station Authorization, File No. 0029-EX-ML-2003, Call Sign WC2XPE (eff. June 3, 2003); *see also* Application for *ARINC June 2004 Experimental License*, Exh. 1, Narrative Statement at 1.

[6] *See* Application for *ARINC June 2004 Experimental License*, Exh. 1, Narrative Statement at 1.

[7] Amendment of Part 5 of the Commission's Rules to Revise the Experimental Radio Service Regulations, 13 FCC Rcd 21391 (1998) at ¶ 23 ("*1998 Experimental Rules Order*").

[8] Boeing estimates the current addressable business aviation market for broadband AMSS to be on the order of 2,300 – 2,400 aircraft.

study to 15 aircraft;[9] and ARINC's prior authority for 15 aircraft substantially exceeds the scope of Boeing's own limited study of the commercial aviation market, which was conducted using only 10 Connexion AESs[10] for a market that is many times larger than the business aviation market.[11]

ARINC's business activities and public announcements regarding the SKYLink^{SM} service also belie any claim that it needs to determine whether there is a viable market for AMSS service (even if this were an appropriate basis for limited market study authority). ARINC has announced that it is already actively marketing the SKYLink^{SM} service, began customer installations and launched SKYLink^{SM} service in the United States, and implemented full SKYLink^{SM} satellite coverage over North America.[12] There is no doubt that ARINC believes that there already is a viable market for the SKYLink^{SM} service, at least for business aircraft.[13]

Boeing does not object to ARINC conducting an appropriately sized market study or charging for service in the context of such a study. However, the substantial expansion of ARINC's previous limited market study from 15 to 120 aircraft is fundamentally inconsistent

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[9] *See* Aeronautical Radio Inc., Experimental Radio Station Authorization, File No. 0029-EX-ML-2003, Call Sign WC2XPE (eff. June 3, 2003).

[10] *See* The Boeing Company, Experimental Radio Station Authorization, File No. 0032-EX-ML-2002, Call Sign WC2XVE (eff. Oct. 3, 2002). A subsequent modification added authority to operate 10 reflector antenna AESs. *See* The Boeing Company, Experimental Radio Station Authorization, File No. 0038-EX-ML-2003, Call Sign WC2XVE (eff. Aug. 18, 2003).

[11] Boeing estimates the addressable commercial aviation market to be upwards of 10,000 aircraft.

[12] *See infra* at 5-6.

[13] ARINC also plans to demonstrate a new Commercial SKYLink^{SM} system aimed at commercial airlines at the World Airline Entertainment Association ("WAEA") conference to be held in Seattle, Washington from September 21-24, 2004. *See* ARINC Press Release, *ARINC Will Show New Broadband Internet Solution for Commercial Aircraft at WAEA* (Aug. 24, 2004) (available at <http://www.arinc.com/ news/2004/08-24-04.html>).

with the Commission's experimental licensing rules and policies, and circumvents the Commission's traditional licensing requirements. Accordingly, the Commission should limit the number of aircraft in ARINC's limited market study to the 15 previously authorized.

II. ARINC SHOULD CONFIRM THAT ITS COMMERCIAL ACTIVITIES ARE CONSISTENT WITH ITS EXPERIMENTAL LICENSE AND THE COMMISSION'S RULES

While Boeing would expect ARINC's commercial operations to be consistent with the experimental nature of the SKYLink℠ service, a review of ARINC's press releases and related news items over the past two years suggests that ARINC may have already launched the SKYLink℠ service commercially in a manner that is inconsistent with the Commission's Rules and the conditions of its experimental license. In particular, it is difficult to reconcile ARINC's public announcements regarding SKYLink℠ equipment sales and launch of service in the United States with the requirements to maintain ownership of SKYLink℠ equipment and to explicitly notify customers that the service is experimental and may be cancelled at any time.

In September 2002, ARINC "announced that Gulfstream Aerospace Corporation has contracted *to purchase* ARINC's SKYLink℠ in-flight broadband system for installation on Gulfstream corporate jets."[14] In June 2003, ARINC announced that it "will be launching the SKYLink service in the 4th quarter of 2003;"[15] and, in October 2003, ARINC confirmed that

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[14] *See* ARINC Press Release, *ARINC's SKYLink Broadband System To Take Flight with Gulfstream Aerospace* (Sept. 11, 2002) (available at <http://www.arinc.com/news/2002/09-11-02.html>) (emphasis added). At that time, Gulfstream ordered 40 SKYLink℠ AESs and associated equipment. *See* NBAA Convention News, *Gulfstream orders Arinc's broadband* (Sept. 2002) available at <http://www.ainonline.com/Publications/nbaa/NBAA_02/nbaad3_02_gulfstreampg46.html>.

[15] *See* ARINC Press Release, *ARINC Launches New Broadband, Satellite Services Operation* (June 12, 2003) (available at <http://www.arinc.com/news/2003/06-13-03.html>).

" '[w]e expect to complete our first customer installation later this month, and we'll launch full SKYLink service coverage of the continental United States at that time."[16] ARINC further stated that "SKYLink Broadband Service and SKYLink hardware will be offered by manufacturers as a factory option on new aircraft. In addition, ARINC Direct will work with aircraft owners, manufacturers and completion centers to retrofit SKYLink on in service aircraft;"[17] and that it "actively markets SKYLink through the one-year-old ARINC Direct business unit focused on business aviation."[18] More recently, ARINC stated that "SKYLink satellite coverage went live over North America in April 2004, and SKYLink-equipped business jets now have 2-way broadband connectivity from coast to coast."[19]

Although the underlying facts are not fully disclosed in ARINC's press releases, the purchase of SKYLink^{SM} equipment by aircraft manufacturers that are offering SKYLink^{SM} equipment and service to business jet customers and the nationwide launch of the SKYLink^{SM} service are indicative of actual commercial operations, which are inconsistent with the rules and policies governing experimental licenses.[20] Furthermore, the terms of ARINC's existing experimental authorization explicitly require that ARINC maintain ownership of all SKYLink^{SM} equipment and inform customers that the SKYLink^{SM} service is for experimental purposes only

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[16] *See* ARINC Press Release, *SKYLink^{SM} by ARINC Direct^{SM} Enters Production -- First Satellite Broadband for Business Aircraft* (Oct. 6, 2003) (available at <http://www.arinc.com/news/2003/10-06b-03.html>).

[17] *Id.*

[18] *See* ARINC Press Release, *ARINC Captures Major Share of World Aviation SATCOM Market in 2003* (Jan. 30, 2004) (available at <http://www.arinc.com/news/2004/01-30-04.html>).

[19] *See* ARINC Press Release, *ARINC Will Show New Broadband Internet Solution for Commercial Aircraft at WAEA* (Aug. 24, 2004) (available at <http://www.arinc.com/news/2004/08-24-04.html>).

[20] *See generally* 47 C.F.R. Part 5; *see also 1998 Experimental Rules Order* at ¶¶ 18-23.

and can be cancelled at any time.[21] Given ARINC's public announcements, it is not at all clear that ARINC is adhering to these conditions.

In adopting rules and policies to permit limited market studies under experimental authority, the Commission observed:

> . . . in some instances its experimental processes have been abused by companies attempting to establish under the guise of experimental licenses commercial businesses that would normally require permanent licenses. Such abuse can be particularly unfair when a commercial business is being provided under an experimental license in competition with a similar business provided under a permanent license.[22]

The same concerns are implicated here. ARINC seeks to operate the SKYLink[SM] system on a commercial basis with up to 120 aircraft under the guise of its expanded experimental authority and has already announced the launch of the SKYLink[SM] service. This is precisely the type of circumstance that the Commission's experimental licensing rules and policies are designed to prevent. Indeed, this case is especially troubling given the significant technical issues that remain at issue concerning ARINC's pending application for a regular license.[23]

Accordingly, ARINC should confirm that its commercial activities relating to the SKYLink[SM] service are fully consistent with the Commission's rules and the terms of its experimental license, including the requirement to maintain ownership of all SKYLink[SM]

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[21] *See ARINC June 2004 Experimental License* at Special Conditions 3, 4; *see also* 47 C.F.R. § 5.93(a) (equipment ownership requirement). The Commission requires experimental licensees to maintain ownership of equipment used in limited market studies because, among other things, "such equipment sales may result in initiation of a service which, in turn, may compete unfairly with regularly licensed services and which consumers may mistakenly regard as a fully-licensed, permanent service." *1998 Experimental Rules Order* at ¶ 23.

[22] *1998 Experimental Rules Order* at ¶ 23.

[23] *See generally* Boeing submissions in earth station application docket File Nos. SES-LIC-20030910-01261 and SES-AMD-20031223-01869, Call Sign E030205, which are hereby incorporated by reference. The unresolved technical issues associated with the SKYLink system's operations constitute a separate basis for limiting ARINC's experimental authority.

equipment and notify customers that service is for experimental purposes only and can be cancelled at any time.

III. CONCLUSION

Given the inappropriately large "limited market study" that ARINC seeks to conduct under experimental authority, and the significant questions raised by ARINC's own public announcements, the Commission should immediately exercise its authority under Section 5.83(b) of the Rules to limit ARINC's market study to 15 total aircraft, and require ARINC to confirm that its commercial activities comply with the conditions of its experimental license and the Commission's Rules.

Respectfully submitted,

THE BOEING COMPANY

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CERTIFICATE OF SERVICE

I, Joan Casey, hereby certify that a copy of the foregoing Informal Objection of The Boeing Company was served via first-class mail, postage prepaid, upon the following:

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