

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

In the Matter of)	
)	
Revisions to Parts 2 and 25 of the Commission’s Rules to Govern the Use Of Earth Stations Aboard Aircraft Communicating with Fixed-Satellite Service Geostationary-Orbit Space Stations Operating in the 10.95-11.2 GHz, 11.45-11.7 GHz, 11.7-12.2 GHz and 14.0-14.5 GHz Frequency Bands)	IB Docket No. 12- 376
)	
)	

To the Commission:

Comments of Nickolaus E. Leggett, Inventor, and Analyst

I am a certified electronics technician (ISCET and iNARTE) and an Extra Class amateur radio operator (call sign N3NL). I hold an FCC General Radiotelephone Operator License with a Ship Radar Endorsement. I am an inventor holding three U.S. Patents. My latest patent is a wireless bus for digital devices and computers (U.S. Patent # 6,771,935). I have a Master of Arts degree in Political Science from the Johns Hopkins University. I am also a licensed pilot of single-engine airplanes, gliders (sailplanes), and hot air balloons.

I am one of the original petitioners for the establishment of the Low Power FM (LPFM) radio broadcasting service (RM-9208 July 7, 1997 subsequently included in MM Docket 99-25). I am also one of the petitioners in the docket to establish a low power radio service on the AM broadcast band (RM-11287). I have filed a total of over 200 formal comments with the FCC over the years since the 1970s. I have filed comments with other Federal agencies as well including the USPTO, FAA, FERC, EPA, and the TSA.

Earth Stations Aboard Aircraft (ESAA)

In Paragraph 5, the Commission states that the Earth Stations Aboard Aircraft (ESAA) “will allow licensees to bring broadband service to an underserved sector: passengers and crew aboard aircraft in flight”.

The Commission should be very cautious about promoting this technology. It is important to make sure that no hackers, saboteurs, or terrorists can access the safety-of-flight electronics through this passenger cabin Internet service. All of the safety-of-flight electronics must be unreachable from the Internet.

Information technology (IT) professionals have informed me that no firewall system can provide this isolation of the safety-of-flight electronics from an Internet connection. As a result of this, there should not be shared crew and passenger Internet access in the aircraft. There must be no physical access between aircraft electronics and the Internet service provided in the aircraft’s passenger cabin.

Passenger Behavior

The ESAA service will allow passengers to operate Voice Over Internet Protocol (VOIP) telephones over their Internet connections. This will allow a situation similar to that with cell phones enabled in the aircraft. In addition, the passengers will be able to stream numerous audio and video programs into the passenger cabin.

Many passengers will react poorly to being exposed to large numbers of passengers speaking loudly into their VOIP telephones for hours at a time. Stress and tensions will increase and some disruptions and even violence will at times occur. Many passengers will be less likely to obey the instructions of the cabin attendants.

Passengers with a criminal or hostile intent will find the VOIP telephones convenient for their activities.

Allowing numerous telephone calls and audio downloads in the passenger cabin is not a constructive idea.

Liability and Privacy Issues

Commission attorneys should examine the potential liability aspects of passenger telephone calls and Internet communications. Will the airlines be liable for proprietary information stolen from in-flight communications sessions? Will industrial spies and foreign intelligence agents fly as passengers carrying equipment to sweep up the information being transmitted through the cabin? Who will be responsible for passenger misbehavior stimulated by the cabin environment?

Requested Actions

The Commission should act to prevent any access between the passenger cabin Internet service and the safety-of-flight communications and electronics. The Commission should also devote more study to the behavioral problems induced by continuous loud chatter in an already loud aircraft cabin.

Respectfully submitted,

**Nickolaus E. Leggett
1432 Northgate Square, #2A
Reston, VA 20190-3748
(703) 709-0752
leggett3@gmail.com**

January 4, 2013