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October 8, 2004

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VIA ELECTRONIC FILING

Marlene H. Dortch, Esq.
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: ET Docket No. 04-37 – ***Ex Parte Notice***

Dear Ms. Dortch:

On October 7, 2004, John Bartlett of this firm, and I met with Sheryl Wilkerson, Legal Advisor to Chairman Michael Powell, and Bruce Franca, Deputy Chief of the Office of Engineering and Technology, to discuss the concerns that ARINC (Aeronautical Radio Incorporated) has raised in this proceeding regarding the possibility for interference to air traffic control (ATC) and aeronautical operational control (AOC) communications from broadband over power line systems operating on the Aeronautical Mobile(R) high frequencies.

We noted that the ARINC HF network provides ATC communications for the FAA and AOC for the airlines and other aircraft operators. Each month the network handles some 200,000 messages. Emergencies are handled about ten times per week. About 80% of the traffic is ATC. The ATC communications are conducted using voice as are some of the AOC communications. In addition, nonvoice data mode is also used for AOC operations. Aircraft transmissions are conducted with 100 to 400 watts of power coupled into inefficient antennas. This often produces very weak signals at ground stations. Accordingly, we explained that the ARINC radio operators handle the ATC and AOC traffic and that these trained operators routinely receive messages that are at or below the noise floor. Thus, ATC and AOC communications are highly dependent on the maintenance of a low noise environment, which could be compromised by BPL operations.

In addition, we explained that ARINC has received harmful interference to reception on 3013 kHz at its Half Moon Bay, California, receiving site from what are believed to be Part 15 power line carrier devices. This interference, which has forced ARINC to abandon use of this frequency at the site, has been under investigation for months by the FCC. We urged that the Aeronautical Mobile (R) frequencies, which constitute less than five percent of the HF band, not be used for BPL operations unless and until experience has demonstrated that operations can be

carried out without interference. If the Commission moves forward with allowing BPL operations in this safety service, we urged that it require prior coordination with ARINC for BPL operations within 15 miles of the ARINC HF receiving facilities and that BPL operators be required to provide a point of contact for safety service licensees to communicate with in order that interference might be resolved expeditiously.

Copies of the materials supplied during the meeting are attached.

Respectfully,

David E. Hilliard

David E. Hilliard
Counsel for ARINC

Attachments
cc: Sheryl Wilkerson, Esq.
Mr. Franca

ARINC Air/Ground International LDOC HF Radio Service

What Is Air/Ground International?

ARINC's Air/Ground International radio service provides high frequency (HF) single side band aeronautical operational control (AOC) voice communications for aircraft flying over the Atlantic and Pacific Oceans, Caribbean, Gulf of Mexico, and Central and South America. ARINC connects far-reaching corners of the world to one of two HF Long Distance Operational Control (LDOC) Facilities located in New York and San Francisco. The New York facility extends coverage east toward Europe and Africa and south toward Central and South America. The San Francisco facility provides coverage north to Alaska, west to Russia, and south to Australia and South America.

Very high frequency (VHF) voice communications are also available at oceanic gateways along the east, west, and Gulf coasts and Hawaii. They are used to augment the HF service until the aircraft is no longer in range of the VHF ground stations.

Service Benefits

The ARINC Air/Ground International Service offers an array of benefits including:

- No start-up fee to join the service
- Around-the-clock availability
- Current weather and forecast data, available for virtually any location

The Air/Ground International service can be used to:

- Make ground arrangements. Corporate jets can use a phone patch to contact a fixed-base operator to make arrival arrangements such as aircraft servicing and equipment needs.
- Coordinate flight and ground activities. Airlines use the service to help control and track arrival times so that ground operations can be handled expeditiously.
- React quickly to changes. Dispatch can divert an aircraft from its flight plan to pick up unscheduled passengers/freight.
- Handle irregular operations. Pilots use the service to resolve fuel situations with dispatch when the aircraft experiences weather-induced irregular operations.

COMMUNICATIONS IN FIRs

ARINC also provides air traffic control radio communications services for aircraft flying in United States flight information regions (FIRs). ARINC's Communications Centers relay ATC flight movement messages for the Federal Aviation Administration (FAA) while the aircraft is flying in oceanic regions under FAA jurisdiction. In addition, ARINC can transmit the same messages to customer designations to ensure the company is advised for flight-following purposes. ARINC provides the only HF communications link to the FAA in those international areas for which the FAA has control.

ARINC Communications Centers Provide Global Coverage

- Stay in touch while aloft. When in U.S. FIRs, aircraft can be contacted by ARINC radio operators and advised to activate an LDOC frequency. This eliminates the need for aircrews to monitor LDOC frequencies.
- Inform dispatch of important events.
- Provide emergency communications.

Message Delivery Options

ARINC offers many ways to deliver messages to meet individual needs. Air/Ground International radio operators can:

- Send transcribed messages to any ARINC Data Network Service (ADNS) teletype subscriber or any International Civil Aviation Organization (ICAO) address worldwide.
- Deliver messages by telephone.
- Provide a phone patch to any phone number while the aircraft is en route.
- Deliver ground-originated calls to the aircraft.
- Signal the aircraft's Selective Calling System (SELCAL), if equipped, that a message is incoming so the pilot need not monitor the frequency.

ARINC maintains a 30-day tape recording of all conversations should an after-the-fact analysis be required.

Contact Frequencies

ARINC Station Location and Call Sign	HF SSB LDOC Facilities Frequencies Guarded (kHz)								
	3013	3494	6640	8933	11342	13330	13348	17925	21964
San Francisco	X		X		X		X	X	X
New York		X	X	X	X	X		X	

LDOC frequencies are monitored 24 hours a day

Unparalleled Quality

ARINC has established stringent performance goals for all of its services. Performance is continually measured on all systems against those goals, and the results are published regularly. These reports are readily available to all ARINC customers.

ARINC's demanding quality control program ensures that the Air/Ground International Service meets and exceeds stringent Federal communications regulations. The entire system is monitored 24 hours per day from each Communications Center to ensure all equipment is functioning properly. In addition, ARINC strives for zero operational errors. These significant goals ensure that messages are delivered on time and error free.

ARINC's Experience

ARINC was founded in 1929 to provide reliable and efficient aeronautical radio communications and first began offering HF voice communications services for the aviation community in 1938. Today, ARINC handles the communications needs of all aircraft from the smallest business aircraft to the largest commercial air transport aircraft.

Air/Ground International's experienced radio operators are the industry's only operators who routinely handle air traffic control messages for the FAA. This staff of 120 operators handles an average of 210,000 routine and special situation messages each month from the ARINC Communications Centers, with capacity to handle many more.

ARINC

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ARINC develops and operates communications and information processing systems for the aviation and travel industries and provides systems engineering and integration solutions to the government and industry. Founded in 1929 to provide reliable and efficient radio communications for the airlines, ARINC is headquartered in Annapolis, Maryland, USA, and has over 50 locations worldwide, including San Francisco, London, Bangkok, and Beijing.

99-205134M-1

ARINC

GLOBALink℠/HF

Long-Range Air/Ground Data Link

ALL aircraft operators can now obtain the benefits of data link while operating in oceanic, polar, and remote land regions. ARINC is the only service provider to offer global communications service via high frequency data link.

GLOBALink/HF features:

- Coverage in polar regions. It extends the capabilities of VHF and satellite by providing continuous en route coverage.
- Low-cost HF data link avionics combined with service costs comparable to satellite
- A natural complement to satellite data link

HF data link and satellite used together meet the high availability required for future Communications, Navigation, and Surveillance/Air Traffic Management (CNS/ATM) communication. Since satellite and HF data link use different radio avionics, propagation paths, and ground stations, the systems are highly independent.

GLOBALink/HF Coverage – 2000

Worldwide Access to Operations and Air Traffic Control Centers

The full range of Aircraft Communications Addressing and Reporting System (ACARS) applications is available over GLOBALink/HF. Critical information such as weather data, flight plans, redispatch, and Notices to Airmen (NOTAMs) are required for oceanic aircraft and Extended Twin-Engine Operations (ETOPs). GLOBALink/HF simplifies this information exchange and eliminates the need for the crew to listen to and copy voice messages.

GLOBALink/HF requires no change in ACARS procedures, labels, routing, or message format. There is minimal impact on crew training or system operations.

Improved Accuracy and Timeliness

GLOBALink/HF ensures that your aircraft receives operational communications in an accurate and timely manner. A message transmitted by voice may take minutes to transmit; in contrast, GLOBALink/HF can transmit it in seconds without crew intervention. Human transcription errors and language barriers are practically eliminated with GLOBALink/HF. In addition, messages sent via data link cost far less than equivalent voice messages.

The service accommodates new features and benefits that are simply not possible with HF voice, such as en route upload and reprogramming of new or revised flight plans into the aircraft flight management computer (FMC) and oceanic en route downlinking of engine data.

Maintenance Data Reporting During Flight

GLOBALink/HF allows trouble reports to be transmitted during the flight. Maintenance engineers can order parts and prepare for required maintenance before the aircraft lands, resulting in reduced aircraft downtime. The timely determination of equipment problem severity while the aircraft is still in the air can avoid a maintenance-related diversion. Avoiding a single diversion can easily save a customer more money than the cost of HF data link avionics.

CNS/ATM Benefits

As with all of ARINC's data link services, GLOBALink/HF provides a transition path to the Aeronautical Telecommunication Network (ATN) and access to the benefits of ATM as they are authorized by civil aviation authorities (CAAs) worldwide.

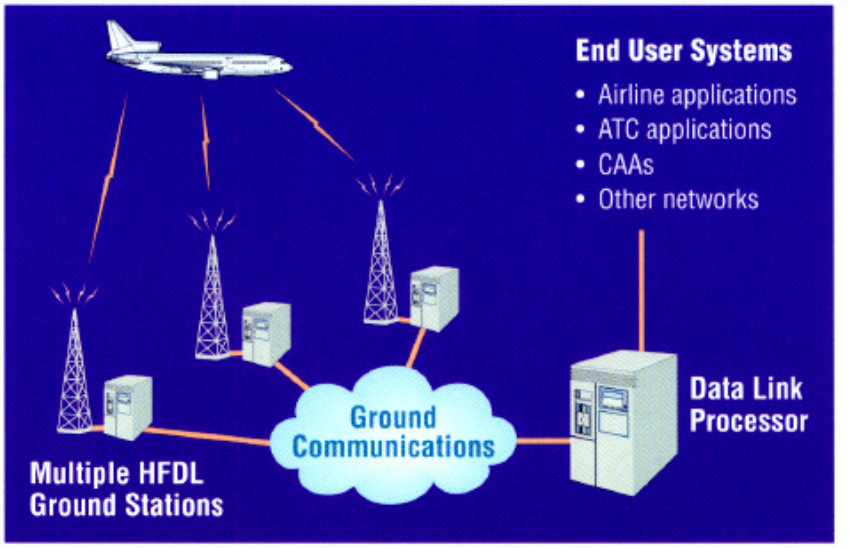
COMPLETE ARCTIC COVERAGE

Data link will be essential for aircraft to take full advantage of ATC automation and its associated benefits. GLOBALink/HF provides a cost-effective means for aircraft to realize operational benefits such as user-preferred routes and cruise climbs derived from CNS/ATM.

GLOBALink/HF Is Easy to Operate Anywhere in the World

GLOBALink/HF is part of ARINC's global, seamless data link system. Aircraft can fly worldwide and remain connected to ARINC's high-quality data link services.

- ***Automatic and seamless transition among the available VHF, satellite, and HF data links.***
- ***Fully automatic frequency search/acquisition, log on, and log off.*** This greatly simplifies flight crew and ground controller operation, improving the safety and efficiency of flight.
- ***GLOBALink/HF can reuse the aircraft's existing HF radios and ACARS management unit.*** Digital HF voice/data technology can be incorporated in existing radios on new and retrofit aircraft.
- ***Advanced digital signal processing techniques.*** Multipath effects, impulse noise, fading, and static noise often associated with HF voice are minimized. HF data link has proved effective even when HF voice is unusable.
- ***Global availability.*** Strategically located ground stations provide high availability global air/ground data link communications. Data link messages generated by aircraft are received by an HF ground station and are transmitted to a data link processor for format conversion, routing, and distribution to airline host processing systems and to ATC centers around the world. Messages originated on the ground are sent to the data link processor and are transmitted to the appropriate ground stations for uplink to the aircraft. Installations are under way to provide service for all major air traffic routes. Coverage areas will include oceanic and remote land areas, including polar regions, where satellite communications may not be available. Global availability will mean that aircraft equipped with HF data link will not experience operational delays due to gaps in coverage.



GLOBALink/HF System Components

Lower Operating Costs and Greater Revenue

GLOBALink/HF opens the door to benefits previously unavailable to aircraft without satellite communications. Data link reduces costs through more efficient routing and lower aircraft operating costs. Instead of extra fuel reserves, the aircraft can carry revenue-generating passengers and freight.

ARINC

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