February 25, 2004

Office of the Secretary
Federal Communications Commission
445 Twelfth St., SW, TW-325
Washington, D.C. 20554

RE: COMMENT ON MARITIEL, INC. PROPOSAL FOR SHARED USE OF MARITIME VHF CHANNELS 87B AND 88B FOR AUTOMATIC IDENTIFICATION SYSTEMS.

The American Pilots' Association urges the Federal Communications Commission to reject the MariTel, Inc. and to grant the Petition for Rulemaking[1] submitted by the National Telecommunications and Information Administration to allocate the VHF frequencies 161.975 MHz (Channel 87B) and 162.025 MHz (Channel 88B) for government and non-government use on a shared basis nationwide for Automatic Identification Systems (AIS) exclusively.

The APA is the national trade association of professional maritime pilots. Its membership is made up of approximately 60 groups of state-licensed pilots, comprising virtually all state pilots in the country, as well as the three groups of United States-registered pilots operating in the Great Lakes. APA members pilot over 95 percent of all international trade vessels moving in U.S. waters.

The Federal Government should ensure that AIS technology is reserved for its highest and best public use: navigation safety and maritime security.

The APA has been a long-time champion of Automatic Identification System (AIS) because of the technology's potential benefit to navigation safety. A number of APA pilot groups including the Tampa Bay Pilots, Pilots' Association for the Bay and River Delaware, Crescent

[1] Letter dated October 24, 2003 from Frederick R. Wentland, Associate Administrator, Office of Spectrum Management, NTIA to John Muleta, Chief, Wireless Telecommunications Bureau, RM-10821.

River Port Pilots' Association, the Columbia River Pilots, and the Southeast Alaska Pilots' Association have considerable operational experience with AIS. In addition, the APA was one of the primary stakeholders in the Coast Guard-sponsored National Dialog Group on Vessel Traffic Service (VTS) systems under the auspices of the Marine Board of the National Research Board in 1999. Much of the Group's work focused on AIS.

Conclusions from the National Dialog Group incorporated in the NRC's 1999 publication, "Applying Advanced Information Systems to Ports and Waterways Management," included the following endorsement:

> **Dialog participants strongly endorse the widespread use of Automatic Identification Systems (AIS) employing Differential Global Positioning System (DGPS) and onboard transponder technologies. These technologies provide a foundation for effective navigation safety, both within and outside areas where VTS systems are determined to be necessary. They also provide for improved vessel-to-vessel information exchange in ports and waterways in which no VTS system is established.**
>
> **<u>Dialog participants believe that national use of AIS technology on the greatest number of vessels is essential both as a foundation of a VTS system, where such a system is necessary, and as the basis for improving navigation safety</u>. Dialog participants strongly urge the USCG to take the lead both domestically and internationally in developing equipment and procedural standards that will promote <u>universal use of AIS technology</u>. Although port conditions and use/stakeholder needs may favor the establishment of VTS systems in selected ports, dialog participants believe that <u>widespread use of AIS can serve as an effective navigation safety system</u>.** (Emphasis added).

Beyond the work of the National Dialog Group and Marine Board study, the APA has been active on the U.S. Delegation to IMO and has monitored with interest other international efforts to further universal AIS undertaken by such bodies as the ITU, IEC and IALA-AISM.

The IMO Performance Standards for AIS [IMO Resolution MSC.74(69)] (IMO 2002b) require that the systems be capable of functioning

- In the ship-to-ship mode, to assist in collision avoidance;
- In the ship-to-shore mode, as a means for littoral states to obtain information about a ship and its cargo; and
- In the ship-to-shore mode, as a vessel traffic service (VTS) tool.

"The three identified functions set the boundaries for AIS functionality. In general, AIS provides a means of exchanging a <u>precisely defined range of data</u> between ships, and between ships and shore facilities under the oversight of "competent authorities." It is not, for example, a precision navigation device itself but a tool for exchanging navigation and other data. <u>Nor is it a general correspondence messaging system</u>."[2] (Emphasis added).

[2] "Shipboard Automatic Identification System Displays: Meeting the Needs of Mariners," Transportation Research Board, Special Report 273, Page 18.

AIS technology is robust, but its capacity is not limitless.

At every opportunity, the American Pilots' Association strenuously advocates for AIS technology to be implemented for its designed purpose—to communicate operations-critical navigation safety data. Other uses, for example MariTel's ill-advised "channel loading and slot sharing" proposal will unavoidably degrade AIS capacity. The APA is encouraged by the similar concerns voiced in this docket by other organizations with technical expertise.

The Transportation Research Board cautioned, "The available system capacity for transmitting messages of varying priority and time sensitivity is another factor that may need attention in the overall AIS context because of its effect on shipboard displays. Although AIS has substantial messaging capability, it is not infinite, and the shore-based infrastructure needs to be designed to match traffic volume, message demands, and messaging priorities."[3]

The Radio Technical Commission for Maritime Services commented, "Ships from all over the world call at U.S. ports and sail through U.S. waters, and will be equipped with AIS systems that will default to operation on Channels 87B and 88B. They must be able to function in the national AIS system as seamlessly as possible, and the necessity to switch to other channels would raise needless complexity and compatibility issues."[4]

The National Marine Electronics Association stated, "AIS is an essential safety tool for inter-ship navigation and collision avoidance and as such it is imperative that AIS transmissions be consistently broadcast on universally designated channels. The necessity to have standard interoperability is imperative for safety."[5]

Similarly, Lockheed Martin cautioned, "Without full and constant access to these channels, AIS operations could result, for example, in transiting ships disappearing from the screens of the vessel traffic management systems, as well as from the screens of the AIS receivers locate on the bridges of vessels in busy waterways."[6]

MariTel's proposed exclusive control is inappropriate and unworkable.

The APA strongly opposes MariTel's request to be designated the exclusive "frequency coordinator" for AIS. The APA feels that designation of a for-profit frequency coordinator for AIS is both inappropriate and unworkable. Further, the MariTel proposed fees for initial MMSI number registration of $300-$375 and $75 annual renewal are alarming, especially when compared to existing services which, in at least two instances, are provided free of charge. There is simply no value added in MariTel's proposal.

In addition to significantly enhancing navigation safety and efficiency, AIS technology promises to provide vital national security benefits. AIS has the potential to become a powerful new technology that can be added to existing sensors to enhance maritime domain awareness.

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[3] "Shipboard Automatic Identification System Displays: Meeting the Needs of Mariners," Transportation Research Board, Special Report 273, Page 151.
[4] Radio Technical Commission for Maritime Services Comment, RM-10821.
[5] National Marine Electronics Association Comment, RM-10821.
[6] Lockheed Martin Corporation Comment, Page5, RM-10821.

Numerous vulnerability assessments have highlighted the critical importance and vulnerability of our maritime transportation system. Achieving greater maritime domain awareness has become a national priority for the Coast Guard and the Department of Homeland Security.

MariTel's demand that only the Coast Guard be allowed to receive AIS data is patently ridiculous. While there is clear intent for a "Competent Authority" (i.e., the United States Coast Guard) to play a central role in the administration of AIS, other Federal and non-federal entities need access to AIS information for the system to provide its intended navigation safety and homeland security benefits. The Department of Homeland Security and the Coast Guard recognize that available federal funding will be insufficient to build out critical shore-side AIS infrastructure necessary to achieve the desired maritime domain awareness within a reasonable amount of time. The federal government has embraced the idea of leveraging federal dollars with private investment. This is approach is evidenced by the recent federal grants distributed by the Transportation Security Administration to private organizations such as port authorities and maritime exchanges to partially fund Vessel Traffic Information Systems. MariTel's claims stand in the way of our nation's ability to implement this important system in a timely fashion.

The FCC needs to resolve this dispute now.

This frequency dispute is having a chilling effect on private investment and the timely implementation of a viable nationwide AIS system. Further, it is embarrassing the United States' leadership in international maritime security initiatives. None of the many alternative MariTel proposals have merit. "[T]here is no practical plan to transition to a different frequency for AIS operations, other than 87B and 88B, without negative consequences to maritime safety and homeland security. The U.S. Government would also have to expend considerable time, money, and resources to implement a new plan, assuming one is possible."[7]

The American Pilots' Association fully supports NTIA's concern that, "The practical and legal implication of a private company dictating the use of frequencies necessary for maritime safety and homeland security is a serious cause of concern for this country's spectrum management process."[8]

Sincerely,

J. Scott Rainey, Deputy Director
American Pilots' Association

CC: Qualex International, Inc.
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[7] Letter dated October 24, 2003 from Frederick R. Wentland, Associate Administrator, Office of Spectrum Management, NTIA to John Muleta, Chief, Wireless Telecommunications Bureau, RM-10821.
[8] Id.