PRESIDENT'S DEPARTMENT
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June 22, 2011

The Honorable Tom Petri
Chairman
House Aviation Subcommittee
2251 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Petri:

As you prepare for the Subcommittee's hearing on "GPS Reliability: A Review of Aviation Industry Performance, Safety Issues, and Avoiding Potential New and Costly Government Burdens," I respectfully offer the perspective of the Air Line Pilots Association, International (ALPA).

For the past 80 years, ALPA has played a pivotal role in a wide variety of significant safety improvements in the airline industry. Today, we represent more than 53,000 pilots at 39 airlines in the US and Canada, and we are proud to have partnered with your Subcommittee to help make airline travel the safest mode of transportation in human history. Our commitment to unbiased, fact-based evaluation of airline safety and security issues has won ALPA an unrivaled reputation for excellence throughout the airline industry.

ALPA is a strong proponent of NextGen and supports its implementation to improve safety, increase capacity and efficiency, and reduce aviation's environmental footprint. The safety and efficiency of the aviation operations today are already heavily reliant on the invaluable position, navigation, and timing accuracy provided by GPS. GPS is now used for aircraft navigation, all-weather approaches and landings, surveillance, separation between aircraft, and pilot situational awareness. As NextGen initiatives continue to mature, there will be ever-increasing emphasis on the central role of GPS.

Unfortunately, a threat is being posed to the viability and usefulness of GPS from LightSquared (L^2), a privately held commercial enterprise which plans to deploy a network of 40,000 transmitters across the U.S. to provide broadband communications services. L^2 intends to use a frequency band immediately adjacent to that assigned to GPS, which uses a low-powered signal that will be disrupted by L^2's much higher-powered signal. The LightSquared system, if allowed to operate as requested in their license application, would cripple the ability of pilots to safely, accurately and efficiently operate in all conditions.

Since 1983, when President Reagan announced that the GPS system would be made available for civilian use, GPS has become a crucial element of the aviation industry. The aviation community has long recognized that the GPS signal is, by design, of very low power and is thus susceptible to interference. For this reason, use of the radio frequency spectrum next to that used by GPS has been limited to similar low-powered, satellite-based signals to ensure that the GPS signal is not adversely affected. In stark contrast, the LightSquared proposal to deploy 40,000 high-powered ground based transmitters would create interference, now validated by rigorous testing and analysis, that would disrupt GPS nation-wide.

Joint government and industry tests clearly show GPS-based operations would be unavailable over entire regions of the country at any normal operational aircraft altitude.

Reverting from GPS to exclusive use of ground-based navigation systems would constitute a huge and unacceptable leap backwards in technology and safety and would be highly impractical, if not impossible, to achieve. The National Airspace System (NAS) simply cannot return to pre-GPS operations. This is due to the fact that the FAA has been decommissioning ground-based navigational aids for the past several years. The FAA's decommissioning program was intended to further take advantage of the efficiency afforded by GPS by removing high-maintenance, technologically outdated equipment from the NAS. Such modernization efforts are appropriate, timely, and in the best interests of the traveling public and the country's economic health. As a result, allowing LightSquared to commence operations before acceptable, proven mitigations are developed to prevent interference should not be viewed as an option.

In 2007, the Federal Aviation Administration (FAA) began a $1.8 billion GPS-based Automatic Dependent Surveillance – Broadcast (ADS-B) program to replace radar-based surveillance of aircraft in the NAS. The GPS-enhanced aircraft position information, which is transmitted from the aircraft to air traffic controllers as well as other aircraft, is increasing capacity and efficiency both in the terminal and en route portions of the National Airspace System (NAS). ADS-B also provides radar-like surveillance coverage of mountainous and remote areas like Alaska and the Rocky Mountains – areas where radar is currently not available.

Without GPS there will be areas of the country without a way to navigate efficiently or, more importantly, land safely in bad weather. Most airports serviced by air carrier operations now have multiple GPS-based procedures. Many of these runways were not equipped for approaches using ground-based navigational aids during bad weather, which resulted in cancellations or delays. Now, using GPS, approaches are conducted in safety during all weather conditions at these locations.

Since 1994, the US commitment to provide GPS for aviation worldwide has been the key to GPS aircraft navigation and surveillance applications, which today support safer and more efficient aviation operations worldwide. Allowing L^2 to operate a system that interferes with the GPS signal would negate decades of advancements in operational safety and capacity. This is not acceptable to ALPA and we do not believe that it should be acceptable to Congress or the flying public.

L^2's system must not be approved or deployed in any manner unless and until the company demonstrates that is has fully protected the GPS systems relied on by millions of Americans for safe and efficient air travel.

Thank you for your oversight of this matter.

Sincerely,

Donald Lee Moak

Lee Moak, President
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