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Docket Management Facility (M-30)
U. S. Department of Transportation
West Building Ground Floor, Room W12-140
1200 New Jersey Ave. SE
Washington, DC 20590-0001

Subj.: Docket # USCG 2013-0054 / Nationwide Differential Global Positioning System

**COMMENTS OF THE AMERICAN PILOTS’ ASSOCIATION**

The American Pilots’ Association (APA), on behalf of its Navigation and Technology Committee (NAVTECH) and its nation-wide membership, is pleased to submit the following comments in response to the Notice that appeared in the April 16, 2013 Federal Register, 78 Fed. Reg. 73, requesting public comments on the current and future usage of the Nationwide Differential Global Positioning System (NDGPS), the need to retain the NDGPS, and the impact if NDGPS signals were not available.

The APA is the national association of the piloting profession. Virtually all of the nearly 1,200 state-licensed pilots working in the 24 coastal states of the United States, as well as all of the U.S. registered pilots operating in the Great Lakes system under authorization by the Coast Guard, belong to APA member pilot groups. These pilots handle over 95 percent of large ocean-going vessels moving in international trade in the waterways of the United States. Their role and official responsibility is to protect the safety of navigation and the marine environment in the waters for which they are licensed. In this regard, the APA and the Coast Guard have the common objectives of the safe, secure, and environmentally responsible movement of maritime commerce. These comments are submitted in the spirit of these shared objectives.

**The NDGPS service is critically important to compulsory pilots and the Coast Guard should not discontinue this system.** The NDGPS provides pilots with highly accurate, reliable, repeatable, and real-time positioning information as they safely maneuver large vessels in narrow channels and in close proximity to other vessels and navigational hazards. Such
information will become even more important in the future as the size of ships entering U.S. waterways – length, beam and draft – will dramatically outpace channel expansion in America’s ports.

APA and its members have long been strong supporters of, and active participants in, the development and use of improved navigational technology, and have worked closely with the Coast Guard to contribute to efforts to enhance navigational and marine safety. APA-member pilots in the United States have been using the U.S. Coast Guard's NDGPS since the early 1990's for their Portable Pilot Navigation Systems (commonly referred to as Personal Pilot Units or "PPUs"). The Coast Guard’s differential network continues to be relied on for these portable systems, which are now used by well over 75% of APA-member pilots. When shipboard navigational equipment is inoperative, malfunctions, or is otherwise unable to provide the pilot with the necessary navigational positioning information, having a PPU with reliable and repeatable accuracy significantly enhances the pilots’ ability to carry out their statutorily required navigational safety duties.

While some (including some Coast Guard personnel) have implied that Wide Area Augmentation System (WAAS), one of the subscriber correction services, or even uncorrected GPS would be sufficient for navigation in restricted and congested waters, this simply is not the case. APA's NAVTECH, along with many of our member pilots, have concluded that WAAS has significant deficiencies for marine GPS augmentation because WAAS is a satellite based system that requires consistent line of sight to a low elevation geosynchronous satellite. When a pilot is using his or her PPU, it is not always possible to put the PPU antenna in a location that permits reliable and consistent reception of the WAAS correction signal. When a consistent line of sight is not maintained, shadowing and "position jumping" occur. Based on "real-world" experience, our membership reports that WAAS does not provide the required positioning accuracy and reliability in all geographic areas. In addition, WAAS’ current lack of real-time integrity monitoring in marine GPS units raises serious questions about reliance on this system. NAVTECH members and pilots at various ports around the country are also of the opinion that Subscriber Correction Services, such as OMNISTAR, present many of the same concerns as WAAS, and, in addition, can also be cost prohibitive in many areas.

As for GPS signals that are uncorrected by differential, these signals cannot provide the necessary position accuracy, reliability and real-time guidance for pilotage waters, including near-coastal, harbor entrance and approach, and inland waterways. We are aware of the fact that the number of satellite positioning systems around the world is on the rise. We are also aware that GPS receivers in the future may be able to use multiple satellite systems and draw on dual frequencies. At the present, however, uncorrected GPS does not provide the needed accuracy and is clearly not an acceptable alternative to DGPS.

The APA notes that the U.S. Coast Guard’s Navigation Safety Advisory Council (NAVSAC) has expressed a similar position. APA endorses the recommendations found in NAVSAC’s November 2012 Resolution (12-05), which reads in applicable portion:

"NAVSAC strongly recommends to the Secretary of Homeland Security, through the Commandant of the U.S. Coast Guard, the following actions:

1. Announce publically a clear policy to maintain and continue to operate DGPS in coastal, harbor entrance and approach and inland waterway areas of the United States;"
2. Request annual appropriations, through the Congressional budget process, sufficient to maintain and operate DGPS in the coastal, harbor entrance and approach, and inland waterway areas of the United States.

The APA is of the strong view that terminating the NDGPS at this time would be a mistake that would have a significantly negative impact on the safety of navigation on America’s waterways. Given the relatively small cost for the federal government to maintain the NDGPS, combined with the enormous potential costs (both in dollars and damage to the environment) of a substantial reduction in navigation safety in near-coastal, harbor entrance and approach, and inland waters, it is “penny wise and pound foolish” for the Coast Guard to consider dismantling the NDGPS at this time. APA supports the Coast Guard’s efforts to meet its navigational safety and environmental stewardship obligations and strongly recommends that the NDGPS be maintained.

Respectfully Submitted,

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