

## INFORMATION PAPER

AMIM-AGP (200A)

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SUBJECT: FAA "Dolphin" VORTAC – Functions and Impact on Land Use

1. **PURPOSE.** Provide information on the Federal Aviation Administration (FAA) Dolphin VORTAC located on FAA land adjacent to USAG-Miami.

2. **BACKGROUND.** The FAA's "Dolphin" VORTAC is a radio-based navigational aid for aircraft pilots consisting of a co-located VHF omnidirectional range (VOR) beacon and a tactical air navigation system (TACAN) beacon. Both types of beacons provide pilots azimuth information and are a backup to GPS. The facility adjacent to USAG-Miami supports 10 different airports in the South Florida airspace.

a. VOR stands for VHF Omnidirectional Range. It is a navigation beacon intended for civil use and provides a user with a radial to/from the station. It works on frequencies between 108.00 and 117.95 MHz.

b. TACAN stands for TACTical Air Navigation, a military system that is similar to VOR but with higher accuracy. It works on frequencies between 960 and 1215 MHz. Part of the TACAN is DME (Distance Measurement Equipment), which works in the same frequency band. The DME used in TACAN is the same that can be used by civil aircraft. Due to the higher frequency the system is more accurate and the antenna is much smaller and therefore easier to deploy (e.g. on a ship).

3. **DISCUSSION.** While this system is being decommissioned at some locations and replaced with GPS, the Dolphin VORTAC in particular will remain in operation as a critical and essential element of air navigation and aviation safety in South Florida for the foreseeable future. There are no plans to decommission this equipment.

a. The FAA provided an initial planning stand-off of an 800-foot radius within which no structures could be constructed, but recently revised that guidance to a 1000-foot radius as the standard stand-off for this type of facility/equipment.

b. Regardless of the planning stand-off above, in order to fully determine what is possible in terms of construction and structures on the FAA site adjacent to USAG-Miami, sufficient detailed site planning and structure design data (coordinates, elevations, type construction, etc.) must be provided to the FAA for every planned structure to complete a formal Obstruction Evaluation / Airport Airspace Analysis (OE/AAA) IAW 14 CFR, Part 77 ( See <https://oeaaa.faa.gov/oeaaa/external/portal.jsp> ).

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