

APPENDIX R

Obstruction Evaluation for the Hounsfield Wind Farm

Aviation Management Associates, Inc.

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Thomas L. Hagner
Watertown Development of NY, LLC
950-A Union Road
West Seneca, NY 14224

RE: Obstacle Evaluation for the Galloo Island Wind Project

Dear Mr. Hagner:

Aviation Management has completed an obstruction evaluation and airspace analysis of the Galloo Island Wind Project located on Galloo Island, NY. The purpose for this study was to identify obstacle identification surfaces established by the Federal Aviation Administration in close proximity to the study area. Aviation Management found that there are no FAA obstacle identification surfaces that will limit development of a wind farm on Galloo Island, New York.

In order to determine the maximum allowable height on the property, Aviation Management evaluated the study area in accordance with obstruction standards defined under 14 CFR Part 77 "Objects Affecting Navigable Airspace", FAA Order 8260.3B (Change 19) "United States Standard for Terminal Instrument Procedures (TERPS)", and FAA Order 7400.2F, "Procedures for Handling Airspace Matters". Data used in the analysis was derived from United States Government publications including Flight Information Publication, US Terminal Procedures, and National Airspace System Resource Aeronautical Data.

FAA Aeronautical Studies

The FAA's authority to promote the safe and efficient use of the navigable airspace, whether concerning existing or proposed structures, is predominantly derived from Title 14 U.S.C. Section 44718 (Section 44718). It should be noted however, that Section 44718 does not provide specific authority for the FAA to regulate or control how land (real property) may be used in regard to structures that may penetrate navigable airspace.

The prime objective of the FAA in administering Section 44718 and 14 CFR Part 77 in conducting obstruction evaluation studies is to ensure the safety of air navigation and efficient utilization of navigable airspace by aircraft.

The requirements for notifying the FAA of proposed construction or alteration are contained in Sections 77.13 and 77.15. FAA Air traffic personnel are responsible for conducting obstruction evaluation studies (aeronautical studies) with the coordinated assistance of additional FAA offices including the offices of Airports, Technical Operations Services, Frequency Management, Flight Standards, Flight Procedures Office, and the Department of Defense.

Part 77 establishes standards for determining obstructions to air navigation. A structure that exceeds one or more of these standards is presumed to be a hazard to air navigation unless the obstruction evaluation study determines otherwise.

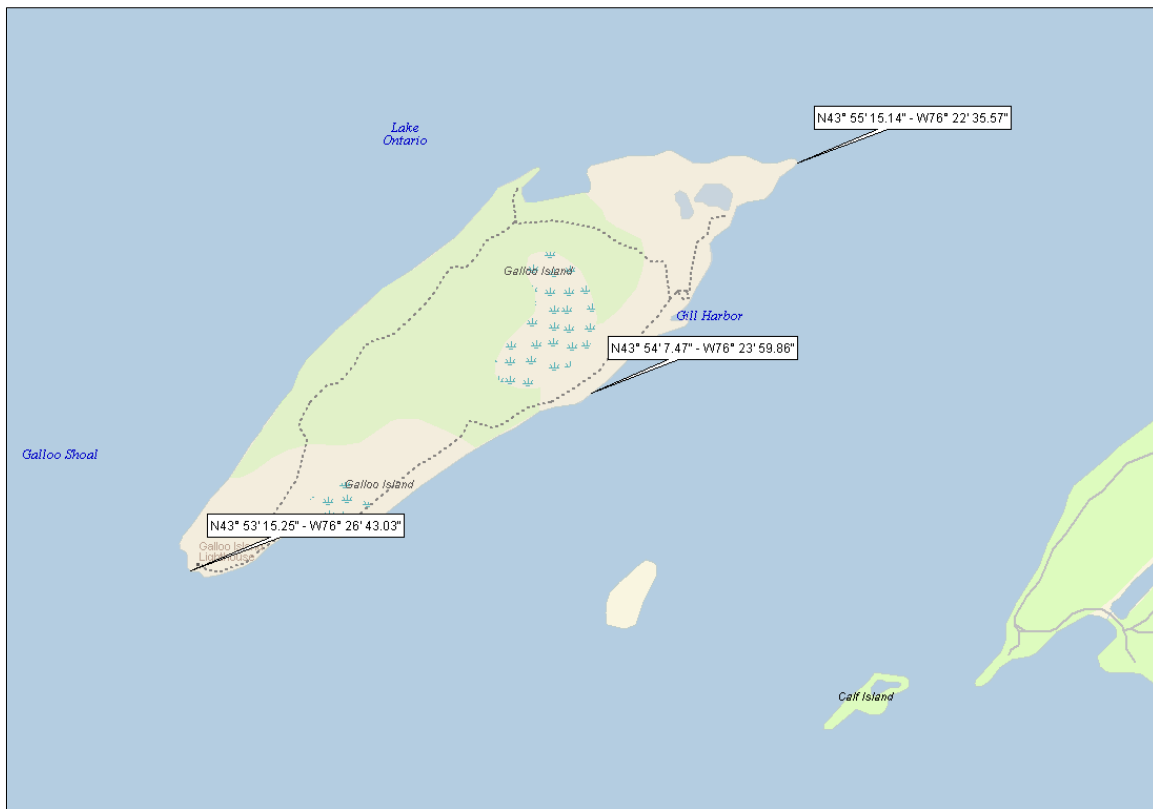
A structure is considered to have an adverse aeronautical effect if it first exceeds the obstruction standards of part 77, and/or is found to have physical or electromagnetic radiation effect on the operation of air navigation facilities. A proposed or existing structure, if not amended, altered, or removed, has an adverse effect if it would:

- a.** Require a change to an existing or planned IFR minimum flight altitude, a published or special instrument procedure, or an IFR departure procedure for a public-use airport.
- b.** Require a VFR operation, to change its regular flight course or altitude.
- c.** Restrict the clear view of runways, helipads, taxiways, or traffic patterns from the airport traffic control tower cab.
- d.** Derogate airport capacity/efficiency.
- e.** Affect future VFR and/or IFR operations as indicated by plans on file.
- f.** Affect the usable length of an existing or planned runway.

Study Findings

Aviation Management studied the subject property based upon estimated coordinates and elevations derived from a combination of topographic maps and Google Earth, a geographical information system. At the time of this study, the location of proposed turbines on the property had not been determined. The following coordinates and elevations represent the approximate study boundaries. Coordinates are represented in the North American Datum of 1983:

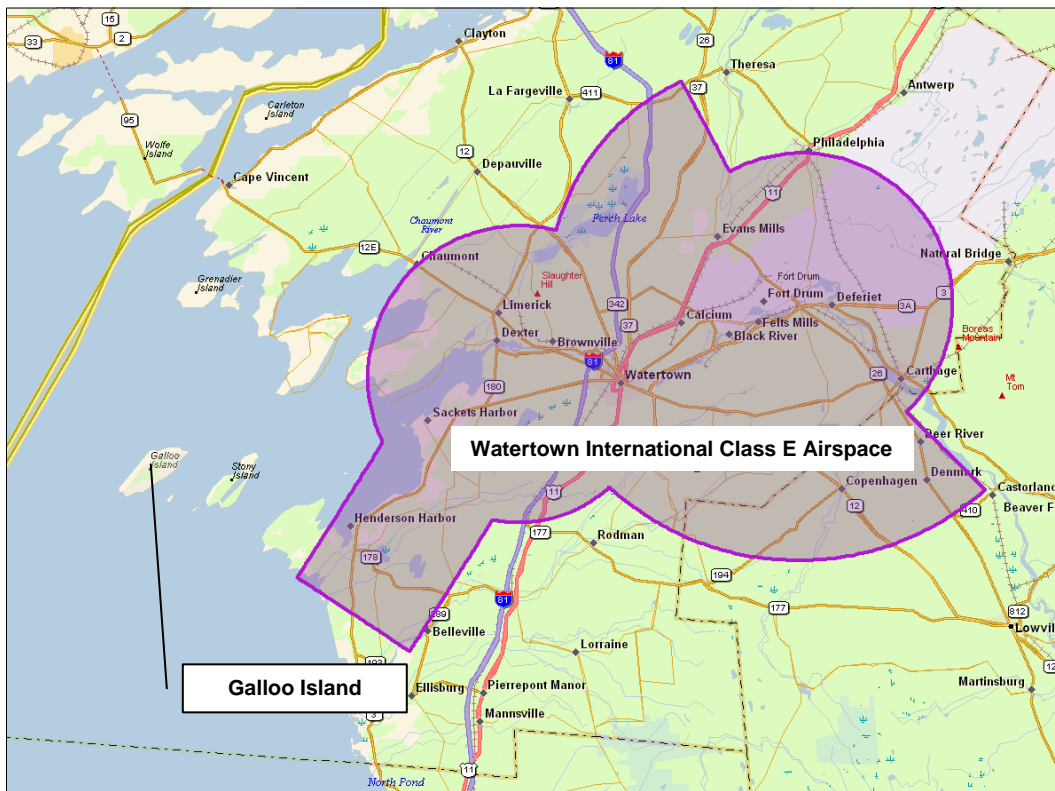
Point	Latitude	Longitude
Northeast	N43° 55' 15.14"	W76° 22' 35.57"
East	N43° 54' 7.47"	W76° 23' 59.86"
Southwest	N43° 53' 15.25"	W76° 26' 43.03"



Galloo Island, NY

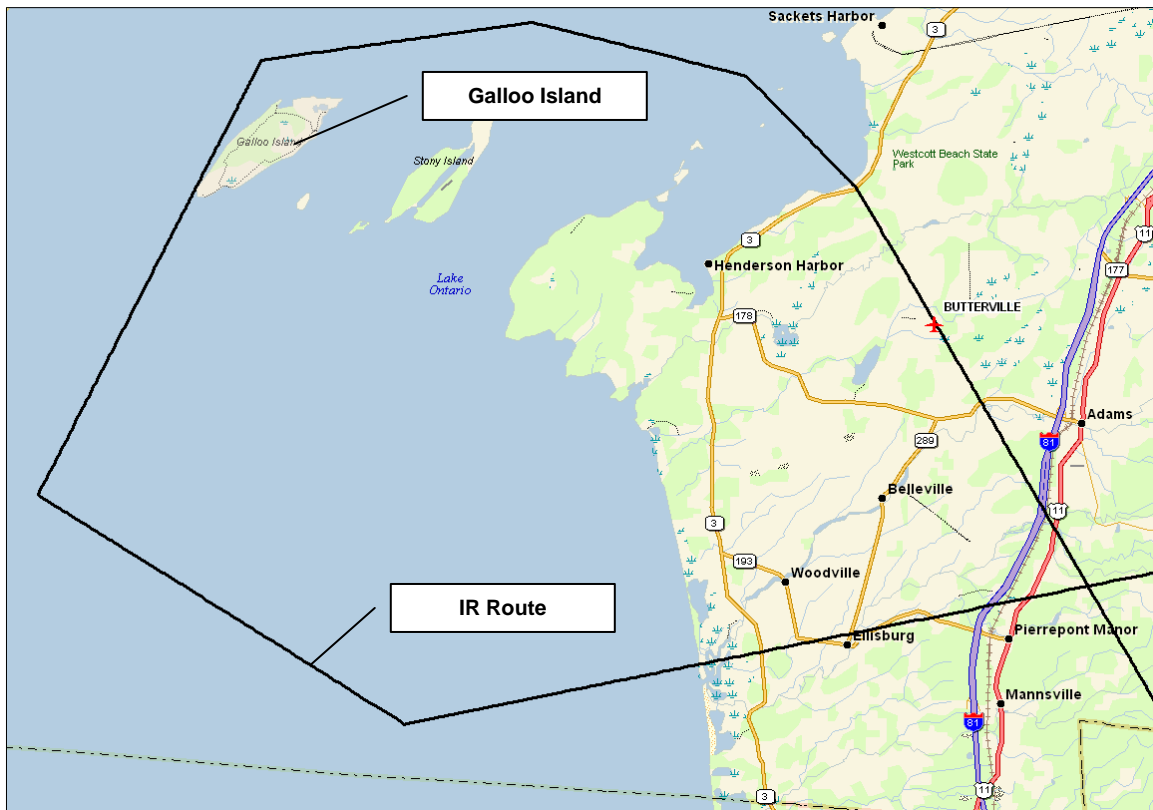
The closest public use airport to the study area is Watertown International Airport (ART) located to the northeast at a distance of 17.26 nautical miles. The FAA establishes Class E airspace around airports with instrument procedures. All instrument procedures are contained within this airspace. At its closest point, Galloo Island is located approximately 8.5 nautical miles west of Watertown International's Class E airspace and therefore will not be limited by constraints associated with this airspace.

Additionally, there are three instrument approaches to Runway 07 at Watertown International. All three instrument approaches, ILS, RNAV (GPS) and VOR, pass well east of Galloo Island and will not be impacted by wind turbine development on the island.



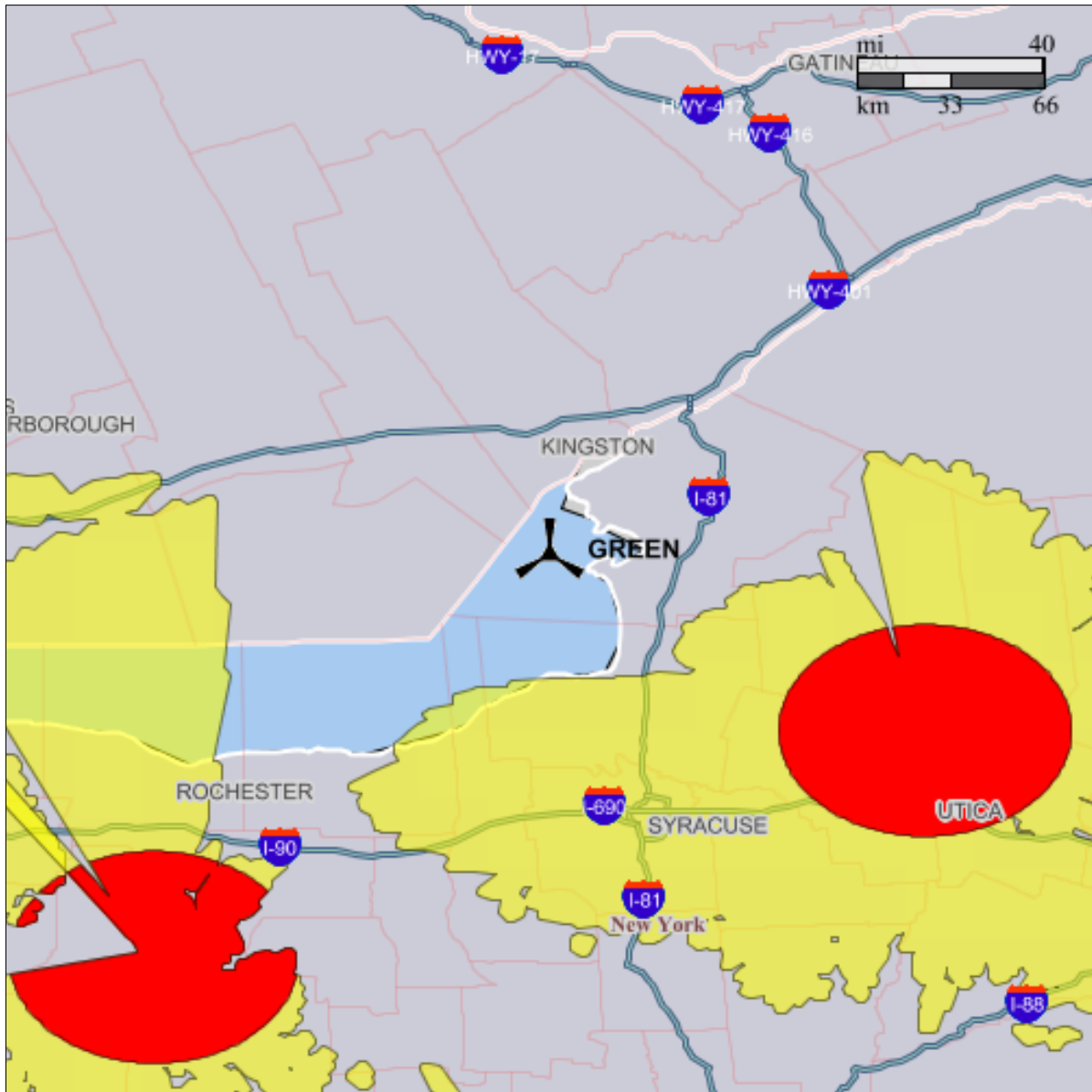
Watertown International Class E Airspace

Aviation Management identified an IFR Military Training Route that borders the western edge of Galloo Island. This training route is used by the military to provide pilots with training for low altitude navigation and tactics. Flight along these routes is often conducted at low level. However, proximity to an IFR Military Training Route is not justification for the issuance of a hazard determination. Therefore, while consideration of this route will be included in the FAA's aeronautical study, the presence of this route will not limit the height of proposed turbines on the island.



IFR Military Training Route

Over the past few years the FAA has been tasked with evaluating an ever growing number of wind turbine farms. While in most cases, wind farms do not pose a hazard to air traffic operations, they have been found to impact long range radars used by the FAA and the Department of Defense. The FAA has not published guidance to the public for the evaluation of radar impact citing national security concerns. However, the FAA has provided a tool for use by developers to determine impact. Aviation Management, using the FAA's long range radar impact tool found that the study area fell outside of the areas identified by the FAA as having a high probability of impact. Therefore, impacts on long range radar will not limit turbine heights on Galloo Island.



FAA Long Range Radar Study

Based on the findings of this study, development on Galloo Island is not likely to be limited based on aeronautical impact. It is recommended that FAA Form 7460-1 be submitted for a central location on the island for FAA review. This filing should represent the worst case (highest turbine height) scenario and will provide the FAA an opportunity to provide a determination of height as well as lighting recommendations. Once you have finalized your turbine layout on the island, it will be necessary to file each turbine with the FAA for aeronautical study.

If you have any questions regarding this study, please do not hesitate to contact me.

Best Regards,

Ben Doyle
Director
Airspace Analysis