

# HARRIS MILLER MILLER & HANSON INC.

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## MEMORANDUM

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**To:** Jim Brundige, HTO  
and  
William Castillo, DY Consultants

**From:** Ted Baldwin, HMMH

**Date:** September 26, 2012

**Subject:** First Phase of HTO Use Restriction Justification Analysis  
Identify General Scope of Available Data

**Reference:** HMMH Project No. 305331

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HMMH is assisting East Hampton Airport (HTO), through DY Consultants (DY), in responding to direction from the East Hampton Town Board in Resolution (RES-2012-832, "Intent to Pursue Use Restrictions at East Hampton Airport") as follows:

[T]he Airport Manager and DY Consultants (through their subconsultant, HMMH) are directed to assess and evaluate data that has been (and continues to be) collected on noise and operations at the Airport for the purpose of providing recommendations to the Town Board; and ... within the next 3-6 months, Airport Manager and consultants are directed to prepare a report for the Town Board setting forth their conclusions on whether the data can justify a restriction on operations by helicopters at the Airport and, if so, what restriction would be most effective in light of the available data.

Under the first phase of this assistance HMMH is working with DY and Airport Management to identify the general format, elements, and sources of relevant data that could be of sufficient value and validity to include in the assessment.

For efficiency, we have agreed that DY staff will undertake initial data inventory, assembly, and review, under HMMH direction and in coordination with HTO management. *At DY's request, this memorandum provides guidance to DY for undertaking that task.* Once DY and HTO management have had an opportunity to review these recommendations, we will convene a conference call to address any question or concerns, and to arrange for DY to access the data through software and hard-copy files available at HTO or other locations. At a subsequent time, HMMH staff will conduct a data collection field trip to review progress and with DY and HTO management, and to discuss approaches to addressing identified data needs, gaps, inconsistencies, etc.

These recommendations cover the following primary topics:

- Time periods to be considered
- Data sources to be evaluated
- Data categories to be assembled
- Initial work product sought
- Timing of next study steps

### 1. Time Periods to Be Considered

We recommend that the data collection be conducted in a manner that permits analysis and comparison of the time periods of potential interest – individually and in combinations of interest.



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*As the first step in this process, we request that DY determine the dates when following actions or changes in conditions were initiated:*

- Operation of the Vector Airport Solutions system in a reliable enough fashion to utilize the data in this analysis. *Additional questions:* Was there any phase-in period of any sort, in terms of coverage area, time, or accuracy, etc.? Did HTO management or Vector staff conduct any assessment of the new system's performance during initial implementation? Once the system was in place, were there any variations in coverage or performance that might affect the reliability or comprehensiveness of the data collected to date? Is the installation considered "stable," or are any further fine-tuning or adjustment steps expected? Is there any anticipation that system operation will vary on an ongoing basis; e.g., during specific seasons, times of day, weather conditions, etc.?<sup>1</sup>
- Operation of the web-based PlaneNoise complaint-management system, in a reliable enough fashion to utilize the data in this analysis. *Additional questions:* Was there any phase-in period? Was there a period during which prior, manual complaint logging was conducted in parallel with the PlaneNoise system? Did HTO management or PlaneNoise staff conduct any assessment of the new system's performance during initial implementation? Is the installation considered "stable," or are any further fine-tuning or adjustment steps expected? Is there any anticipation that system operation will vary on an ongoing basis?
- Operation of a seasonal air traffic control tower. What was the date of initial operation? *Additional questions:* Was there any phase-in of operation (e.g., partial days or weeks)? What was the staffing schedule once operations were in place? Was there any variation in schedule since that time? What is the best available information regarding the ongoing staffing schedule, as far as it has been planned? When will tower operations cease for the year; i.e., is it still scheduled to be the end of October?
- Establishment of a formal rule by the Federal Aviation Administration (FAA) that requires helicopter pilots to use the "New York North Shore Helicopter Route," when operating along the north shore of Long Island. *Additional questions:* Was it initiated on August 6, 2012 as announced? Was it rule implemented in an immediate fashion, or was there any phase-in or trial period(s)? Once initiated, did it continue to be in effect without interruption? How as it communicated? Is there any information on operator, pilot, or air traffic control feedback that would help to assess the implementation of the change?
- Alteration of the Northwest Creek helicopter arrival route. Exactly when did this alternation take place? *Additional questions:* Was it phased in? Did it apply to all operators, or were there differences in application for different categories of operators prior to or after the alteration? Once initiated, did it continue to be in effect without interruption? How as it communicated? Is there any information on operator, pilot, or air traffic control feedback that would help to assess the implementation of the change?
- Timing of any unusual airport operational conditions during the 12-month period ending on the date that HTO tower operations will cease this year (e.g., for the November 1 2011 – October 31, 2012 period), for example, any full or partial runway closures or other conditions that might have constrained operations, to ensure that we take these considerations into account in assessing helicopter operations, routes, complaints, etc. *These conditions are separate from weather conditions, since they will be considered in as detailed*



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<sup>1</sup> These same types of questions regarding variation of data coverage, accuracy, timing, etc. are asked for each data source and type to ensure that we compare, combine, and correlate them in a valid manner.

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*a fashion as possible on a flight-by-flight, hour-by-hour, or day-by-day basis, as permitted by available data, as discussed in items 2 and 3, below.*

- Operation of AirScene. This is a well-established, ongoing data collection system. However, we request that in this first step, DY determine the systems operational status during the time period identified in the preceding item; i.e., for the November 1 2011 – October 31, 2012 period, assuming the tower operations cease on that date. We anticipate that it may be possible to query the system to obtain reports on operating status. Alternatively, the HTO Airport Manager may be able to provide the information. *Additional questions:* Was there any variation in operating performance during the time period of interest due to vendor adjustments? Were there any system upgrades or enhancements (or downgrades) made during the time period? Did the vendor or HTO staff make any adjustments to operating parameters during the time period of interest that might have affected data collection (e.g., data collection area, altitude ceiling, data retention, correlation parameters, etc.)? Once again, we are interested in any temporary or ongoing changes in operations that might affect the comparability of data collected during differing time periods.



## 2. Data Sources to Be Evaluated

We anticipate that the following data sources will be evaluated in this project phase:

- AirScene operations monitoring
- Vector operations monitoring
- PlaneNoise complaint management
- HTO air traffic control tower records
- HTO management operations records
- Weather data records

The first three of these categories are relatively well-defined and available through the respective software tools; specific questions related to their operational status and coverage are addressed in item 1. In this first phase, we request that DY interview the HTO Airport Manager to identify the availability of any pre-programmed reports that provide data in the categories identified in item 3 below, that either can be run on demand or that have already been run and may be available in existing electronic or hard-copy files.

The last three data sources are less defined. We request that DY interview the HTO air traffic control tower manager and HTO Airport Manager to identify airport activity, operations, weather, and other potentially pertinent data sources, such as traffic counts, night security logs, records of active runway in use, NOTAM archives that might provide information on airport operating conditions, etc. We are looking for all potential data sources that might complement the other data sources or provide data on the categories identified in item 3, below.

With regard to the weather data, we anticipate that there may be multiple sources; e.g., within AirScene, within air traffic control tower logs, or from an on-airport meteorological monitoring station. We request that DY investigate the availability of each of these types of sources, with particular focus on sources that might provide the weather data in electronic records so as to permit efficient correlation with other data types, e.g., through spreadsheet or database applications. If electronic files are not directly available from AirScene, we can investigate obtaining the data from the U.S. Department of Commerce's National Climatic Data Center (NCDC), for the most nearby monitoring installation.

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## 3. Data Categories to Be Assembled

We anticipate that the following primary data categories will be evaluated in this project phase:

- Flight tracking (e.g., ground tracks)
- Any associated routes (e.g., identified by AirScene through pre-established “gates” or “corridors”)
- Flight altitudes
- Type of operation (e.g., arrival, departure, touch-and-go, or overflight)
- Date and time of operation
- Aircraft type identification (as specific as possible, including any available airframe, powerplant, Part 36 status or other data available)
- Aircraft registration
- Aircraft owner / operator identification
- Runway used (for fixed-wing aircraft)
- Instrument or Visual Flight Rule (IFR or VFR) operations
- Instrument or Visual Meteorological Condition (IMC or VMC) operations
- Flight origin for arrivals
- Flight destination for departures
- Noise complaints associated with specific aircraft operations
- Noise complaints attributed to aircraft operations that cannot be associate with a specific operation
- For noise complaints, all available data on complainant identification, address, or other fields of data collected by PlaneNoise
- Weather conditions associated with individual operations
- Airport and air traffic control tower operating conditions associated with

## 4. Initial Work Product Sought

We recognize that none of the data sources discussed in item 2 will cover all of the data categories identified in item 3, nor will all of the data sources and categories be available for the full data analysis period of interest (i.e., November 2011 – October 2012), as will be determined under item 1.

Our primary objective in this initial task is to develop a cross-referencing of:

- Data sources
- Data categories
- Data availability by time period
- Data accuracy / reliability / completeness by time period
- Overlapping data categories available from multiple sources, i.e., bases for permitting us to correlate and cross reference the data (e.g., date and time, spatial location, aircraft identification, etc.)
- Data formats (e.g., electronic spreadsheets or databases, or hard-copy)



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Ideally, this preliminary investigation will permit DY and HMMH to develop a matrix that identifies these relationships, and the manner in which we can evaluate cause-and-effect relationships, trends, etc. As requested with representatives of the Town of East Hampton, we are particularly interested in differences in operations and complaints during peak- and off-peak traffic periods (e.g., before, between, and after Memorial Day and Labor Day, on specific days of the week, on holiday weekends, etc.), during time periods with and without the HTO air traffic control tower staffing, during informal and formal implementation of the North Shore Route, and during varying weather conditions.

This preliminary investigation will help us to identify any significant data gaps, constraints on our ability to correlate data, and any other inventory needs. It also will permit us to begin to plan the most efficient means of assembling the data for further analysis – ideally through electronic formats that will permit efficient assembly into an integrated database or multiple databases that permit cross referencing.



## 5. Timing of Next Study Steps

For purposes of efficiency and comprehensiveness, we do not recommend that DY, HTO management, and HMMH undertake detailed data *assembly and analysis* until the tower operations have ceased for 2012, since the benefits of that facility are a critical point of interest. In the interim, we can undertake the steps outlined in this memorandum. *Given the scope of these first steps, waiting for the tower to cease operations for the year will not delay the study process.*