MAIR-E Site Survey Report

Austin, TX and Harrisburg, PA 11 ~ 15 July 2022 Peisang Tsai, Douglas Stewart, Lou Lussier

MAIR-E will take place in three different locations: Broomfield CO, Austin TX, and Harrisburg PA. The GV associated crew for operations and instrument support will have 10~12 people from NCAR on site along with the PI team participants. The site survey team met with the FBOs from each location and hotels to identify locations for aircraft operations, instrument support, operation offices, and accommodations.

Austin, Texas

An overview of the Austin area and MAIR-E operation locations are shown in the image below (Figure1). With the airport located in the southeast, our locations are chosen in the southern part of the city to avoid major highway traffic. The airport can be reached from the hotel via local roads in approximately 15 minutes. The operation center will be in the coworking place, Fibercove. The Fibercove will be approximately 20~25 minutes from the airport and about 15 minutes from the hotel. Amenities such as grocery stores (H.E.B.) and restaurants are less than 10 minutes away south from the hotel.



Figure 1. An overview of the operation locations in Austin, TX

Aircraft Operations

Two of the fixed base operators (FBO) were contacted for the aircraft operations. The locations of the FBOs are shown in Figure 2. The Signature FBO shares the tarmac with other operators along the area. The GV parking location will be determined by the aircraft traffic at the time of the project. Signature uses the world fuel for their fueling services and generally has no issues. Figure 3 contains a few pictures of the facility.

- Signature Flight Support: 4321 Emma Browning Avenue, Austin, Texas 78719
- Point-of-contact: Virginia Cruz, 512-530-5451, virginia.cruz@signatureflight.com
- Parking: Project parking will be right outside the FBO building.
- WiFi connection: the facility offers wireless access to customers. Speed unknown.



Figure 2. Austin FBO locations.



Figure 3. The Signature FBO. Left: Lobby seating area; Right: meeting room.

Accommodations

The Residence Inn Austin South will be the lodging location. Similar to all standard Residence Inn in other locations, the hotel offers a kitchenette, a dining table and a work desk in each room (Figure 6). The kitchenette also provides flatware, dinnerware, kitchen utensils, and a microwave. The hotel offers free continental breakfast in the morning and it has a swimming pool and small gym for the guests. (Figure 7). With the Austin City Limit Festival occurring around the same time, we have proceeded with reservation (for a total of 12 rooms) for the project period. Please make sure your travel plan is consistent with the <u>master schedule</u> by September 14th, 2022.



Figure 6. The Residence Inn Austin South standard guest room.

Operation Center

The data transfer requirement for MAIR-E needs dedicated upload bandwidth 150 Mbps at the minimum. A coworking space in Austin, Fibercove, was identified to serve as the operation center. The cowork space offers Google Fiber connection and the wired connection was tested during our site survey. Figure 8 provides snapshots of the facility. A private meeting room will be reserved as the operation center. The facility offers 24/7 access and the doors are automatically locked between 5:30pm to 8:00am. Participants who will be accessing the facility should provide their names to Taylor Thomas (taylort@ucar.edu) to arrange for access code. The RAF ground station used to upload MAIR-E data after flights, will be stationed in the meeting room for participants' use.



Figure 7. The Residence Inn Austin South. (a) the breakfast lobby; (b) the swimming pool; (c,d) the gym.



Figure 8. The coworking space, *Fibercove*. Left: Coworking desks; Right: kitchen & cafe

Harrisburg, Pennsylvania

An overview of the Harrisburg area and MAIR-E operation locations are shown in Figure 9. The airport is southeast from downtown Harrisburg, approximately 20 minutes by car. The operation center will be located on campus in Penn State University Harrisburg. The campus is within 10 minutes from the airport.



Figure 9. An overview of the operation locations in Harrisburg, PA.

Aircraft Operations

With AVFlight being the only FBO in the airport, the aircraft operations are rather straightforward. The FBO is located right before the airport building and provides most of the infrastructure to support our operations. Figure 10 shows the FBO location, project parking and GV location on tarmac.

- AVFlight : 3 Terminal Drive, Middletown, PA 17057
- Point-of-contact:
- Parking: Project parking will be right outside the FBO building.
- WiFi connection: general internet speed.
- Small meeting room available for occasional meetings

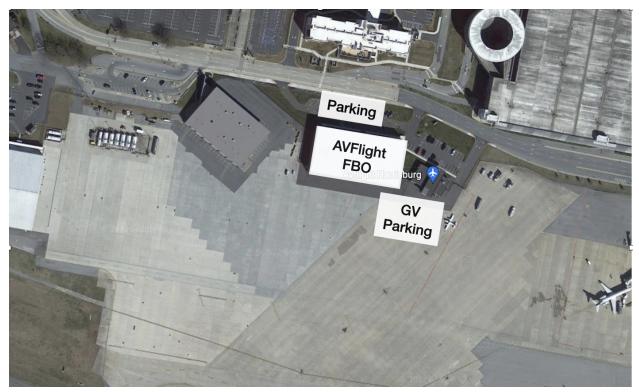


Figure 10. Harrisburg FBO and operation locations.

Accommodations

The site survey team visited three hotels along the major interstates and did not find the lodging suitable for proper crew rest. The amenities such as grocery stores and restaurants are either inconvenient or involve heavy traffic. We selected the Courtyard in Hershey, PA to avoid major traffic issues pre and post flight time. Being a smaller, touristy town, there are more restaurants and grocery stores in close proximity. Hershey is approximately 25 minutes away from the airport. Figure 11 shows the hotel amenities and Figure 12 shows a standard guest room.



Figure 11. Courtyard Hershey Chocolate Ave amenities.



Figure 12. Courtyard standard guest room.