# Background on L3Harris ieMHR Testing Operations

- In response to several FAA, DoD, and DHS Requests for Information from 2018-2021, and in support of it's existing public and private sector customers, L3Harris engaged in non-cooperative, high TRL, low cost, advanced technology, surveillance systems market research and selected the RADA Multi Hemispheric Radar (MHR) portfolio of systems for live testing and evaluation as broadly representative of the high performing, small tactical radar systems market.
- As the world's largest ground-based surveillance network provider, L3Harris is beginning the process of validating small radars for more widespread use throughout the U.S. National Airspace System (NAS) to support FAA Aviation Traffic Control, DoD Air Defense, and DHS Air Surveillance requirements. The L3Harris Monroe St. Herndon, VA location near Dulles International Airport (IAD) contains a rooftop, FAA-certified Live Test Environment (LTE) (slide 3).
- L3Harris will leverage the LTE network and air traffic monitoring capabilities to evaluate ieMHR radar performance by observing commercial aviation flights arriving and departing from the airport and transiting to the north and northwest (slides 4 and 5 with Field of View). In addition to civil aviation targets of opportunity, we also intend to evaluate radar performance against smaller general aviation and UAS targets, including small commercial drones, using one or more nearby testing locations within 100km of the Monroe Street, Herndon, VA location (38-57-01.6N, 77-23-21.3W)
- We anticipate this initial testing phase to include daylight and nighttime testing, lasting 2-4 hours per test, with tests occurring no more frequently than 2-3 days per week during 2021 and 2022. All tests will be fully documented and data recorded for further analysis and to enable development of a highly accurate, ieMHR system simulation model.

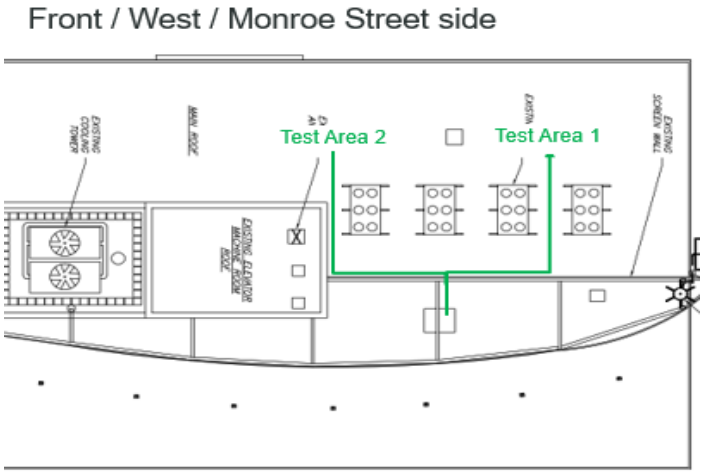
# RADA ieMHR Test & Evaluation Infrastructure

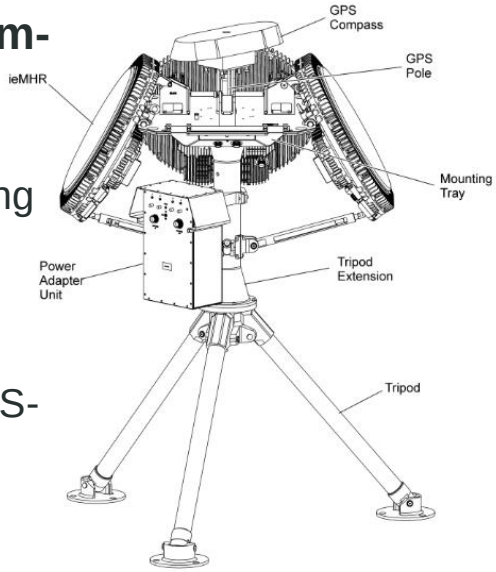
## Single panel ieMHR rooftop T&E

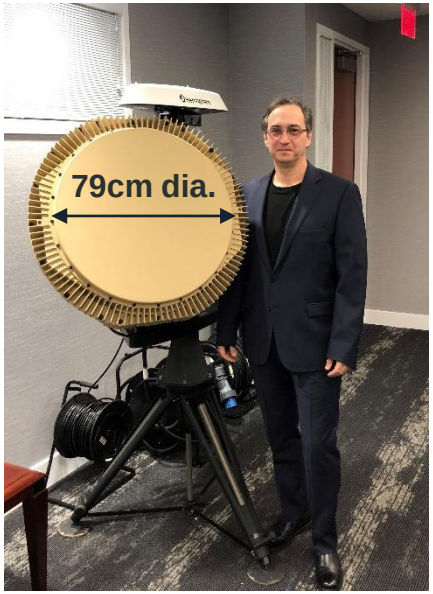
- User Manual and Safety Manual available for review
  - Gross weight single-panel ieMHR system ~89.5kg/197lbs
  - Average transmitted power 196W
  - Avg power consumption 760W
  - Max power consumption 1000W

## SW defined, pulse doppler radar system with element level, digital, adaptive beam-forming technology (+ 60/45º in Az/El),

- advanced clutter and multipath handling techniques to process hundreds of targets using Track While Search (TWS) and revisit modes.
- All models 28VDC (Mil-Std-1275E) and/or 110/220 VAC (Mil-Std-1275B)
- Interfaces: ASTERIX, Ethernet, I/O discrete, RS-422/232



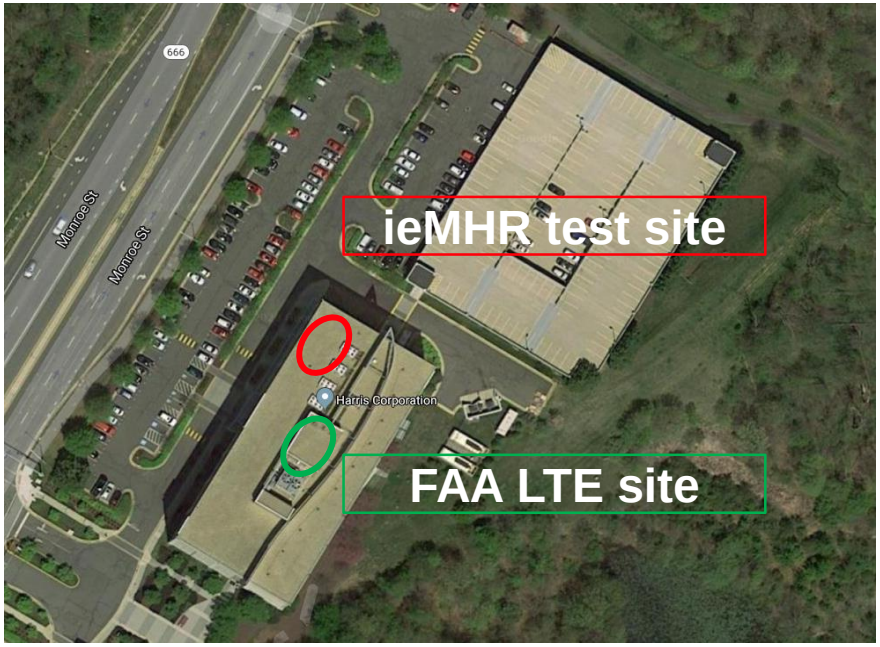



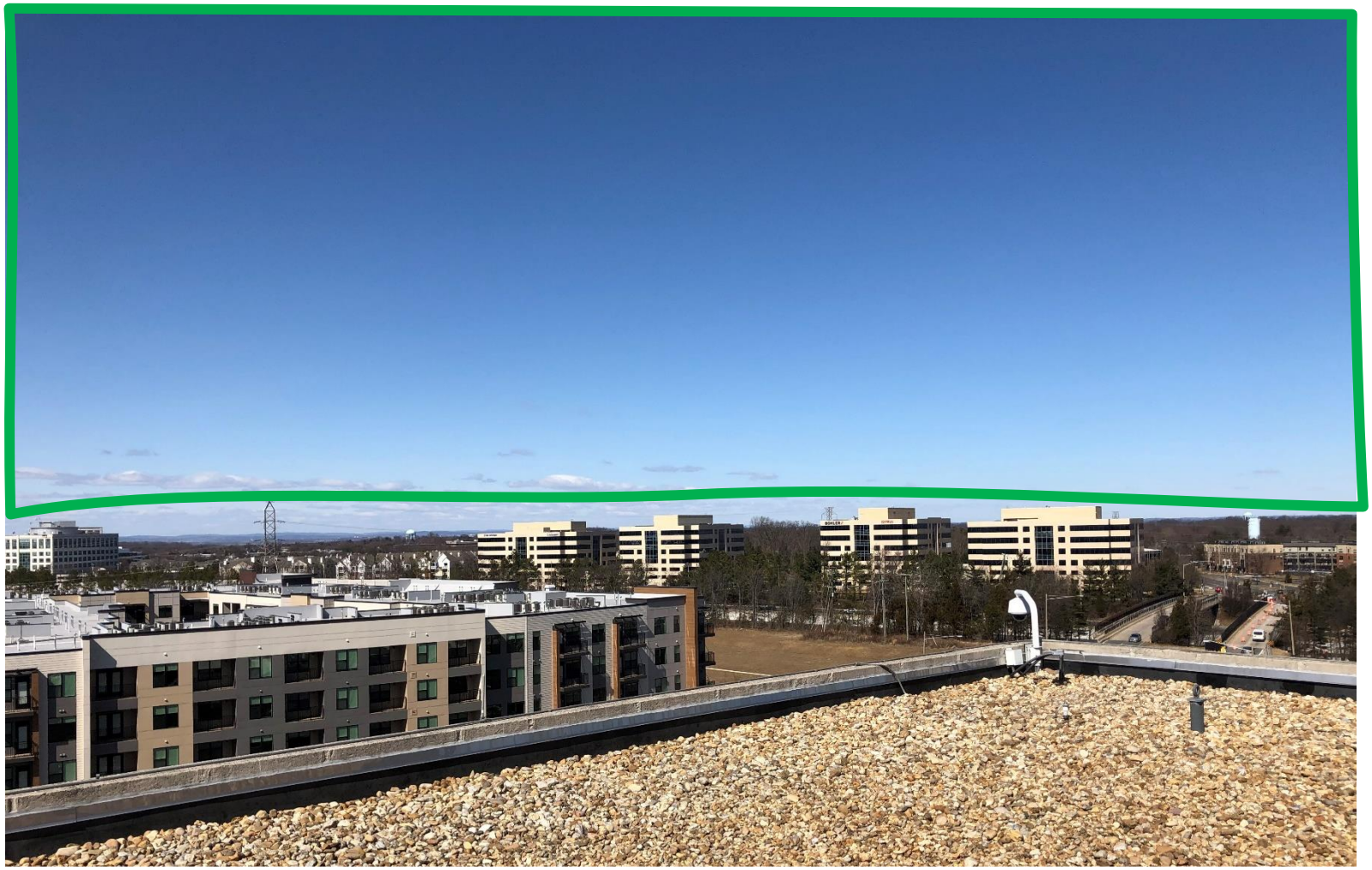
# Overhead/Ground Views of Live Test Environment (LTE)

**2235 Monroe Street, Herndon VA 20170**

- Northwest corner of building rooftop
- Lat: 38.950442; Lon: -77.389241
- Rad Center: ~94 ft AGL, ~480 ft MSL
- ~3.5km from Washington Dulles Intl Airport (KIAD)
- FAA certified test range with unrestricted visibility of IAD flights
- Oriented Northwest (315°T) above local terrain and buildings to observe air targets approaching/departing airport




# ieMHR Northwest FoV 2235 Monroe St. Herndon, VA



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