

Applicant Eligibility Statement

As a company that integrates radios into our end products, and in accordance with the FCC's Code of Federal Regulations 47, Chapter I, Subchapter A, Part 5, Subpart B, 5.63.D Subpart E, GreenSight Agronomics claims eligibility for a program experimental license. We will furthermore address how we meet the eligibility requirements outlined in sections A, B, and C of part 5.302 (Subpart E) following a brief synopsis of both our company and the intention of our experiment.

GreenSight is a Boston-based company that develops and manufactures drones for various purposes and industries. In addition to all of the associated hardware, our drones employ a number of sensors for the purposes of autonomous aerial data collection, analysis, and processing. Given the fact that we produce both hardware and software and can therefore configure the drone for many applications, GreenSight drones are being used in numerous areas and industries, from farms and golf courses to the military and research programs.

Given a program experimental license, GreenSight's intention is to develop a software radio that uses a multicarrier OFDM (Orthogonal Frequency Division Multiplexing) technique to support image and message handling on a drone. This software radio would be used on one or more drones, and would handle communication both between drones as well as from an individual drone to a ground station.

Regarding the specific eligibility requirements:

- A) The initial experiment will be conducted at Lolans Farm, located at 121 Thompson Street, Middleborough, MA. There is a designated area of the farm on and over which GreenSight has permission to carry out flights and tests. Our experiment will take place within this area.
- B) GreenSight's ability to monitor and effectively manage a wide variety of research projects is illustrated by the fact that we have numerous research projects, both current and completed, to our name. In addition to our contracts with private corporations, we regularly apply for and are awarded grants for SBIR (Small Business Innovation Research) projects for various governmental agencies.
- C) GreenSight is fortunate to have a prominent and extremely experienced RF expert in the person of Mr. Dan Pedtke, a Principal Electrical Engineer. In addition to holding a BSEE and BA in Economics from the University of Notre Dame, Dan has 40 years of

experience in electronics and radio in the aerospace field. His background covers a wide range of electronics, from motor power systems to sensors, video, embedded systems, and RF, including GPS. Dan has also worked with other technical disciplines, in materials (plastics), structural and thermal design, optics, and other related topics. In addition, he has played the role of systems engineer, bringing a whole product together and getting it into production.

Dan currently holds an FCC Extra Class license (KW2T), and has for 50 years. He previously held a First Class commercial license.

Dan's past positions include Harris/RF Comm, where he worked on military HF 2-way radios and antennas; Axcera, where he was VP of Engineering and CTO for a broadcast transmitter company, building high power RF systems from 50-2500 MHz; Draper Labs, where he worked on 99 GHz body-worn radar and very small HF-UHF radios and antennas; AeroAstro, a small satellite company where he served as Chief Electrical Engineer and worked on space-based power busses, L-band comms, and radar systems; The National Superconducting Cyclotron Lab where he redesigned part of the megawatt RF field generation system; the National Radio Astronomy Observatory, where he worked with cryogenically cooled RF front ends, from 1-50 GHz, including on the world's largest steerable antenna, the 100 meter GBT.

Dan has taken many products through full FCC Part 15, EU EN-61000, and CISPR11 standards approvals. With 8 patents, his hardware designs are found in most public buildings, in hospitals and universities, and in low earth orbit. He has taken the highest level electromagnetics courses offered at Michigan State, where he worked on the world's highest energy ion accelerator at the National Superconducting Cyclotron Lab. And last but not least, Dan also holds an FAA Part 107 drone license.

Dan has the required experience to deal with radio spectrum measurement and control, and RF interference causes and effects necessary to successfully implement this field testing.