Harvard Undergraduate Data Analytics Group

# [Skygrid/Boeing]

SKYGRID | A Boeing, SparkCognition Company.

SkyGrid, a Boeing SparkCognition Company, is building an advanced airspace integration system, "Jupiter," that will safely integrate remotely piloted aircraft into civilian airspace. The system is being built to develop functions with the adequate level of safety to enable operational approval of remotely piloted aircraft by domestic and international regulators.

## Project Description

The goal of this project is to accurately model and estimate the future global market size for Jupiter, SkyGrid's UAV airspace integration system, and develop a simulation model for scenario-testing which dynamically forecasts future market conditions depending on user-adjustable input variables and assumptions. Two case teams will be assigned to this case.

- Estimate and validate future product market size through a bottom-up approach. Conduct thorough market research and studies on the business landscape, followed by quantitative estimation of the market using a combination of independently collected and SkyGrid provided datasets.
- Research and develop pricing models and recommendations for Jupiter, taking into account cost-savings and prior-work performed on forecasting the market.
- Develop a model which enables the client to model how combinations and perturbations regarding input variables and assumptions alter the estimated market conditions and economics.

**Internal Partners:** Program Integration Manager (Nadine Akari), Corporate Strategy Manager (Rachel Mauch)

**Datasets:**

Airplane data (cargo forms, aircraft airtime, FAA flight hours, operational cost per flight, costing inputs for model)

Skygrid's prior analysis and work.

**Coding Languages:** Python, Excel.

**Specific Skills**

1. Market and business research; Phase 1, 2
2. Data visualization
3. Statistics: scenario modeling/simulations (e.g. Monte Carlo simulation)

Expected Technical Difficulty: **Advanced**