Algorithm to Optimize Drone Delivery

**Motivation / Background**
- Truck-and-drones synchronized delivery is a promising solution for last-mile delivery in some urban centers.
- Quick and accurate network cost optimization is necessary to guide development/implementation decision-making.

**Key Question / Hypothesis**
How much can truck-and-drone delivery system save over traditional trucks? What factors most determine this?

**Methodology**

**Expected Contribution**
- Develop efficient algorithm to evaluate truck-and-drone synchronized delivery optimality.
- Justify or dispel the value of this specific truck-and-drone paired delivery implementation to real-world sized problems.
- Sensitivity analysis around dynamics of market and technological constraints.

**Initial Results**
Solution 3004 ≈ 40% improvement Sensitivity to drone cost-to-fly

**Relevant Literature**