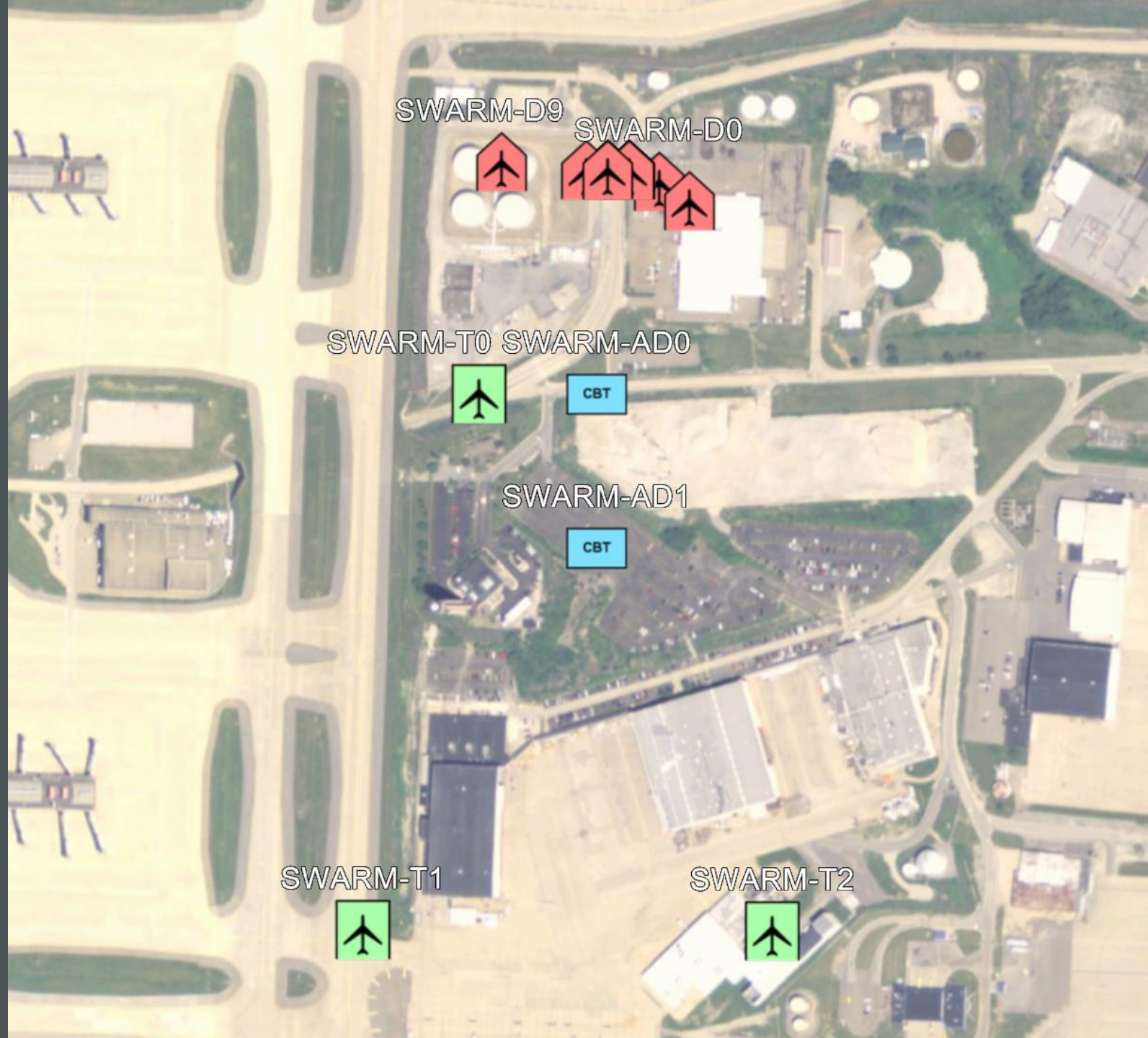# RESOURCE ALLOCATION

Hackathon

SETTING

- Defense against overwhelming drone attack
- Imperfect information
- Allocation of resources

ESCHER – REGRET MINIMIZATION

- Turn based Game: Attacker vs. Defender

  - 1. Defender positions air defense

  - 2. Attacker chooses targets

  - 3. Defender chooses which drones it tries to intercept

- All interactions modeled probabilistically

- Convergence to Nash Equilibrium

$$u_1(\sigma) \geq \max_{\{\sigma' \in \Sigma_1\}} u_1(\sigma_1', \sigma_2)$$