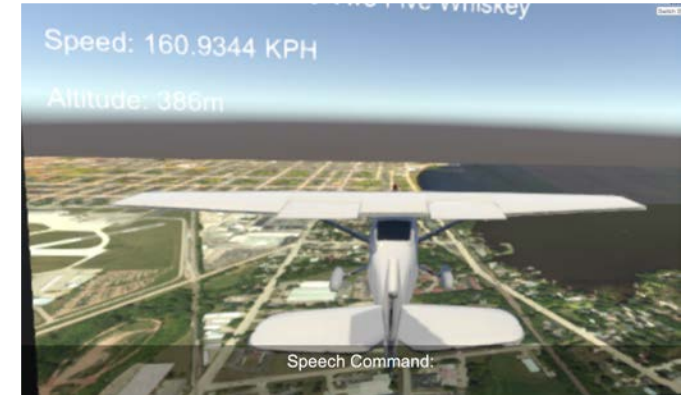


Gamification in Training

1. Introduction

2. Identified Gaps

- a. Extensive knowledge base on training adults, work being done on working with the younger population
- b. Rigorous work is needed on quantifying learning and performance gains with serious gaming
- c. No work to date on using of AR or VR with aviation safety



Cessna in flight



Aircraft samples on tarmac

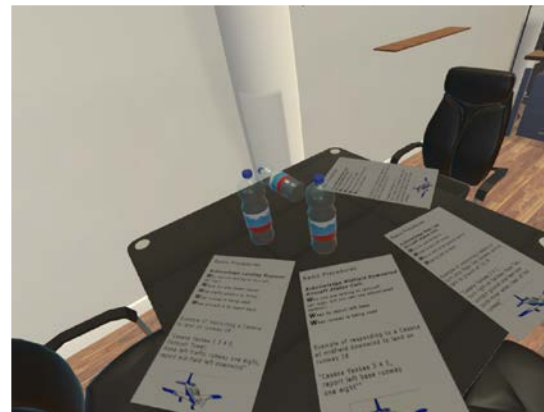
Gamification in Training

3. Future issues in training management, delivery, technology, safety

- a. Unable to fill slots, mass retirements, needs will increase
- b. Training slots full, success rate low
- c. Need state of the art training to attract best and brightest recruits and improve success rates



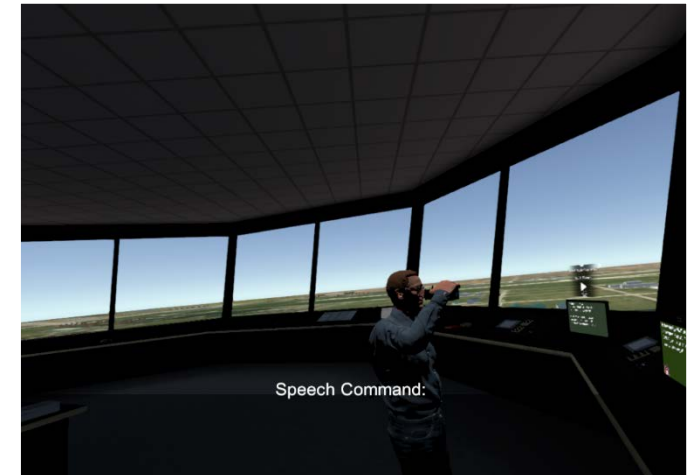
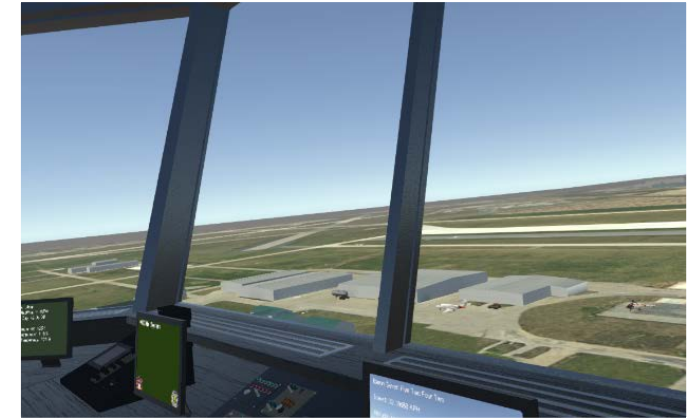
Sample of pop-up menus and ATC lounge



Gamification in Training

4. Solutions driving critical change

- a. Provides state of the art training, maximizing resources, improving recruitment and job performance
- b. Same program can be used for all aviation safety training, findings from other work can be inserted (e.g. weather)
- c. Provides uniform, cost efficient training across multiple locations. Individualized to work on issues students find difficult, instructors can watch and insert new scenarios
- d. Current safety professionals can use the product for recertification and training updates; on phones, tablets, laptops, etc., completion info inserted into training file



Gamification in Training

5. How will this project inform/drive NAS changes

- a. Leadership through state-of-the-art training
- b. System is nimble and adaptable
- c. Dynamic, strategic training creates flexible, critical thinkers able to quickly respond, improving efficient use of airspace and improved safety
- d. The system can continue to be updated, with new scenarios added to address unforeseen circumstances and new challenges (e.g. UAS)
- e. As new systems and procedures are developed for NAS, they can be immediately implemented into training, decreasing time to full implementation
- f. The 'workforce' and training is the most critical piece of the NAS future



Future use of AR with aviation maintenance and safety inspection