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Model ICAO Forum

Stream 1 Unmanned Aviation System

Working Group #3

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Bridge Inspection

Montreal
28 November 2017



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Case Presentation

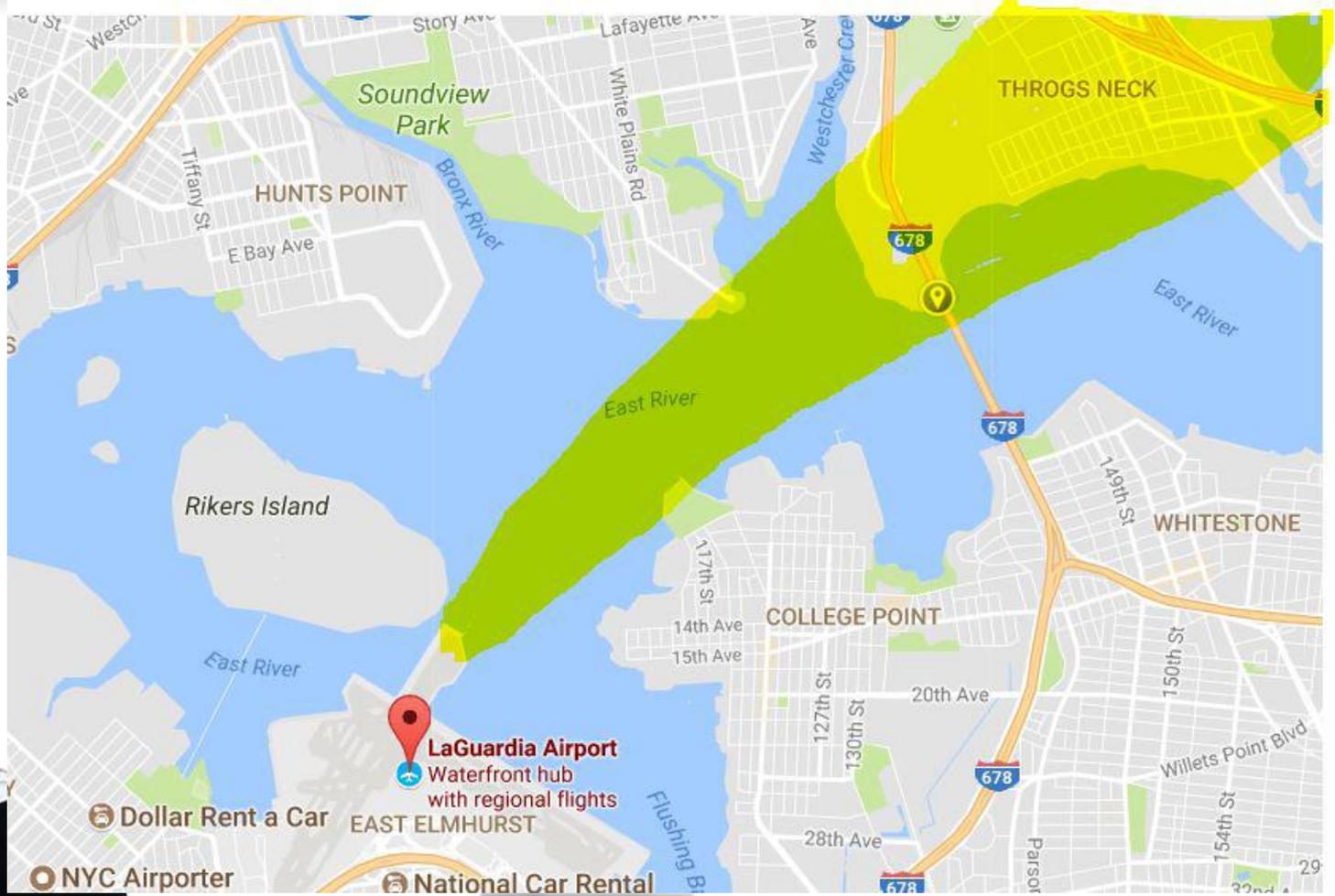
- Bridge Inspection
- UAS Drone
- Close to airport (5 NM to LGA)
- Close to flight path of descending airplanes
- Predict and manage hazards



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Background

- What are the hazards that can occur?
 - Interference with airport traffic
 - Ground obstacles
 - Weather (Wind, Fog, Rain, etc)
 - Proximity to Bridge
 - Loss of Control
 - UAS Pilot / Human Error



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Proposed Solution

- Restrict Operating Zone of UAS
- Notify Airport Control Tower of UAS
- Require cooperation with local transportation authority for road traffic control
- Limit flight time to 5 min prior to battery depletion
- Test Fail Safe Return to Home mode before operation
- Pilots should be certified and well rested before operation
- Limit distance between drone and closest obstacle to 30ft (10m)
- Limit to Visual Line of Sight Operation



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Execution of Steps

- Operator submits form
- CAA approves form along with requirements for safe execution
- CAA notifies Airport Control Tower of operation
- CAA agent oversees/inspects operation
- Operation executed successfully
- Operator gives feedback for future cases



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Expected Outcome

- 1: Operation conducted successfully
 - Permit issued, operation monitored, no physical damage
- 2: Emergency Procedures
 - Drone loss of control / crash
 - Human Injury
- 3: Fly away
 - Fine operator



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Thank you for your attention

