



USCG Office of Aviation Forces  
Unmanned Aircraft Systems (UAS)



# Coast Guard UAS Programs



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## Long-Range UAS

- Wide area surveillance for the Area Commander
- Beyond Radio Line of Sight C2 link (SATCOM)
- 24 hour endurance



5000'

## Medium-Range UAS

- On demand support for the tactical commander
- Beyond Visual Line of Sight C2 link (Radio)
- 12+ hour endurance



400'

## Short-Range UAS

- Personal, portable system
- Visual Line of Sight C2 link (Radio/Wifi)
- 20-30 minute endurance







# Long-Range (LR-UAS)





# Long-Range UAS Program

## Joint Program Office (JPO)

- All aircraft and equipment owned by CBP
- Joint MQ-9 operations with CBP: 4 Pilots / 10 Sensor Operators (SO)
- CG Personnel stationed with CBP at National Air Security Operations Center (NASOC) in San Angelo, TX
- CG aircrew serve as:
  - Pilots, Sensor Operators, Instructors
- Mission:
  - CONUS land border
  - Maritime border
- Challenges
  - Limited maritime hours
  - Cost prohibitive
  - Airspace/ see and avoid







# Medium-Range (MR-UAS)





# Medium-Range UAS Program

- UAS on National Security Cutters (NSC)
  - 12 hour endurance per day
  - 2 NSCs operational by end of FY19, entire fleet by FY21 (11 NSCs)
  - Contractor owned and operated
  - GCS and live video is in CIC, but no integration
    - Data delivered via portable hard drive
- No current solution or requirement for integration or piping data off NSC
- Future to include space, weight, and power for UAS on Offshore Patrol Cutters and Polar Security Cutters

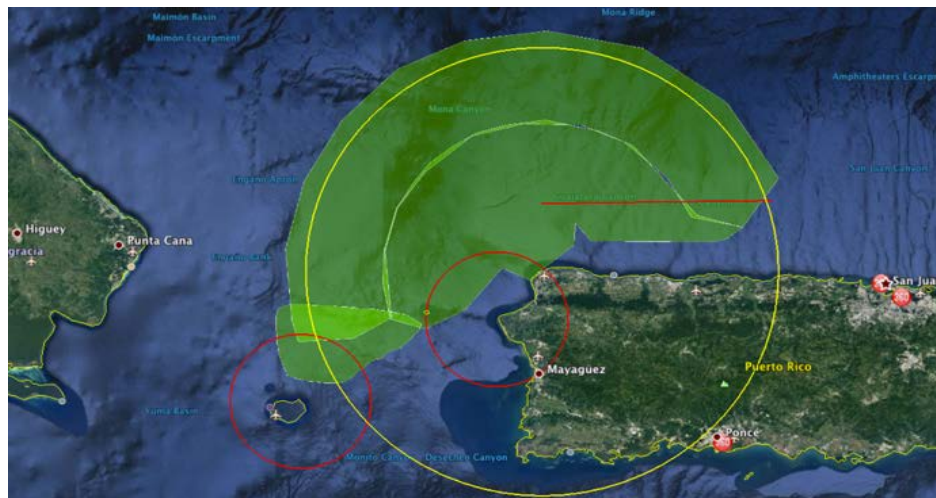




# Medium-Range UAS Program

- Land-based Medium-Range UAS
  - Proof of concept operations in Puerto Rico (2018), Southern Texas (2019), and Southern CA (2019)
  - Used BigPipe to disseminate data to TACON (Sector)
  - FY20 funding TBD

- Challenges
  - Airspace
  - See and avoid







# Short-Range (SR-UAS)







# SR-UAS Program

- Commercial off-the-shelf (\$1-2K)
- Short range, 1 mile, 30 min endurance
- Minimal training (FAA Part 107)
- Seven prototype units in FY18
- Eleven more units fielded in FY19
- Fleet-wide implementation by end of FY20
- Need for US made, low cost options





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Questions?

