Unmanned Aerial Systems and Airport Master Plans

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The “Drones” are coming...

- UAS mainly used by US military until recent years
- Much promise for civilian UASs
  - Pipelines
  - Security/law enforcement
  - Firefighting
  - Agriculture
  - Freight
UAS and Airports

- Need to safely integrate UAS into the NAS
- Potential for simultaneous operations of UAS and conventional aircraft in and around airports
Purpose & Methods

* Investigative research study to establish best practices that may lead to a model for integrating UAS operations into airport master plans.

* Qualitative, observational, and case analysis to determine best ways to incorporate UAS integration into the airport planning process, specifically airport master plans.
Specific requirements for a “UAS friendly” operational environment and its impact on an airport master plan will be evaluated at Fallon Municipal Airport, Fallon, NV.

Silver Springs Airport, Silver Springs, NV.
Consultant on airport master plan development
City of Fallon Public Works Director
- City seeking to make airport more attractive to revenue streams
- UAS is an option due to airport location
Fallon Airport

- Identified advantages:
  - Limited Air Traffic Control issues
  - Airport suited to handle groups 2, 3, & 4 UAS
  - Possible funding from state and federal sources
  - Multiple possible applications of UAS
Fallon Airport
Staging and Support
Airport owner/manager
* Want airport to be UAS friendly
* Multiple operators interested

Identified advantages:
* Flat open terrain
* Ideal operating areas nearby
* Plenty of expansion capabilities
Both airports appear to have the traffic volume, facilities, proximity to transportation, and access to allow operators to set up launch and recover, control, and communications facilities.

At both sites, it is likely that external power (generators) would be the most effectual means of provision of electricity (Fallon has more options).
Findings

- In both cases, it is likely that the airport management (Fallon – the city, Silver Springs – private owners) would need to make improvements to the airport to better facilitate UAS operations.
- Neither airport has significant staging areas or office/shelter space for users.
Conclusions

- Airports need to plan for UAS
- Need to integrate UAS in their airport master plans
- Identify/evaluate potential of airport and facilities to handle UAS
- Make plans for possible UAS transient or based operations