NCHRP 20-68A
“US Domestic Scan Program”
Domestic Scan 17-01

“Successful Approaches for the Use of Unmanned Aerial Systems by Surface Transportation Agencies”

Findings, Conclusions and Recommendations
Scan 17-01 Team Members Home States and selected host/invited states

- Team Member Home State
- Primary Study Sites
- Possible additional study sites (time allowing)
NCHRP Panel
General Guidance to Scan Team

• “This scan will visit users of [unmanned aircraft] and document their specific application... Information to be gathered would include but not be limited to:
  – Documenting why, how, and where are they are using this technology for inspection, inventory, survey, etc.
  – How the data is being stored and used
  – What control method is being used (remote control or autonomous).
  – What attached devices are being used (i.e. HD cameras, video cameras, LiDAR, etc.)
  – Who is the Owner/Operator of the UAS: (agencies, Contractors, Consultants, and/or Universities)
  – Costs and realized Benefits
  – Barriers, obstacles and opportunities experienced in deployment”
NCHRP Panel
Anticipated Outcomes

“The scan focus and objectives shall provide a better understanding of the proactive use of this technology as well as the return on investment and its benefits to the surface transportation community. This scan will assist the accelerated national deployment of the technology by providing “Getting Started” guidance and case studies of successful applications of UAS. The scan will also provide valuable information concerning where additional development and research might be needed to support the increased use of this technology.”
Summary of Initial Findings

- Findings presented here were gleaned from four days of presentations, group discussions and participant notes.
- The scan team settled on the seven themes below for “Getting Started with UAS.”
  1) Executive Support
  2) Organizational Structure
  3) Policy and Regulation
  4) Safety and Risk Management
  5) Training and Crew Qualifications
  6) Public Relations
  7) Application and Operation
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Final Conclusions

• Invited and host state transportation agencies have collectively developed significant use cases for sUAS which supplement their surface transportation efforts.
• Future sUAS programs among state transportation agencies should...
  – consider further validation of these applications with rigorous cost-benefit analysis as well as
  – investigate whether sUAS data can be suitable for meeting industry standards.