



Small UAS Airspace Integration Technologies

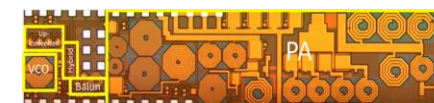
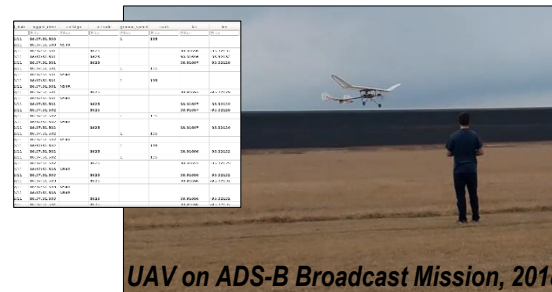
Investor Pitch/ UAS Tech Forum

August 2019

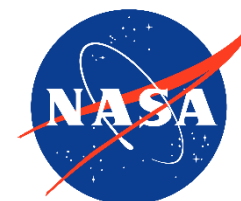
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KalScott's Team and Facilities for UAS Projects

- Based in Lawrence, KS, formed in 2002
- 25+ years of aero/defense engineering, specializing in RDT&E of UAS technologies
- Government and civilian clients
- 8 USAF and NASA projects on ADS-B since 2006 (AFRL Phase II and NASA Phase I currently)
- Working with large telecom industry leader for UAS/Smart Vehicles
- Access to test facilities at NUAIR/ Griffiss (Rome NY) , plus local facilities in Kansas



CMOS ADS-B Transmitter Chip for micro UAVs, 2014

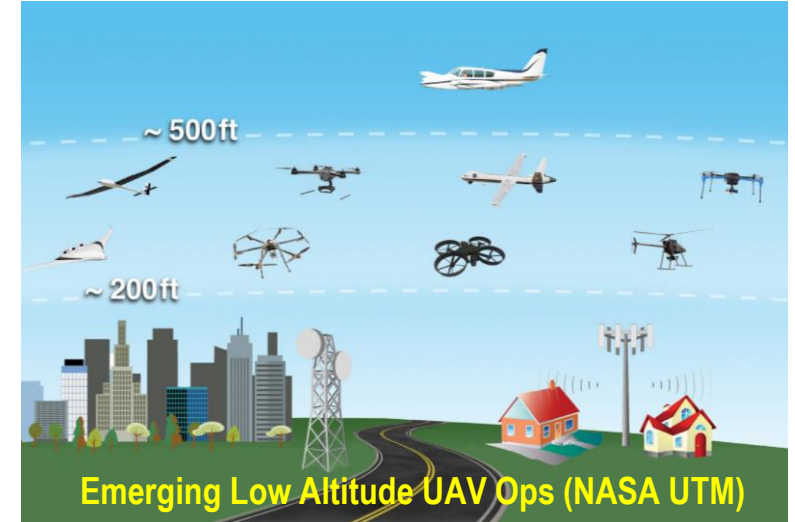


The Emerging UAS “Flood”

New Solutions Are Needed for Large Scale Expansion of Small UAV Operations !

- FAA* projects ~1M non-hobby UAVs registered in USA by 2023, and ~1.5M hobby/recreational UAVs
- FAA* projects about 150K small UAV missions per day
- 90% are small (~2-5 kg) and low-cost (\$2.5-\$10K), and limited in size and power
- Most of these operate below 400 feet, for short ranges (0.5-10 miles)
- FAA wants Remote ID and position reporting capability

[*https://www.faa.gov/data_research/aviation/aerospace_forecasts/media/unmanned_aircraft_systems.pdf](https://www.faa.gov/data_research/aviation/aerospace_forecasts/media/unmanned_aircraft_systems.pdf)



THE CURRENT FAA PICTURE

Currently, there are 220K manned aircraft registered in USA

Currently FAAATC handles ~50K flights per day

Flight tracking is now primarily done by radar, which cannot see low-flying aircraft, specially in urban environments

KalScott's UAS Integration Solutions Portfolio

- Low Cost Ground-based ADS-B and ADS-B-Like Network
- Ultra-low Cost, low-SWaP ADS-B In/Out device for small UAVs
- ADS-B-like RemotelD device and app for small UAVs

Current Secured, Non-Dilutive Funding



- \$900 K Phase 1 and 2 USAF SBIR

- \$125K Phase 1 NASA SBIR



Additional SBIR Funding Available:
\$1.3M

Unique, Immediate opportunity for investor:

\$500K leverages over \$1.6M

of USAF, NASA and Kansas investment

Addressable Markets for KalScott's Hardware and Services

- **Prosumer Market:** \$300M in 1-time hardware sales, \$30M in annual subscription fees
- **Hobby/Recreational Market:** \$15M in 1-time hardware sales, \$250K in annual subscription fees
- **Military Market:** \$20M in 1-time hardware sales, \$1.5M in annual subscription fees

Planned Products and Services

- Ultra-low Cost, low-SWaP ADS-B Transponder
 - ADS-B-like RemoteID
- Ground-based ADS-B/ADS-B-like Network Service

Project Costs and Investment Opportunity

SEEKING:

\$500K investment in tranches over
2 years for Equity Position

Development	Funding Secured, \$K	Investor, \$K	Kansas Match, \$K	USAF Match, \$K
ADS-B Hardware and Network	800	500	50	550
Remote ID Hardware and App	100			
ADS-B Chip Hardware	125			
TOTALS	1025	500	50	550

Immediate leverage for investor:

\$500K leverages over \$1.6M

of USAF, NASA and Kansas investment

Additional NASA PHASE II Opportunity: \$1.5M

- Additional \$750K in June 2020
- Phase II NASA Match \$500K in 2022

Additional State of Kansas Incentives

- 10% Match for Investors
- 50% Tax Credits (transferable)

Partnering Sought

- Tranched \$500K equity investment to trigger USAF matching funds
- Clients for R&D and flight testing
- Strategic partners for UAS tech development and testing
- New market and business development ideas

Summary

- Rapidly emerging and growing market
- Strong technical solutions from a high-credibility team
- Unique matching opportunity for investors: \$500K leverages over \$1.6M

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