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Technology and Innovation Deployment Program
STIC Incentive Application Form

2019

Proposal Name: Unmanned Aerial System (UAS) in Traffic Collision Investigation

STIC/State Name: Oklahoma	**FY:** 2019

Innovation: (Describe the innovation that the state is looking to implement on a statewide basis including the purpose and benefit to the state.)

Deploying and utilizing UAS in Traffic Collision Investigation / Reconstruction for Rapid Roadway quick clearance

Description of the Proposed Work: (Describe the scope of work that is to be completed with this funding request, whether this is a complete project or part of a larger phased project, how it will have a statewide impact in making the innovation a standard practice in your state. Only include work that is eligible for STIC Incentive funding.

Research shows that UAS can be very effective and safer in traffic mapping of vehicular highway collisions than conventional methods. With access to the FAA center to get clearance for nighttime flights and restricted zone access, OHP will deploy UAS on all OK Interstates, all Turnpikes, US-69, US-412, and US-70. The UAS concept follows the existing Traffic Incident Management (TIM) protocol. If the anticipated event is longer than EMS need to care for the injured member, the Traffic Homicide Unit (THU) with equipped UAS will be sent to the scene. THU will be responsible for documenting the collision scene. Implementation of UAS will increase the efficiency of collision investigations/reporting involving fatality's where critical interstate and highway collisions occur during nighttime/daytime operations while decreasing the time it takes for the investigation to be completed and opening the roadway quicker.

End Product: (Identify what the final deliverable will be when the project is complete. Include the Expected Outcomes, Benefits and/or Results)

Rapid Roadway Quick Clearance to lower the risk of secondary collisions occurring by reducing the time spent at the collision scene. Increase accuracy in reporting of incidents while clearing roadway quickly and efficiently. The final report will show what was achieved, including outcomes, project timeline, scopes, and statistical benefits of the program.

Proposal Schedule: (Anticipated start date and when will product be delivered? The anticipated project schedule is required. The schedule should show how the work will be advanced in the fiscal year for which the funds are being requested, and the anticipated completion date of the work. This should directly reference each line item in the cost estimate. Applications should only be submitted for projects that are ready to advance if the minimum partial funding request is met.)

Start date will be one month from issuance of funds, and project deliverables will be completed in one year.

Champion(s): (Who will be reporting progress on this work to the state STIC? Progress Reports are to be provided to FHWA every six months, with a Final Report at conclusion of work.)
Capt. Ronnie Hampton - OHP
Jared Schwennesen - ODOT
Richard Jurey - FHWA

Estimated Total Cost: $109,500	**Amount of STIC Funds Requested:**	$60,000

Estimated Total Cost/Budget Breakdown: (Provide a cost estimate that is reflective of the total cost of the proposed work by line item. Each line item should be associated with a completed task, deliverable, or outcome that contributes to the completed funding request. In the event that partial funding is available, this information will aid in the development of funding recommendations and provide the applicant the opportunity to fully complete individual components of the funding request. If the applicant is willing to accept partial funding of the request then that should be indicated as well.)

The cost of (12) Mavic 2 Pro devices with nighttime/high sunlight capabilities is $33,200
The cost of (4) RTK Devices for poor weather conditions is $26,800
The cost of (1) Mavic Pro dual enterprise - $4,500
The cost of (1) Nighttime/daytime larger drone - $45,000
Total Cost $109,500

Source of Other Funds or Sponsors: (20% match required. Indicate the amounts and sources of any private or other public funding and/or third party in-kind services being provided as part of this project. Only indicate those amounts of funding that are firm and documented commitments from the entity controlling the funds.)

OHP - $49,500