

STEReO

combining NASA technologies and partnerships to transform
current-day emergency response operations



emergency response operations aren't easy:

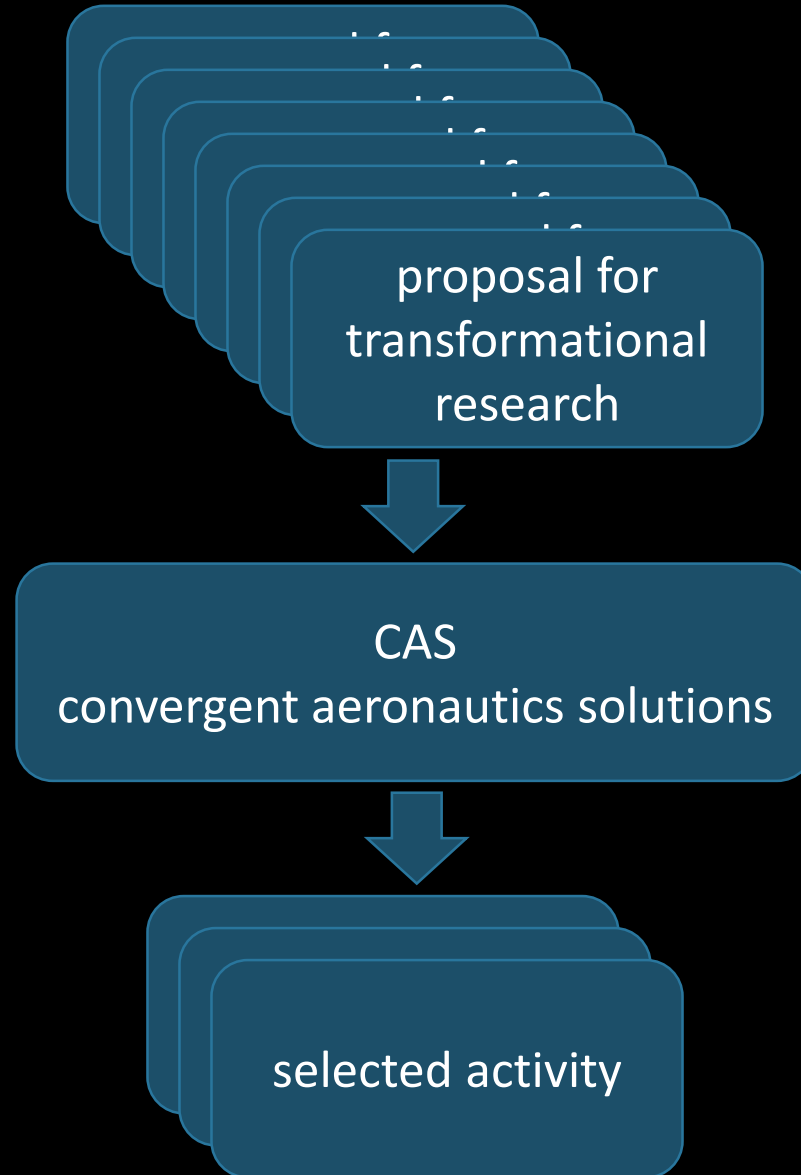
- conducted under adverse conditions
- involve numerous organizations
- limited communication and infrastructure
- manual coordination to deconflict/use airspace
- challenges with timeliness of information

the result? safe procedures with minimal technological advances



use innovative communication approaches to enable new traffic management and autonomous vehicle capabilities, providing a data-rich common operating picture

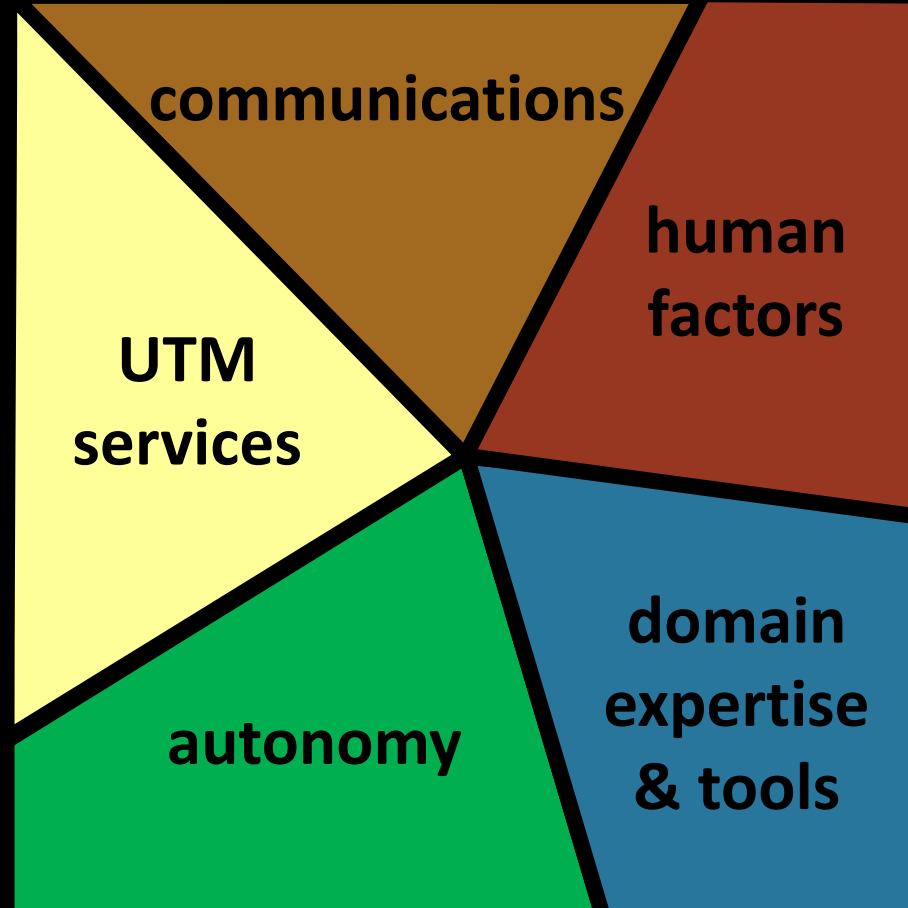
the result? responders can do more, know more, safely



STEReO as a product



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- how can state-of-the-art vehicle autonomy help UAS vehicles become a valuable part of emergency response operations?
 - what is the state-of-the-art?
 - what hurdles do we need to consider?
 - what are the ripe opportunities?



- how can UTM services be leveraged to support scalability of operations, and to provide improved awareness via an enhanced common operating picture?
 - what capabilities do UTM services provide?
 - how do they relate to today's procedures for airspace coordination?
 - what new capabilities can be added to UTM services that address the unique needs of emergency responders?



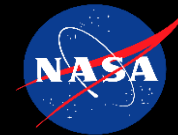
- how can advanced communication/connectivity technologies enable new data exchanges and information sharing?
 - what data do we want to send?
 - what infrastructure/techniques can we employ to send that data?
 - how can we support resilient operations/communications in challenging environments?



- how can data be delivered to best support operator awareness and decision-making?
 - what types of collaborations occur today?
 - what interfaces are the most appropriate for data-supported tasks?
 - what information must be included to support effective teamwork between operators, between systems, and between operators and systems?



- how can new processes, products, and options be integrated into existing workflows that are critical to established operations?
 - what things are used today?
 - where are there flexibilities and constraints?
 - what are the needs for interoperability/sharing?



- Ames Research Center

- yasmin arbab
- josh baculi
- anjan chakrabarty
- lauren claudatos
- corey ippolito
- george lawton
- joey mercer

- Glenn Research Center

- chuck sheehe

- Langley Research Center

- dave bradley
- lou glabb
- robert mcswain
- bryan petty



- agenda review...
- access to guest wi-fi...
- visitor badges...
- lunch options...
- networking session...
- social outing...
- questions?

STEReO

scalable traffic management for emergency response operations



project deliverables!

- stakeholder workshop
- initial airborne feasibility assessment
- v1 conops document
- simulation/walkthrough of flight demonstration's scenario
- **FLIGHT DEMONSTRATION** (wildland fire use case)
- simulation exercise (hurricane use case)
- v2 conops document



conops working group!

- focus areas:
 - capturing the needs from the user community
 - identifying use-cases to properly scope the document
- alignment needs:
 - coordination with many, many agencies
- logistics:
 - charter?
 - membership?
 - meetings/schedule?



partnerships!

- communication solution providers
- emergency response organizations
- insurance companies?
- regulators
- technology companies
- UAS service suppliers
- utility companies
- vehicle operators
- other connections?



logistics!

- attendance list -> mailing list
- distribution of slides
- partner-led 'events of opportunity'
- other?

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