



END STATE
S O L U T I O N S

Fit-for-purpose Airworthiness Certification



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Who is End State Solutions?

- Synthesize Certification Strategy with Action
- Create the artifacts necessary for TC/PC/SRM/SMS/Part 11/§91.113(b)
- Some historic accomplishments
 - Matternet TC / PC 2022
 - ScanEagle TC RCAT 2012
 - Alaska Commercial BVLOS Waiver w/ConocoPhillips 2012-2015
 - New Mexico BVLOS Waiver w/BNSF 2015
 - Eagle Creek and Tubbs Fires BVLOS 2017
 - Hurricane Harvey BVLOS 2017
- Clients from Drone, UAS, AAM, and High Altitude segments

Where is FAA Type Certification Today?

- 14CFR§21.17(b) – Designation of applicable regulations
 - Durability and Reliability (D&R)
 - EASA Design Verification SAIL III, IV?
 - Application of the Concept of Operations - Risk Based?
 - Associated Elements Policy Memorandum AIR600-21-AIR-600-PM01
 - Limited to the “small” products under D&R?
 - Definition of an Aircraft
 - Is the control station necessarily a part of the aircraft?
 - What is the challenge we are attempting to overcome?
 - What are the consequences?

Impacts to International Approvals

- Removal of the Ground Control Station from the design approval and placing it under an operational approval
 - Perpetual exemptions and waivers
 - Contrary to Annex 8 amendment 108
- Operations over the high seas
 - FAA interpretation Over the High Seas = International
 - FAA position that it does not have the authority to grant permission for RPAS/UAS with a Special Certificate of Airworthiness for international flight, therefore can't grant authority for high seas
 - Does operation over the high seas qualify as international flight?

Impacts to Domestic Operational Approvals

- Air Risk
 - Mitigations for Midair Collision Avoidance
 - Need for a policy that defines credit for traffic density
 - Assessment of detection and avoidance functions are divided
 - Associated Elements and core elements of product certification?
- Ground Risk
 - A clear path to routine flight over a given population density should be apparent through Durability and Reliability Type Certification

***Helping clients see through the
smoke and achieve their desired
END STATE.***



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