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Drone Remote Identification Protocol (DRIP)

tm-rid@ietf.org (Trustworthy Multipurpose Remote ID)

<https://datatracker.ietf.org/wg/drip>

interim meeting 2020 JUN 24

draft-ietf-drip-reqs-01 & -arch-02

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Identify & track [cooperative] [dangerous] [mobile] [physical] objects.

Reported MAY 27 as “In progress”

- Confirm definitions from user community standards esp. ICAO
- **Coordinate w/ICAO Trust Framework Study Group (DI, GRAIN, TRON)**
- Focus on registration
- Expand CS-RID coverage?
- Get serious about Observer to Pilot comms?
- Discussion/limitations section?
- Organize set of related drafts
- **Add more authors! Get more comments!**

Some Issues Raised on or after MAY 27

- **Clarify definitions of UAS Operator vs Pilot in Command vs Remote Pilot**
- **Clarify that Observer may be**
 - **Aboard a manned aircraft**
 - **[Operating] another UAS**
- **Document uses cases [not] justifying Observer to Pilot (O2P) comms**

Keeping in mind points above
- **Liaison w/RTCA & EUROCAE?**

News since MAY 27

- US Dep't of Transportation (parent of FAA) releases “Blockchain for UAS”
actually a month earlier but I just learned of it, Chapter 3 is relevant
- FAA RFI “Low Altitude Manned Aviator Participation In UAS RID”
also actually a month earlier but I just learned of it
- Several US Federal agencies pushing back on the FAA NPRM
one agency cataloged many public comments (inc. ours) w/which they agree
- ASTM draft standard 0.1 on UTM circulated MAY 30
relevant insofar as UAS RID is a major function/subsystem of UTM
- EASA ToR RMT.0230 released JUN 04, broad scope
“Regulatory framework to accommodate unmanned aircraft systems in the European aviation system”
- EUROCAE WG-105 MOPS for UAS e-ID circulated JUN 07 for consultation by AUG 05
focused on safety vs prior “Direct Remote ID” focused on security (aviation regards former as higher bar)

Summary of Activity since MAY 27

Work

- “Architectural implications of EASA requirements” section in –arch (thanks Andrei!)
- IETF in ANSI UAS Standardization Collaborative (UASSC) Roadmap v2 (thanks Bob!)
- Prototype of Operator & UA registration, cert issuance, DNS HIP RR, etc. (thanks Adam!)
- Registration Operations Workshop (ROW#9) presentation (our plea to them for help!)
- Semi-weekly intense liaison w/International Civil Aviation Organization (ICAO) Aviation Trust Framework Study Group (IATF/TFSG)
 - Global Resilient Aviation Interoperable Network (GRAIN): an internet for the aviation ecosystem
 - Trust Reciprocity Operational Needs (TRON) / Digital Identity (DI): standard identifier for *all* aircraft!

Backlog

- Harmonize –reqs terminology w/ICAO
- Reflect inputs from AD, 2 WG co-chairs, 5 draft co-authors, 20 others
 - jabber logs & minutes from 3 previous meetings (all parsed, but few items addressed as yet)
 - 50 emails (of 500 DRIP-related received by me since previous meeting, but very few on tm-rid@ietf.org list)

DRIP Privacy Requirements

- **PRIV-1 Confidential Handling**

DRIP MUST enable confidential handling of private information (i.e. any and all information designated by neither cognizant authority nor the information owner as public, e.g. personal data).

- **PRIV-2 Encrypted Transport**

DRIP MUST enable selective strong encryption of private data in motion in such a manner that only authorized actors can recover it. If transport is via IP, then encryption MUST be end-to-end, at or above the IP layer.

- **PRIV-3 Encrypted Storage**

DRIP SHOULD enable selective strong encryption of private data at rest in such a manner that only authorized actors can recover it.

- **Keep this requirement as written above?**
- **Delete it?**
- **Rewrite it?**