Internet use by Aviation Routing Storm Risks

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A NEW ERA IN AVIATION

• Demand, including new entrants

GLOBAL AIR TRAFFIC (TRILLION REVENUE PASSENGER KILOMETRES)
Traffic is expected to double in the next 15 years

Source: International Civil Aviation Organization (ICAO)/Airbus 2015

World Civil UAS Production Forecast
Problem Statement (for aviation)

AVIATION TODAY

- Specific systems and networks
- Point to point communication
- Physical infrastructure
- Low connectivity
- Limited Automation with user oversight

= Low exposure
Limited impact

FUTURE OF AVIATION

- Multi-stakeholder system of systems
- Public networks
- Increased use of COTS and standard protocols
- Virtual infrastructure
- High connectivity
- Increased Automation with minimum user oversight

= High exposure
High impact
Problem (?) (for IETF)

- Commercial aircraft avg speed: 480 Kt.
- Only in US: 5000 flights simultaneously.
- Around 100,000 flights a day worldwide.
- No recognition of borders for information exchange.
- Average flight distance: 1200 NM.
- Longest flight: 9500 NM – 19 Hours
Thank you

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