ATIS’ UAS Program

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Advancing the Information and Communications Industry Transformation

In a rapidly changing industry, innovation needs a home. ATIS is a forum where technology companies convene to find solutions to their most pressing shared challenges.
Unmanned Aerial Vehicle (UAV) Scope

- Identify areas where common industry positions bring value.
- Avoid areas with potential for competitive differentiation.
- Focus:
  - Requirements
  - Services

Initial ATIS Focus: Small Remote Controlled UAVs, including tethered

- Low Earth and GEO Satellites: ~600,000 ft. & above
- High Altitude Platform Systems (HAPS): ~60,000 ft.
- Commercial Jet Aircraft (for reference): ~30,000 ft.
- Medium Altitude Long-Endurance UAV: ~10,000 ft.
- Small Remote Controlled UAVs, including tethered: 200-400 ft.
ATIS UAV Focus

Command and Control

- Remote Control
  - Beyond line of sight
- Regulatory Compliance
  - Identification
  - Location service
  - Flight planning & collision avoidance
  - Airspace enforcement
- Formation flying
- Status monitoring

Payload

- Video (HD, 3D)
- Environmental information/surveys
- Control of actuators
- UAV-delivered communications services
  - Backhaul
  - Peer-to-peer
Example Requirements

**Cellular support for UAV control**
- Reliable transmission
- Low latency
- Capacity for all UAVs
- Coverage/range
- Resistance to interference
- Fail-safe operation

**Location Services**
- Location accuracy (3 axis)
- Location update rates
- Real-time navigation and reporting
- Coverage in critical areas
- Performance across a range of environments
- Reliability and availability of signal
- Redundancy
- Cost and mass market availability
Summary

• UAV effort is part of ATIS focus on ICT transformation over next five years.
• Initial focus on small UAVs below 400 feet:
  – Including beyond-line-of-sight and controlled airspace
  – Initial report to be published in 3Q 2017
• Strong participation by service providers and vendors:
Backup
ATIS’ Industry Leadership

• ATIS has a vital role in digital society’s connected communications:

Users connect to the network through multiple devices.

Technology companies build and operate these networks and devices, delivering the data and communication services on which users rely.

ATIS' mission brings these companies together to make this intelligent connectivity possible.

Members work together to develop the solutions and standards to ensure networks and devices speak the same language to interconnect.
ATIS Members Represent the Entire ICT Ecosystem