GIS Network Meeting, 9/14/19

Location: Pope Park – Hartford, CT

Attendance –

9:15 – 9:30 Committee Updates:

Standards
Stormwater Standards Working Group met earlier this week

Communications
New Website. Contact Steve Birney or Kristen Ponak to add content

Education Committee
October 19th - Rocky Hill Town Hall - Stormwater Mapping Requirements
Inviting vendors
GIS Day
      ESRI workshop (2) - Registration
           Operations Dashboards
           Web App Builder
      Limebike, Fleet Feet
      Mappy Hour - Arch Street Tavern
      Looking for sponsors for Coffee and Cake
      Poster Session

Data Acquisition and Advocacy
      Spring 2019 Flight
      CT, MA, RI
           USGS, NRCS, State of RI, State of MA, State of CT
      Imagery - similar specifications to 2016 Flight

9:30 – 10:15 FirstNet
      Michael Varney
      Director of Field Operations

Communication Issues - 9/11 brought to forefront

2012 - Police Chiefs, Fire Chiefs, ICMA, - Middle Income Tax bill.
    $7Billion - and 20 Mhz Spectrum

2012-2015 - Outreach to public safety community

2015-2016 - Nationwide RFP

2017 - Awarded to AT&T

Public Safety LTE Network

Plus everything on AT&T's network

5 Year Build Plan
1000 macro sites
Specific to each state

Additional sites location determined by State's public safety interoperability group
40,000 WiFi Hotspots
6,000 Distributed Antenna Systems
MetroCell Solutions

3 Mobile Sit

Priority and Preemption plus no throttling across all AT&T LTE bands

FirstNet Core Launched March 2018
Physical core infrastructure
Standalone security operations center

Local Control Portal
Application Catalog
Internal certification check
API, SDK's,
Developer Portal
No Fee's

QPP
Quality of Service
Priority
True, ruthless Preemption

Devices
Popular smartphones
Anything that will run 4G LTE

Eligibility
Primary - first responders
Extended Primary - ESF's, NGO's
Can put personal device on Network

Future
Budgeted for the next 25 Years
Board of 15

FY2019 Priorities
Network buildout
Public Safety Advocacy

Innovation
Reinvestment

Individual Engagements with Public Organizations

10:30 – 11:15 City of Hartford - GeoEvent Server

Incoming Adaptors
Filter/Processors
Output Connectors

Quality of Life App
Call Before You Dig

Open Sourced on GITHUB
Compiled to 10.5

Event based data collection
Garbage collection -

Sensor based data collection
Air Temperature
Road temperature
Humidity

Raspberry Pie

11:15 - 12:00 UAS Technology Beyond the Flight

Drone technology is an extension of geospatial
Started program in 2012
Utility Sector - Mega Programs

FAA Moved rapidly to making easier.
Over 100K licensed pilots

Use case for UAS Services

UAS Payloads.
Thermal imagery
NIR
Multispectral
Chemical detection
Aerial LiDAR
RGB Corridor Imagery
Photo Documentation

Video Documentation
Detection Modelling
Underwater Mapping
Spray Technology

Post Processing largest element of a UAS Project

Current Commercial Regulations
14 CFR-Part 107 rules effective August 29, 2016

FAA Airspace Mission Planning Tool

Risk Management
Significant
Assess Risk Prior to Each Flight

Sitewide Aerial Surveys
Two methods.
Fixed Wing - Large Area
Rotary Blade - Isolated area.   High resolution camera.

Volumetric Calculations

3D Model of structures - Communication towers, Utility Structures

Safe Remote Inspections
High Resolution

Resolution and Accuracy
Less than 1" resolution

Flying less than 400' ABG

Survey Ground Control, Open GPS, RTK GPS in Drone

Virtual Reality / Augmented Reality

Payloads
Thermal Inspection
Solar Farms, Power plants
Near Infrared
Restoration analysis
Multispectral Analysis
Archaeological and Cultural Inspections
Wildlife Surveys

Construction Management and Monitoring