CITY OF STILLWATER

Small Unmanned Aerial Systems

PROGRAM CONCEPTION

- We researched and communicated with other EM departments that had implemented sUAS in their fleet.
- We researched policy, deployment procedures and federal regulations
- We approached the state to see if there were funds available for the purchase
- We approached leadership, who thought the idea of a "drone" was a toy and would not be a benefit to our city.
- We got enough buy in to purchase our first aircraft for $2,000.00.
- We originally purchased a sUAS to assist with fire support
- We purchased a DJI Phantom 3

PROGRAM CONCEPTION

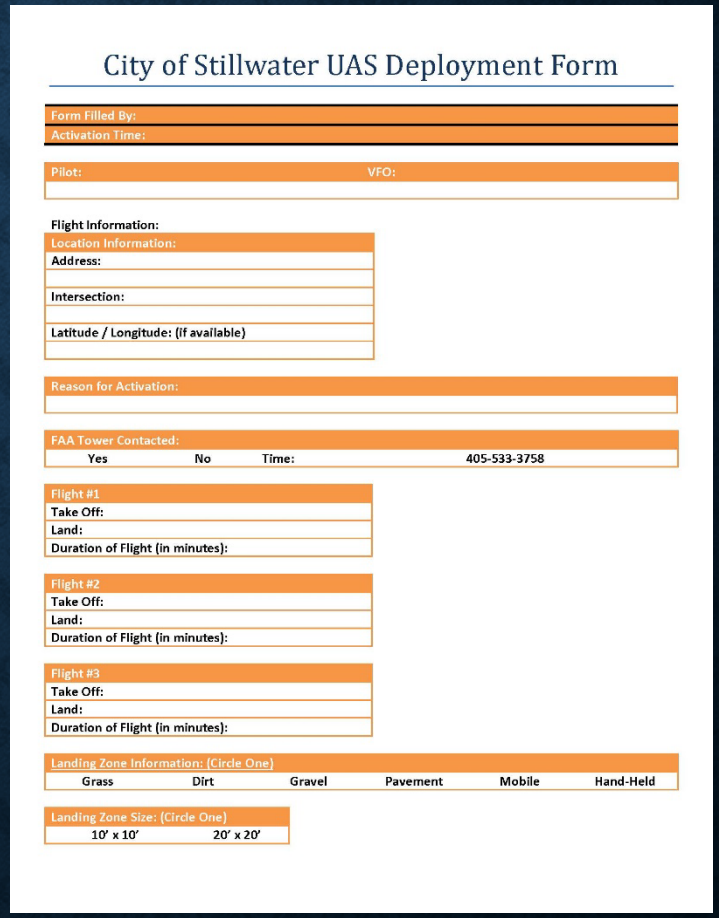
- We wanted to be able to deploy the aircraft to see the spread of wildfires that crews were unable put eyes on due to terrain issues.
- We quickly found that conditions that prevented fire fighters from containing the fires, prevented us from flying. Mostly due to wind speeds, thermal updrafts and the inability of the aircraft to overcome the external forces it faced in these conditions.
- We wanted to support law enforcement, but we were unsure of what that would look like.
- We knew we could use the aircraft for damage assessments and surveys.

REGULATIONS

- We learned that we would have to register our aircraft with the FAA.
- Not long after we purchased our aircraft, we learned there was a license that could/would be held for flying.
- So, we began the process to become pilot's of the Part 107 FAA regulations.
- A combination of staff and volunteers began the process, we ended up with 3 pilots.
  - We have to re-test every other year.
  - We have to maintain flight logs for deployments
  - Maintenance records
  - Inspection records
  - Pre/post flight records

DOCUMENTATION

- We track our flights for record keeping.
- This coincides with the flight records on our aircraft.
- We capture the:
  - Who
  - What
  - Where
  - When
  - How long
  - Coordinates
  - Flight length
  - Number of flights
  - Contact with the FAA



City of Stillwater UAS Deployment Form

Form Filled By:
Activation Time:

Pilot: VFO:

Flight Information:

Location Information:
Address:
Intersection:
Latitude / Longitude: (if available)

Reason for Activation:

FAA Tower Contacted:
Yes No Time: 405-533-3758

Flight #1
Take Off:
Land:
Duration of Flight (in minutes):

Flight #2
Take Off:
Land:
Duration of Flight (in minutes):

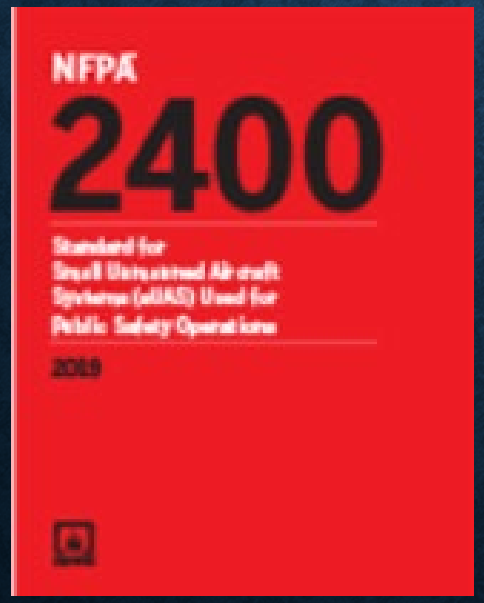
Flight #3
Take Off:
Land:
Duration of Flight (in minutes):

Landing Zone Information: (Circle One)
Grass Dirt Gravel Pavement Mobile Hand-Held

Landing Zone Size: (Circle One)
10' x 10' 20' x 20'

NFPA 2400

- Shortly after we began our program, we were contacted by IFSTA (International Fire Service Training Association) and asked to represent on the NFPA 2400 Committee.
- We still serve on this committee for: Standard for Small Unmanned Aircraft Systems



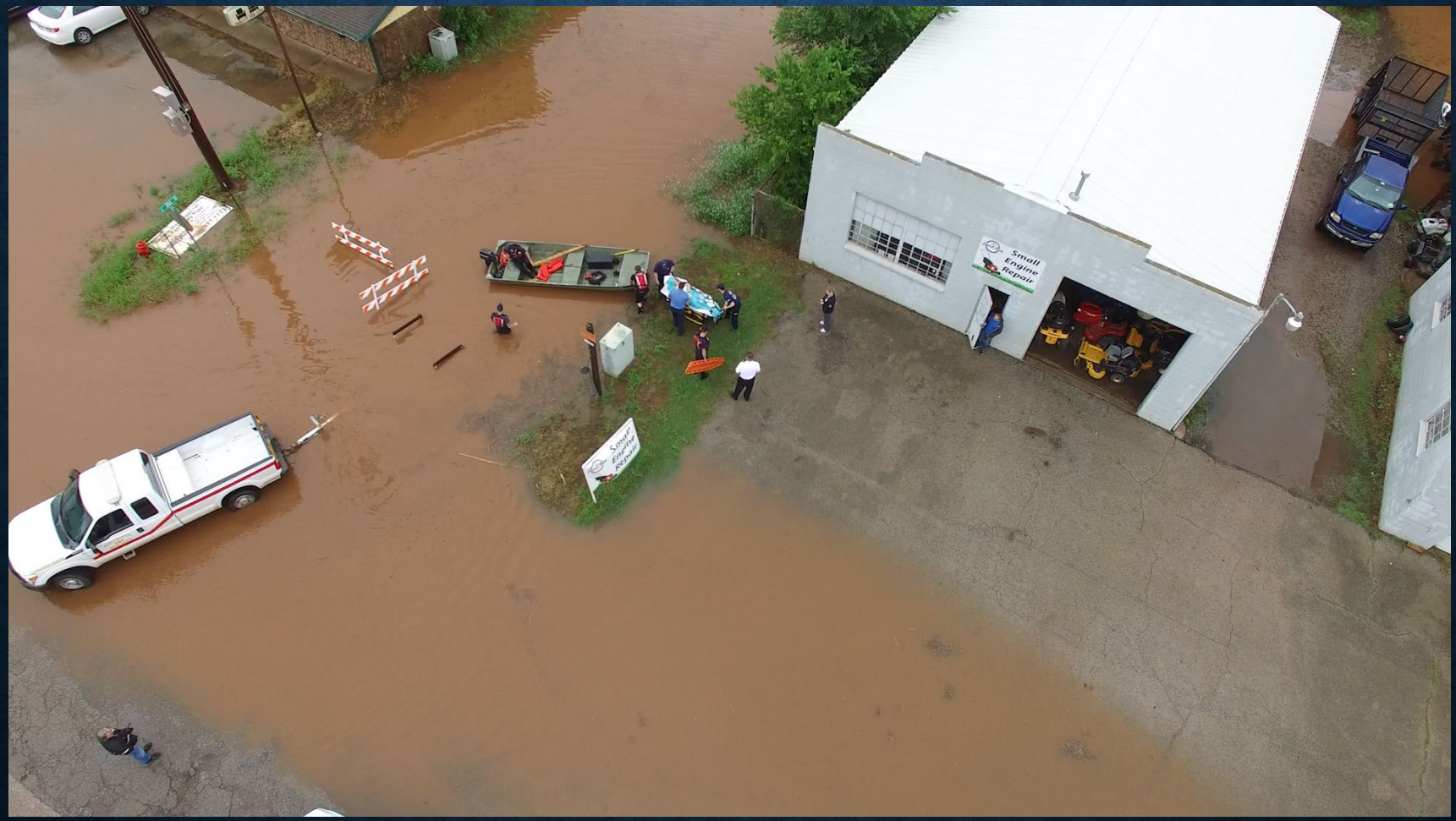
DEPLOYMENTS

- Development Services
- Code Enforcement
- Damage Assessments/Survey
  - Ice Storms
  - Floods
  - Tornadoes
- Fire
  - Structural
  - Industrial
  - Wildland Fire Surveys
- Law Enforcement
  - Accident Reconstruction
  - Search & Rescues
  - Over-watch for SWAT Team
  - Surveillance
  - Reconnaissance
  - Missing Persons (child/adult)
- Special Events
  - Large crowd monitoring

DEVELOPMENT SERVICES

CODE ENFORCEMENT

EMERGENCY RESCUES



FLOODS

FIRES

MISSING PERSONS

OVER-WATCH FOR SWAT

OVER-WATCH FOR SWAT

SPECIAL EVENTS

CITY OF STILLWATER
SEMA
EMERGENCY MANAGEMENT

SUGGESTIONS

- A sUAS program takes a lot of time if you are doing it right/correctly.
  - Registering your aircraft
  - Staying current on Part 107 regulations
  - Licensing
  - Testing
  - Training
- Have several people that can deploy, not rely on one person for the pilot.
- Be prepared to be called more and more, once leaders/departments find value in the outcome.
- Start small. Become proficient.
- If you can have a team that is assigned to air operations, that is best.
  - If you are flying, you aren't doing something else that needs to be done.
- TRAIN REGULARLY, BUILD IN TRAINING DAYS.
  - The more technology, the harder to operate, skills perish without constant interaction.


CITY OF STILLWATER
SEMA
EMERGENCY MANAGEMENT