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CERF-P

Florida Association for Search and Rescue
A Professional Interest Section of the Florida Fire Chiefs' Association

MISSION
Unify and coordinate the efforts of SAR Responders in the State of Florida.

Task Force Leaders Working Group
January 23, 2015

Introductions – Todd Livingston

SFM Training Report
Specialty Training – TFL class sponsored by TF 3 – first week of Feb. Course cost is free.
South FL exercise – 5 sites will be active at same time. 2 in SE FL, 1 in SW, FL, FSFC and Panhandle 26-27 March 2015. Get budget in ahead of time so that reimbursement can be approved prior to exercise.

USNG Proposal Report – supported by Executive Council. Usng.instruction@gmail.com

TF 5 Drone evaluation report – TF5 prepared mobilization document for drone use.

Work Group Report
Communications - TF 4 has chair position review the 2015 FEMA cache list to determine shortfalls.
Medical Protocols – input from TF's – need to get medical US&R protocols completed and to state medical director to get included in state disaster medical protocols
Logistics -2015 FEMA Cache List - need names from each TF for logs person to be part of this group. Need to determine critical needs/shortfalls
Water Rescue – type 1-7 for water craft. Document will be put up on FASAR site for review and comment.
ADSAR – drone operations to be added to develop a con-operational plan for use to prepare proposal for review.
Structure Specialist – 41 StS currently, regional training in Tampa for all StS in November. Still working on liability protection in state legislature.
Search -
Canine status report – approx. 34 K9's in state certified as Type 1. Type 2 SUSAR live find canine eval at FSFC Feb 14-15.

LTRT Report – Cedar Hammock had successful rescue. Continuing to maintain status.

ORE self-assessment status – 8, 5, site visits successful, 3 eval will be done by EMAP in April. Goal is to use EMAP for future assessments.

DHS Funding Update – 2013 spending – no reimbursements have been made, contracts expire in April. DEM contracts need scope of work populated. 2015 – Project 1, 2, 10, 11 funded. $2.2 million for US&R, HazMat and MARC. Sustainment funds need to be

reviewed. Capability need for task forces during hurricane response at federal level is under review.

EMAP National US&R standard update – new typing system Type 1 is full cbrne capabilities, Type 2, 3 and 4 similar to state Type 1, 2, 3. New accreditation process. 4 state US&R teams being targeted. FL 3, AL 1, NJ1 and TX 1.

FEMA national US&R report – US&R branch reorganized administration group to follow NIMS. All position specialty training being re-written by TEEX, on a schedule (16 hour on line, 24 hour on site). National level exercise in GA, TF 2 participated.

SUSAR Report – discussion on online capability for SUSAR (TEEX training) opening slots. EMAP project is primary goal.

CERF – P – team leader changes for all 3 National Guard teams

Task Force reports
TF 1 upcoming NRA
TF 2 upcoming NRA
TF 3 regional StS recert in November. FL too top honors. TFL course hosting, March will start training from rope to US&R medic. April EMAP assessments.
TF4 3 members at TFL course, planning phase for 24 hour MOBEX
TF5 expanding TF purview with additional county members from 4 counties.
TF6 completing recerts, more local use of teams, went to Collier for area search, issues with LE on searches.
TF7 new TF leader. Todd
TF 8 completed ORE, will be sending members to TFL course. 2-3 missing person search in state forest.

New Business – none

Next meeting July 2015 in at FFCA Annual Meeting & Executive Development Conference, Naples, Florida

Adjourn

Position statement: US National Grid map updates and systems configuration

The Florida Fire Chief's Association (FFCA) and its subsidiary, the Florida Association for Search and Rescue, recommend the addition of the United States National Grid (USNG) coordinate reference system to all map products as part of regular map maintenance and update cycles. This recommendation applies to all jurisdictions having authority within the scope and interests of the FFCA in direct support of State of Florida, County, Municipality, Federal and National Fire Protection Association (NFPA) standards and best management practices. The use of standards saves lives through interoperability and the provision of common knowledge among operating forces. This concept is as applicable to maps as it is to hose threads and radio systems.

We further recommend the incorporation of USNG as a required selection element for all contracts for goods and services which involve the use of location-based information. This includes, but is not limited to Computer Aided Dispatch (CAD) software, Mobile Display Terminal systems (MDT), geographic information systems, and incident management and reporting systems. When displaying

electronic maps, such devices and systems must correctly depict a user-indicated position at the correct, scale-appropriate USNG coordinate and must accept and correctly map USNG coordinate input. In accordance with NFPA 950, '*Standard for Data Development and Exchange for the Fire Service'*, systems must include USNG when transferring point-location information amongst systems.

A common operating grid has been a recommendation in after action reports since Hurricane Andrew. In 2010, USNG was added to both the Statewide Emergency Response Plan and the Comprehensive Emergency Management Plan.   In 2012, the latest edition of the Florida Field Operations Guide detailed the expected use of USNG in Florida. Since then, expanding technology has made USNG available to everyone with free or low cost smart phone applications available to citizens and responders.   In addition, USNG is fully compatible with US Military partners that operate in Florida.

For additional information, please review the following;

'*Implementation Guide to the USNG*',   National Alliance for Public Safety GIS (NAPSG), September 2013

USNGCenter

Florida's Division of State Fire Marshal website about USNG

Florida Field Operations Guide, Chapter 10

FIRE AND RESCUE DEPARTMENT

Special Operations

FIRE AND RESCUE DEPARTMENT

Date: January 23, 2015

To: Task Force Leaders Work Group Meeting
Florida Association for Search and Rescue (FASAR)

From: Todd A. Smith
Special Operations Training Coordinator
Jacksonville Fire and Rescue Department
Florida Task Force Five (FL-TF-5)
todds@coj.net / 904-703-7635

Re: Unmanned Aerial Systems (UAS / Drones)
FASAR "Opportunities" Presentation

Venue: Fire East 2015
Ocean Center, Daytona Beach, FL

FASAR "Opportunities" Presentation

The word "drone" is historically used in military and **surveillance** and **"other"** missions. Drones are fast-capable of fully autonomous operation, launched quickly immediate, critical information in any situation. Drones supported by gyrostabilized ISR, mapping, and aerial payload configurations. Drones are now being used and this has been highlighted in local and national news. service photographers or "hobbyist" have begun using

http://www.prioria.com/hex/

defense for deployable, to provide are filming privately Some fire drones to

capture aerial photos and videos of fire scenes. These incidents have been successfully impacted by the additional situational awareness provided by the aerial views. Departments that have seen the value in this technology have purchased, trained, and begun to deploy drones on emergencies within their districts. Drones have many uses on the emergency scene and within a nonemergency role for training and preplanning. Drone can be deployed to accurately size up technical rescue events; hazardous material incident; managing sporting events; or the ability to get an aerial view of incident operations on a large commercial building. Drone use will become widely accepted and practiced in the years ahead. Caution should be exercised so agencies do not become technology-focused and overlook personnel operating on the scene. As it is with all technology, when used properly, drones can enhance our response. For **Technical Rescue** Drones can be deployed to difficult-to-reach areas before responders to obtain a scene size-up so appropriate resources can be deployed. Drones can also be a valuable resource during pre-fire planning.

U.S. DEPARTMENT OF HOMELAND SECURITY

Target Capabilities - National Preparedness Guidelines

The Target Capabilities List describes the capabilities related to the four homeland security mission areas: Prevent, Protect, Respond, and Recover. It defines and provides the basis for assessing preparedness. It also establishes national guidance for preparing the Nation for major all-hazards events, such as those defined by the National Planning Scenarios. The current version of the TCL contains 37 core capabilities.

COMMON TARGET CAPABILITIES
Planning
Communications
Risk Management
Intelligence and Information Sharing and Dissemination

PREVENT MISSION AREA
Information Gathering and Recognition of Indicators and Warnings
Intelligence Analysis and Production
Counter-Terror Investigation and Law Enforcement
CBRNE Detection

RESPONSE MISSION AREA
On-Site Incident Management
Responder Safety and Health
Emergency Public Safety and Security Response
Fire Incident Response Support
WMD and Hazardous Materials Response and Decontamination
Search and Rescue (Land-Based)
Emergency Public Information and Warning

PUBLIC SAFETY APPLICATIONS

Emergency management
Drug interdiction
Urban Search and Rescue
Disaster damage assessment
Critical incident monitoring
Wildfire operations
Fire monitoring
Hazmat monitoring
Hostage standoff

CROSSWALK OF TARGET CAPABILITIES TO CORE CAPABILITIES

Core Capability	Core Capability Definition	Cross-walked Target Capabilities	Target Capability Description (Target Capability List version 2.0)	Justification
Response/ Health and Safety	guidance and resources to address all hazards including hazardous materials, acts of terrorism, and natural disasters in support of the responder operations and the affected communities.	Health	environmental health emergency on the public. The capability minimizes human exposures to environmental public health hazards (e.g., contaminated food, air, water, solid waste/debris, hazardous waste, vegetation, sediments, and vectors). The capability provides the expertise to run fate and transport models; design, implement, and interpret the results of environmental field surveys and laboratory sample analyses; develop protective guidance where none exists; and use available data and judgment to recommend appropriate actions for protecting the public and environment."	
		Responder Safety and Health	"ensures adequate trained and equipped personnel and resources are available at the time of an incident to protect the safety and health of on scene first responders, hospital/medical facility personnel (first receivers), and skilled support personnel through the creation and maintenance of an effective safety and health program."	Self-evident.
		WMD and Hazardous Materials Response and Decontamination	"to assess and manage the consequences of a hazardous materials release, either accidental or as part of a terrorist attack. It includes testing and identifying all likely hazardous substances onsite; ensuring that responders have protective clothing and equipment; conducting rescue operations to remove affected victims from the hazardous environment; conducting geographical survey searches of suspected sources or contamination spreads and establishing isolation perimeters; mitigating the effects of hazardous materials, decontaminating on-site victims, responders, and equipment; coordinating off-site decontamination with relevant agencies, and notifying environmental, health, and law enforcement agencies having jurisdiction for the incident to begin implementation of their standard evidence collection and investigation procedures."	The **Environmental Response/Health and Safety** capability targets include the deployment of hazardous materials teams as a resource in support of response personnel and the affected population; and the functions of assessing, monitoring, and performing cleanup actions, which correspond to activities in the **WMD and Hazardous Materials Response and Decontamination** target capability.

LEGAL ISSUES

Drone use brings some debate and possible legal concerns.

The Federal Aviation Administration (FAA) states the following:

"Safety is the FAA's top mission, and the agency maintains the world's safest aviation system. The FAA first authorized use of unmanned aircraft in the National Airspace System (NAS) in 1990."

Today, unmanned aircraft are flying in the NAS under very controlled conditions, performing border and port surveillance by the Department of Homeland Security, helping with scientific research and environmental monitoring by NASA and NOAA, supporting public safety by law enforcement agencies, helping state universities conduct research, and supporting various other missions for public (government) entities. Operations range from ground level to above 50,000 feet, depending on the specific type of aircraft. However, UAS operations are currently not authorized in Class B airspace (PDF), which exists over major urban areas and contains the highest density of manned aircraft in the National Airspace System.

There are three types of unmanned aircraft system operations: Civil, Public and Model Aircraft.

Civil UAS

Obtaining a Special Airworthiness Certificate in the experimental category for a particular UAS is currently the only way civil operators of unmanned aircraft are accessing the NAS. Experimental certificate regulations preclude carrying people or property for compensation or hire, but do allow operations for research and development, flight and sales demonstrations and crew training. The FAA is working with civilian operators to collect technical and operational data that will help refine the UAS airworthiness certification process. The agency is currently developing a future path for safe integration of civil UAS into the NAS as part of NextGen implementation. Read more about Civil Operations.

The FAA has been working for several months to implement the provisions of Section 333 of the FAA Modernization and Reform Act of 2012, "Special Rules for Certain Unmanned Aircraft Systems," which will allow for commercial operations in low-risk, controlled environments. Read more about Section 333.

Public UAS

COAs are available to public entities that want to fly a UAS in civil airspace. Common uses today include law enforcement, firefighting, border patrol, disaster relief, search and rescue, military training, and other government operational missions. Applicants make their request through an online process and the FAA evaluates the proposed operation to see if it can be conducted safely. Read more about Public Operations.

Federal Aviation Authority. (2015) Unmanned Aircraft Systems.
        Retrieved from https://www.faa.gov/uas/.

Section 333

Recognizing the demand to expedite integration of Unmanned Aircraft Systems (UAS) into the National Airspace System (NAS), the FAA continues efforts to develop the regulatory framework for safely integrating small UAS into routine NAS operations. This will primarily be accomplished by the small UAS (sUAS) rule, which is scheduled to be released for public comment later this year.

While these efforts continue, the FAA is also working to leverage the authority granted under Section 333 of the FAA Modernization and Reform Act of 2012 (FMRA) to establish an interim policy that bridges the gap between the current state and NAS operations as they will be once the small UAS rule is finalized. Section 333, "Special Rules for Certain Unmanned Aircraft Systems," provides flexibility for authorizing safe civil operations in the NAS by granting the Secretary of Transportation the authority to determine whether airworthiness certification is required for a UAS to operate in the NAS. Specifically, Section 333 authorizes the Secretary to determine:

1.   If certain unmanned aircraft systems, if any, as a result of their size, weight, speed, operational capability, proximity to airports and populated areas, and operation within visual line of sight do not create a hazard to users of the national airspace system or the public or pose a threat to national security; and

2.   Whether a certificate of waiver, certificate of authorization, or airworthiness certification under section 44704 of title 49, United States Code, is required for the operation of unmanned aircraft systems identified under paragraph (1).

This framework will provide operators who wish to pursue safe and legal entry into the NAS a competitive advantage in the UAS marketplace, thus discouraging illegal operations and improving safety. It is anticipated that this activity will result in significant economic benefits, and the FAA Administrator has identified this as a high priority project to address demand for civil operation of UAS for commercial purposes.

The FAA is currently considering exemptions under Section 333 from several different entities. You can view the exemption requests at www.regulations.gov.

DRONE SPECIFICATIONS

Range:

A drone's range varies by manufacturer; averaging 2,000 feet to miles, depending on a variety of conditions and whether the drone has been modified.

Video / Audio:

A drone can send back live video feeds viewable on the ground using a dedicated monitor, a Smartphone, or a tablet.

Night Operations:

Most drones have colored light-emitting diodes that indicate the direction of travel as viewed by the pilot. Unfortunately, obstacles cannot be seen easily making flying at night less practical. Drone cameras are dependent on available light, so night operations are generally not as useful as daylight operations. Drones can use a forward-looking infrared (FLIR) camera making night operations helpful.

Weather:

Flight in mild inclement weather is possible in certain circumstances. Heavy rain or snow prevents operation. Only skilled pilot can operate in high winds. Flying in very light rain is not recommended, but possible.

Cameras:

Some drones have proprietary cameras and some use GoPro cameras. Larger drones can use standard digital single-lens reflex (DSLR) cameras. Some drones are also equipped FLIR cameras (using imaging technology) senses infrared radiation.

Drones Limitations:

Flight duration limitations are based on the aircraft, the motors, the props, the battery, the payload, and atmospheric conditions. Close proximity to any large antennas or high-voltage power lines should be avoided.

Battery Life:

Battery life depends on the size of battery used. Most advertise flight duration of 25 minutes with battery "reserves" of 15-20 minutes.

VENDORS

(No endorsements implied or intended purposes of examples only)

Aeryon Scout Demonstrator Sale!

Package Includes:

1 X VEHICLE
2 X LEGS (SETS OF 4, 3 W/O ANTENNA, 1 W/ ANTENNA)
8 X MOTOR ARMS
1 X BASE STATION
6 X BATTERY
1 X CHARGER COMPLETE
1 X 5 MP CAMERA
1 X PROGRAMMING PAYLOAD
1 X CASE - MISSION
1 X CASE - SUPPORT
1 X COMMAND STATION (TABLET PC)
1 X COMMAND AND CONTROL SOFTWARE LICENSE
1 X OPERATING AND MAINTENANCE MANUAL

Prioria Robotics, INC

Prioria was founded in March 2003 by business and engineering graduates from the University of Florida. Drawing from expertise in embedded systems and robotics design, Prioria first developed and contributed to embedded systems solutions for companies in a variety of industry segments including medical devices, homeland security and trucking.

http://www.prioria.com/hex/

DJI technology

Headquartered in Shenzhen, widely considered China's Silicon Valley, DJI benefits from direct access to the suppliers, raw materials, and young, creative talent pool necessary for sustained success. Drawing on these resources, we have grown from a single small office in 2006 to a global workforce of over 2,000. Our offices can now be found in the United States, Germany, Japan, Beijing and Hong Kong. As a privately owned and operated company, DJI focuses on our own vision, supporting creative, commercial, and nonprofit applications of our technology.

http://www.dji.com/

3DR

3DR is committed to helping people see their world from above. We're North America's largest personal drone company, known for pioneering advanced and easy-to-use consumer drone technology, and for the Pixhawk, the world's most popular autopilot platform. All 3DR drone systems also serve as robust tools for data analysis, enabling mapping, surveying, 3D modeling and more. Our technology is currently used across multiple industries around the world, including agriculture, construction, infrastructure, search and rescue and ecological study. Founded in 2009 by Chris Anderson, former editor-in-chief of Wired Magazine and founder of DIYDrones.com, and Jordi Muñoz, an engineering prodigy from Ensenada, Mexico, 3DR is a VC-backed startup with over 200 employees in North America and more than 30,000 customers worldwide. Headquartered in Berkeley, CA, we operate engineering facilities in San Diego, sales and marketing in Austin, Texas, and manufacturing in Tijuana, Mexico.

http://3drobotics.com/about-us/

FL-TF-5 2014 Mobilization Exercise (MOBEX) Visuals

FL-TF-5 2014 Mobilization Exercise (MOBEX) Visuals

FL-TF-5 2014 Mobilization Exercise (MOBEX) Visuals

FL-TF-5 2014 Mobilization Exercise (MOBEX) Visuals

RECOMMENDATIONS:

- Establish a "FASAR UAS / Drone" subcommittee

- Identify the subcommittee "Chair"

- Request participation from state team members

- Create a timetable / benchmark for subcommittee deliverables.

- Subcommittee deliverables suggestions;

  - Investigate national best practices for UAS / Drones
  - Justification for application to the USAR environment
  - Appropriate placement in the USAR system (Tech-Info Specialist, etc)
  - Legal findings / FAA / Applications for use
  - Funding opportunities / challenges
  - Recommendations for specific products
  - Sustainment planning
  - Training requirements (product specific and non-product specific)

- Determine FASAR implementation opportunities / challenges

CONCLUSION:

Our Technical Rescue response can be greatly enhanced by UAS / Drones use. In the difficult-to-reach areas responders could obtain a scene size-up so appropriate resources can be deployed. Drones can also be a valuable resource during wide area searches and assignment planning. Bringing UAS / Drone use into FLUSAR is a valuable opportunity and should be pursued by FASAR in the interest of responder safety.