



## **DRONE**

Remotely Piloted Air System (RPAS) operations for fire, rescue, hazmat and disaster management

#### **SUITABLE FOR:**

Simulation training, inspections, firefighting operations, damage assessments, search and rescue, gas and vapour cloud emergencies, infrastructure integrity, 3D surveys, asset management, volumetric calculations and incident command, and control operations.



















#### A SINGLE SOURCE SOLUTION

Advanced Fire Suppression Technologies (Advanced FST) offers a single source solution for all RPAS operations for fire, rescue, hazmat and disaster management environments.

Together with their partners, all required licences, third-party insurance, RPLs and CAA documentation are in place to fly legally. An array of software complements the payloads of the various drones, covering the full gambit of requirements for the rendered services.

#### **CONTACT US**

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# ADVANCED FST's RPAS SERVICES

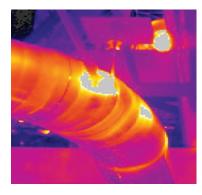
Advanced FST offers the following RPAS services:

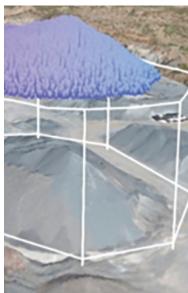
- » High-definition video with super zoom live footage during firefighting operations, allowing rapid 360° surveys of the scene and monitoring of fire spread, the progress of extinguishing efforts, resource placement, and personnel accountability
- » Thermal imaging during firefighting operations identifies fire compartments and/or hotspots, direction of spread, firefighting stream efficiency, on-scene location of firefighting resources, search and rescue casualty location and ground rescue guidance
- » Thermal imaging during hazmat operations identifies sources of gas and vapour during hazmat, tank farm and process emergencies. Assists in identifying the direction of migration and exposures in the way of the gas/vapour cloud
- » Gas detection identifies explosive limits, volatile organic compounds (hydrocarbons), oxygen levels, and up to 25 different toxic gasses from one device
- » Gamma detection identifies radiation from damaged nuclear sources, isotope loss of containment due to fire or explosions, extent of spread of nuclear sources either volatilised or in fine particles, and radiation levels emanating from large-scale destruction to nuclear facilities
- » Laser mapping (LIDAR) performs real-time 3D mapping of terrain, structures, processes, pipelines, etc. During an emergency it can be used to get a 3D view of conditions. Post emergency it can perform damage assessment. LIDAR mapping can be overlaid onto other mapping sources like GIS, aerial photos and the like. It is also a preplanning tool
- » Inspection and 3D mapping of enclosed spaces like tunnels, caverns, caves, mine shafts, silos and voids. Visually search confined spaces and unsafe structures and trenches during technical rescue operations
- » Assess damage from the air without costly helicopters or fixed-wing planes
- » Visual assistance for search and rescue operations through thermal imaging, infrared, high-definition video live streaming and super zoom capabilities
- » Infrastructure integrity assessments using HD and thermal imaging are faster, safer and less costly
- » Accurate 3D surveys
- » Asset management
- » Volumetric calculations for movement and asset control
- » Incident command and control operations
- » Incident related pre-planning
- » GAP analysis
- » On-site support during incidents
- » Best practice workshops

### ADVANCED TECHNOLOGY AT WORK

The Advanced FST RPAS programme is the single biggest leap in the fire, rescue, hazmat and disaster management technology space in the past 10 years. The applications, together with the prerequisite software, are endless in the saving of lives and property, controlling of assets, creating 3D models, etc.

The RPAS programme is used to capture a 3D model of the facility, which is incorporated into the Advanced FST training simulator. This enables the provision of full simulation training – including virtual reality/augmented reality/XR – on the client-specific facility, ensuring the highest level of realistic training. Students engage in scenarios that could exist on the facility using the exact equipment and vehicles that are on site.









For more information go to www.advancedfst.co.za