

# sUAS Overview

## Small Unmanned Aircraft Systems (sUAS)

ManTech offers a full service sUAS capability, from planning to delivery, of all sUAS and data needs. Since 2016 when CFR 14 Part 107 provided the regulations to operate Group 1 and 2 UAS (under 55 lbs) for commercial purposes, our team has supported 300+ operations in 218622186 WR support US Government contracts. Our team of professionals has extensive experience in mapping, survey, and civil/military aviation operations.

### Capabilities

- .KRXHHSKRWRJUDPPDWLFRGHOLJD@SURFH
- LRODWHGHEFXUHHURPHW
- HRSDWLDODDODDGFUWRJUDSK
- +LUHROXWLRBUWKRLPDJHU
- PRGHOFUHDWLR
- 6XUHJUDGH36IRUJURXGFRWURODGIHDWXUHFDSDWXUH
- JLWDO(OHDWLRDRGHO
- .5GHRFDSWXUH
- 0XOWL\$HFWUDOLPDJHU
- +\$HUS\$HFWUDOLPDJHU
- /LGDWD

### DoD Support (Past & Current)

- 30 USMC Known Distance (KD) Ranges
- MCB Camp Pendleton Aviation Facilities Inventory
- Camp San Luis Obispo Range B Survey
- MCAS Cherry Point control tower elevation video
- MCI-W Off-Installation training video capture
- San Nicholas Island sea bird species survey
- Seal Beach NWR survey
- FRTC UXO Survey

### Key Solutions

#### Access to Remote Locations

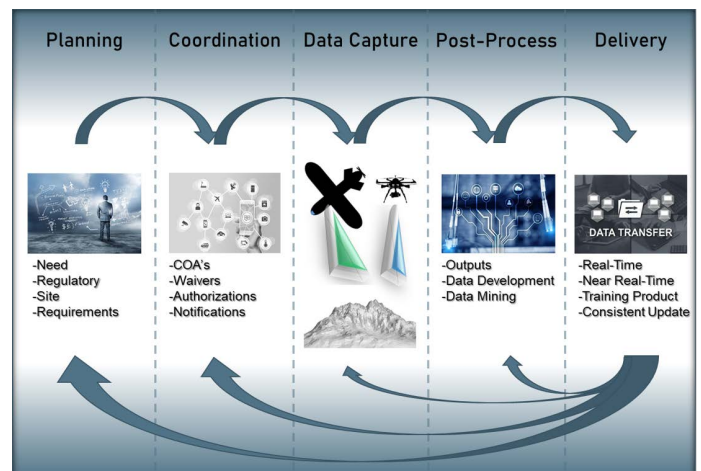
This capability has proven to provide access to locations that were previously impossible, unsafe and/or required significant time and resources to reach.

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Up to 3 different sensor captures concurrently and flight times up to 5 hours to maximize data capture opportunities.

#### Post-Processing and Data Analysis

Our team of geospatial professionals are experienced in photogrammetric modeling, spatial analysis, data management/development and cartography



ManTech International sUAS Assets													
UAV	# Operational	Size (LxWxH)	Max Speed (mph)	Max Flight Time (mins)	Power Source	Max Range (nm)	Avg Area (acres/flight)	Capture Type	Use Cases	Positional Accuracy (w/o ground control)	Positional Accuracy (w/ ground control)	Useable Sensors	
*Quad-Copter (QC) - NON-COTS UAS	2	1.5'x1.5'x8"	55	32	Electric	3	42	4k Video; 21 MP RGB; thermal	Thermal inspection; HD video; photogrammetric modeling; 3D renderings	<5m	<2cm	Proprietary Integrated Sensors	
Fixed-Wing (FW) - COTS UAS	2	4'x6'x1'	60	120	Electric	20+	1200	FPV; 24MP RGB; Multi-spectral	FPV video; photogrammetric modeling; 3D renderings, vegetation identification; surface object detection	2-4cm	<2cm	Sony a6000; RedEdge-M	
Multi-Rotor (MR) - COTS UAS	2	6'x6'x2.5'	60	48	Electric	5	250	4k Video; 61MP RGB; Multi-spectral; Thermal; LIDAR	thermal imaging/video; photogrammetric modeling; 3D renderings, vegetation identification; surface object detection	<5m	<2cm	Sony A7R IV; FLIR Duo Pro R; Altum; Zeb Horizon	
Multi-Rotor (MR) - COTS UAS	2	7'x7'x3'	60	500	Gas/Electric	5	600	4k Video; 61MP RGB; Multi-spectral; Thermal; Hyperspectral; LIDAR	thermal imaging/video; photogrammetric modeling; 3D renderings, vegetation identification; surface object detection and classification; surface inspection	2-4cm	<2cm	Sony A7R IV; FLIR Duo Pro R; Altum; Zeb Horizon; Coaligned VNIR/SWIR	

Proper management of your data is paramount so all data services are provided in-house in an isolated computing environment. This ensures your data stays secure and within reach through the full project lifecycle.

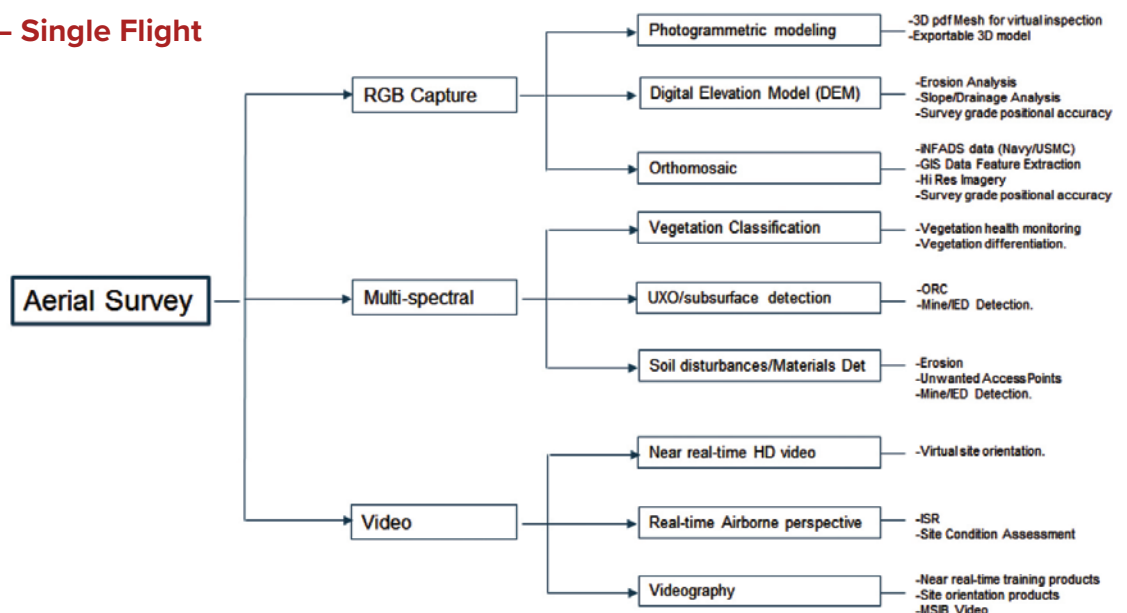
### 2nd and 3rd Order Benefits to Client(s)

Data captured during specified tasks can be used internally and externally for 2nd and 3rd order benefits.

An example of a routine aerial survey of a training area/site could provide:

- Data for iNFADS (Navy/Marine Corps)
- Imagery/video representing near real-time conditions for operators to use during briefing/operational planning and/or training
- Erosion and drainage conditions for facilities management
- Slope/grade data
- Soil volumetric calculations
- GIS data feature extraction-planimetric and basemap
- 3D models for site orientation
- Soil disturbances for sensitive sites/areas
- UXO Distribution

### Data Development – Single Flight



#### LEARN MORE

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