How to Start Mapping with Drones

UAS Mapping Palm Springs
September 13, 2016
Aerotas enables mappers to use drones

Aerotas helps surveyors use drones. We focus on providing value with drones today, not in some vague future.

This forces us to tackle real challenges head on.
Know the Limits

Technology
• Can only map what you can photograph
• Accuracy Limits (~0.1’)

Regulations
• Max Altitude 400’
• Visual Line of Sight (VLOS)
• No flights over people

Financials
• 1 or 2 people per operation
• $100,000+ hardware, bad ROI
• Time is Money
Set Realistic Goals

Photos - Basic Mapping - High-Accuracy Mapping - 3D Modeling
Understand the Ground Rules

Safe
• People
• Property
• Other airplanes
• Your company

Legal
• Pilot certification
• Aircraft registration
• Airspace restrictions

Cost Effective
• Cost of the program
• Cost of people
• Benefit
5-Factors to a Successful UAV Program

- Hardware
- Software
- Operations
- Training
- Insurance
Hardware

Fixed Wing vs. Multirotor

Consumer vs. Professional
Software

Autopilot

Data Processing
Operations

Operations Plan

Checklists

Data Workflow

Mission Planning

Safety & Weather Checks

Aircraft Inspection

Flight Operations

Data Processing
Training

Operations Training

Legal Training
Insurance

Are your operations safe?

Are your operations reliable?

Is your aircraft maintained?
Start Simple

Aerotlas Map Package

• Hardware for mapping
• Full operations manual
• Online training for FAA pilot certificate
• 1-day in-person flight training
• Liability & hull insurance
• Ongoing support
• Cloud-based processing (optional)
What can drones do in the future?

- Larger areas
- Flights over people
- Higher accuracy
- Better data processing