



# TD 100 Class II UAV – DMS Professional UAV Mapping Solution



## BFS-DMS: Professional Mapping Solution (Class II UAV)

Brican & Applanix is partnering with Peregrine Aerial Surveys to launch the latest low-power Direct Georeferencing technology in a Class II RPAS. Applanix has brought together all of its experience in positioning, orientation, multi-sensor integration and Direct Georeferencing, along with the very best in small-form-factor hardware and powerful software, to produce a Direct Georeferencing solution for professional aerial mapping. The Peregrine Aerial Survey team has years of experience under their belt with well-trained sensor operators, photogrammetrists, and pilots who are well poised to provide unmanned aerial systems surveys using the BFS-DMS platform.

### DMS CAPABILITIES

- Ultra-fast image delivery of map-ready orthophotos within hours of flying a mission
- Direct georeferencing capability, eliminating the need to survey ground control points
- Consistent, reliable, highly accurate mapping-grade results
- Powerful post-processing software, generating unsurpassed image quality
- Multiple configuration options, enabling quick swap-outs of cameras, sensors and lenses for flexible task specific re-deployments
- Small, lightweight and low-power GNSS-inertial components to reduce in-flight power consumption
- Reconfigurable mounts and fixturing to accommodate many imaging payloads
- Integration with flight management system to enable dynamic sensor control
- Modular design of payload mounting to allow for flexible upgrades

### Applications

#### GIS

- Orthophotos and base maps
- Urban and regional planning
- Earthworks and coastal zone monitoring
- Environmental assessments in inaccessible/inhospitable locations

#### Rapid response mapping

- Time-sensitive photogrammetry of turbulent terrain in emergencies and natural disasters
- Change detection and rapid situation assessment

#### Tactical/reconnaissance mapping

- Mission planning and operations preparation
- Damage assessment in inhospitable terrain

#### Corridor mapping

- Power line and utility pipeline surveys
- Transportation corridors
- Route planning and assessment

#### Agriculture

- Crop growth surveys & disease monitoring
- Environmental impact monitoring

## Brican Flight Systems Inc.

The TD100 series RPAS, equipped with the Applanix DMS system, is a Class II RPAS (UAV) compliant with a MTO weight under 55 lb. The entire DMS sensor package is built on Brican’s high performance UAV platform and delivers affordable and accurate data in even the most remote and harsh environments, which is its focal value proposition.

Launch and recovery are managed by a custom pneumatic launcher and inflatable landing strip, both lightweight and portable, and therefore providing unrestricted operations on land, sea (helipad) or snow.

## Peregrine Aerial Surveys Inc.

Peregrine Aerial Surveys uses the best technology available to provide competitively priced, quickly delivered, accurate mapping products specifically designed to meet particular needs, enabling clients to act quickly and decisively to achieve their goals. The team are experienced in providing the following aerial services:

- Multispectral imaging
- Aerial Image Data Acquisition
- Aerial Triangulation and Mapping
- Data Analysis and Interpretation
- Ground Control and Targeting
- CIR (True Color Infrared) Images
- Photomosaics
- Orthophotography
- Color Maps
- Volumetric Calculations
- Digital Surface and Elevation Models
- Digital Terrain Models

## TD100 SPECIFICATIONS

### Weight:

Electric 15.87 Kg/ 35lb  
Multi Fuel 15.87 Kg/ 35lb

**Max take-off:** 25 kg/ 55 lb

**Useful Payload:** 9.1 kg / 20 Lbs

**Wingspan:** 5.0 m/ 16

**Length:** 2.0 m/ 6’ 6"

**Air frame:** Composite Carbon Fibre

**Autopilot Options:** Cloud Cap Piccolo  
Micropilot Heli Autopilot

**Ground Control:** MaxVision Portable Computers



### SPECIFICATIONS AND PERFORMANCE CRITERIA:

	Electric	Multi Fuel
• <b>Payload Cruise Speed</b>	83 kph (45 knots)	83 kph (45 knots)
• <b>Max Speed</b>	185 kph (100 knots)	185 kph (100 knots)
• <b>Ceiling</b>	7600 m	7600 m
• <b>Endurance</b>	Up to 2.5 hrs	Up to 23 hrs
• <b>Range</b>	Up to 200 km (108 nm)	Up to 1945 km (1050 nm)
• <b>Operating Temperature</b>	-20 <sup>0</sup> C to 45 <sup>0</sup> C (-4 <sup>0</sup> F to 113 <sup>0</sup> F)	

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**Designed and built to be RPAS compliant that meets Canadian Best Practice Standards**

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