GET THE CROP STATUS RIGHT OVER LARGE AREAS

1150 COVER UP TO 1150 HA PER FLIGHT
5 NARROW SPECTRAL BANDS (RED, GREEN, BLUE, RED EDGE, NIR)
5 GSD DOWN TO 5 CM
2 KG WEIGHT VLOS & BVLOS CERTIFIED

DATASHEET
DT18 AG
LONG-RANGE MINI UAV SURVEY, MONITOR & INSPECT

Expert line

INDUSTRIES
Agriculture & Forestry

KEY APPLICATIONS
- Field Research & Microplots Management
- Plant Counting & Gap Detection
- Large Scale Farms, Plantations & Herd Scouting
- Remote Surveillance of Crop Practices
- Precision Agriculture
- Forest Characterization
**KEY DIFFERENTIATORS**

**Best in class for crop data quality:** the fully integrated, state-of-the-art Agricultural sensor acquires data in 5 narrow bands (Red, Green, Blue, Red Edge, Near Infrared). Combined with the flight characteristics of DT18, it provides incomparable data quality.

**Quick return on investment (ROI):** durable and reliable solution for intensive use, increase in productivity thanks to better yields during data collection (multiple field mapping).

**Safe technology:** first UAV certified in the world for daily BVLOS operations (since 2012). Design complying with aeronautical certification methods. Advanced safety features (real-time front video, autopilot fail-safe mechanisms, geofencing).

**Field readiness:** hand-launched, automatic take-off, field proven, with real-time status of the quality of the acquisition; more than 300 000 km of flight experience and 5 min of deployment time.

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**UAV SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endurance</td>
<td>Up to 120 min</td>
</tr>
<tr>
<td>Weight (payload included)</td>
<td>2 kg</td>
</tr>
<tr>
<td>Wingspan / Length</td>
<td>1.8 m / 1.2 m</td>
</tr>
<tr>
<td>Material</td>
<td>Composite (fiberglass, carbon, kevlar)</td>
</tr>
<tr>
<td>Deployment time</td>
<td>5 min</td>
</tr>
<tr>
<td>Take-off / Landing</td>
<td>Hand launched or catapult / Belly (no damage to crops)</td>
</tr>
<tr>
<td>Cruise speed</td>
<td>61 km/h (33 kts)</td>
</tr>
</tbody>
</table>

Maximum surface area covered (75% overlap)

- 90 ha (222 ac) mapped with 4.8 cm GSD @ 70 m AGL
- 210 ha (520 ac) mapped with 10.2 cm GSD @ 150 m AGL
- 1150 ha (2840 ac) mapped with 47 cm GSD @ 700 m AGL

Communication range                      Up to 20 km / secured link

Operating conditions

- Wind resistance                     50 km/h, moderate rain
- Take-off & landing altitude / ceiling 0 to 2000 m ASL / 2500 m ASL
- Landing space                        Typically: 5 m x 10 m / Recommended: 10 m x 20 m

**SENSOR**

**MicaSense RedEdge Multispectral Camera**

- Narrow & calibrated spectral bands: Red, Green, Blue, Red Edge, Near Infrared
- Resolution (GSD): 4.8 cm @ 70 m AGL, 10.2 cm @ 150 m AGL
- Width x Height: 960 x 1 280 pixels
- Image acquisition: Configurable (standard: 1 ima/sec.)
- Sensor type: Global shutter, distortion free
- Calibration panel included

**Dalairtech SAS | 676, Rue Max Planck - Toulouse-Labège 31670 - France | Tel: +33 5 82 95 44 06 | www.delair-tech.com**

**DELIVERABLES**

- **Analytics compatible with**
  - Dalair-Stack® and photogrammetry software.

- **Analytics available on Dalair-Stack® with on-demand format**
  - Ortho Image & DSM (Digital Surface Model), DTM (Digital Terrain Model), Precise Scouting Maps: NDVI, NDRE, MCARI, SAVI, & other
  - Ag index map, Plant Counting, Gap Detection, Plant Height, Field Vectorization, Vegetation Height, Plant Density, and many more.

- **Analytics compatible with**
  - Dalair-Stack®
  - ESRI ArcGIS, QGIS, ENVI, eCognition.