

DA62 MPP **SURVEYSTAR**

High Geo Accuracy meets Operational Economy



CABIN
Large format camera



20-INCH HATCH
Stabilization mount



UNIVERSAL NOSE
Airborne laser scanner



FLIGHT GUIDANCE
Flight management system

multi sensor capability • 100-hour maintenance interval • significantly reduced drag concept
low operating costs • piston powered & jet-fueled • missions up to 8 hours • „FAILSAFE“ carbon fiber airframe
single lever engine control (EECU) • Garmin ESP (Electronic Stability & Protection)



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Configuration for Geo Survey and Mapping

- Garmin GCU 476 Keypad
- Garmin Flight Stream 510
- Garmin GTX345R ADS-B in / out XPDR
- GWX70 Weather Radar
- WX 500 Stormscope
- Avidyne TAS 605 Traffic Advisory System
- Honeywell KN 63 Remote DME
- Garmin GSR 56 Satellite Communication System
- Air conditioning / RACC system
- TKS anti-icing system
- Digital standby attitude module (MD-302 SAM)

FLIGHT MANAGEMENT & GEO-ENCODING SOLUTION IGI

- Pilot & operator screen with different views of surveying area
- Personalized Display Information
- Support for digital camera systems, LiDAR systems, SAR etc.
- Direct Georeferencing for all sensors, IMU export free

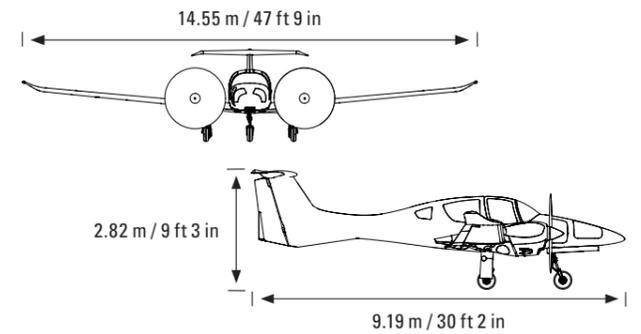


LARGE ELEVATOR TIPS

To increase yaw stability for precision flights



DA62 MPP SURVEYSTAR FACTS



Minimum Operation Speed	76 KIAS	140 km/h
Maximum Cruise Speed (14,000 ft, MCP)	192 KTAS	356 km/h
Fuel tank capacity	86 USGal	326 l
Certified Service Ceiling	20,000 ft	6,096 m
Take-Off Distance (50 ft obstacle / ISA MSL)	2,897 ft	833 m
Landing Distance (50 ft obstacle / ISA MSL)	2,556ft	779 m

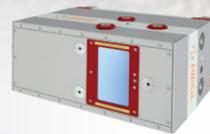
Mass & Balance

Maximum Take-Off Mass (restricted overweight operation)	5,071 lbs	2,300 kg
Empty Mass	3,803 lbs	1,725 kg
Payload for Crew and Fuel	1,268 lbs	575 kg



AIRBORNE LASER SCANNER SYSTEM RIEGL VQ-780 II

- High operating altitude up to 18,500 ft (5,600 m)
- High laser pulse repetition rate up to 2 MHz
- Multiple Turn Around (MTA) up to 35 pulses simultaneously
- Wide scan field of view up to 60°
- Full waveform analysis
- High ranging accuracy 20 mm



LARGE FORMAT CAMERA VEXCEL ULTRACAM OSPREY 4.1

- Collects photogrammetry-grade nadir and oblique images simultaneously
- 1.1 Gigapixels every 0.7 seconds
- Fly at sun angles of up to 35-40°
- Multi-directional motion compensation
- 20,544 pixels across track
- Color image size: 12.840 x 8.760 pixels



AUSTRO ENGINE AE330

- In-house designed turbo diesel engines
- 180 hp per engine
- Fuel grades: Jet-A1, Jet-A, TS-1, JP-8, RT, No. 3 Jet
- Ultra low fuel consumption
- 100-hour maintenance interval
- Operating costs: 24 EUR/h
- Safe design MTBF: >110,000 h
- TBO: 1,800 h

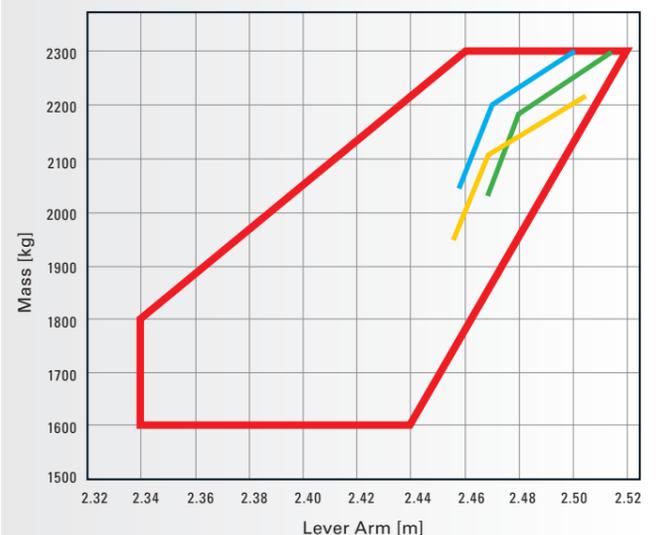


GARMIN G1000 NXi

- Fully integrated glass cockpit / flight management system
- Synthetic Vision Technology
- GFC 700 Autopilot, incl. YD, IAS, LNAV / VNAV, FD



MASS & BALANCE



Payload examples (RACC not installed):

- | | | |
|------------------|---|--|
| Config #1 | <ul style="list-style-type: none"> • Riegl VQ-780 II • IGI DigiCAM-100 • IGI CCNS-5 FMS | <ul style="list-style-type: none"> • Crew 2x85 kg • Fuel 86 USgal • Hatch installation |
| Config #2 | <ul style="list-style-type: none"> • Vexcel UC Eagle • Somag GSM 4000 • IGI CCNS-5 FMS | <ul style="list-style-type: none"> • Crew 2x85 kg • Fuel 86 USgal • Hatch installation |
| Config #3 | <ul style="list-style-type: none"> • Riegl VQ-780 II • Vexcel UC Osprey • Somag GSM 4000 • IGI CCNS-5 FMS | <ul style="list-style-type: none"> • Crew 2x85 kg • Fuel 82 USgal • Hatch & Nose installation |



GYRO STABILIZATION MOUNT SOMAG GSM 4000

- Drastic movement reduction of the airborne sensor
- Hydraulic gimbal system
- Pitch / Roll stabilization angle up to 8.8°
- Yaw stabilization angle up to 25°



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Configuration for Geo Survey and Mapping

SENSOR & MOUNT COMBINATIONS

Manufacturer	Sensor	Mount
Vexcel	Eagle	Somag GSM 4000
Vexcel	Falcon	Somag GSM 4000
Vexcel	Condor	Somag GSM 4000
Vexcel	Osprey	Somag GSM 4000
Vexcel	UCO 4.1	Somag GSM 4000
Leica	DMC III	Leica PAV 100
Leica	ADS100	Leica PAV 100
Leica	ADS120	Leica PAV 100
Leica	RCD30	Leica PAV 80
Leica	City Mapper II	Leica PAV 100HP
Specim	Aisa FENIX	Somag GSM 4000
Riegl	VQ-1560 I	Somag GSM 4000
Riegl	VQ-780 II	shock - mounted

These combinations are just examples. Other combinations available on request.
Some combinations require angular restrictions in the stabilization range.

MISSION PROFILE EXAMPLES

Conditions: • distance home base - area of interest: 50 NM / 93 km • transition flight in operating altitude MSL • no turns between flight lines included
• 30 minutes final reserve • full fuel 86 USgal • 2-man crew

Examples	High Resolution	Standard Resolution	Large Areas
Applications	City & architecture modeling, power lines & corridor mapping, precision monitoring programs	Cadastral, agricultural & forestry mapping. Small & medium area content programs	Wide-area mapping and content programs. Remote area data spatial data collection
Operation Speed (KTAS \cong GS)	117 KTAS / 60 m/s	146 KTAS / 75 m/s	162 KTAS / 83 m/s
Altitude MSL	2,000 ft / 610 m	8,000 ft / 2,438 m	10,000 ft / 3,048 m
Representative GSD	2.5 to 4.5 cm	4.5 to 7.5 cm	7.5 to 12.5 cm
Representative Point density	20 pts/m ² and higher	10 to 20 pts/m ²	1 to 10 pts/m ²
Fuel Flow (USGal/h)	9.0 @ 45% power	11.8 @ 60% power	14.8 @ 75% power
Total Flight Time	8.8 h	7.0 h	5.7 h
Survey Time Available	8.1 h	6.2 h	5.0 h
Possible Line Length per Flight	1,760 km / 950 NM	1,681 km / 908 NM	1,488 km / 803 NM

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