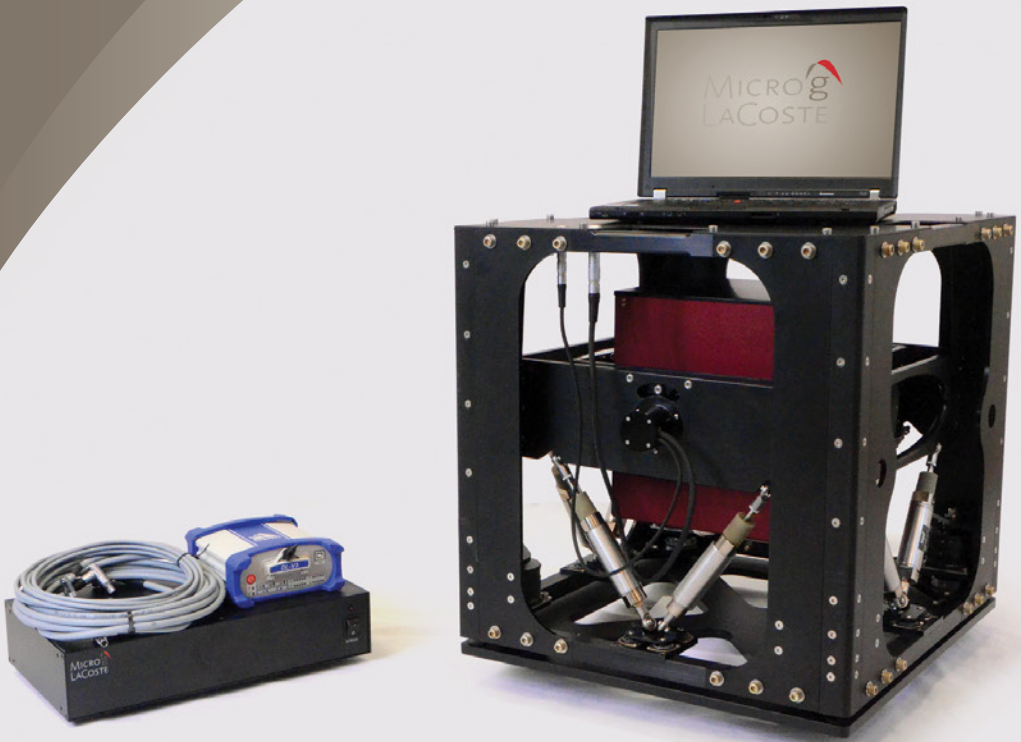


TAGS-7 TURN-KEY AIRBORNE GRAVITY SYSTEM



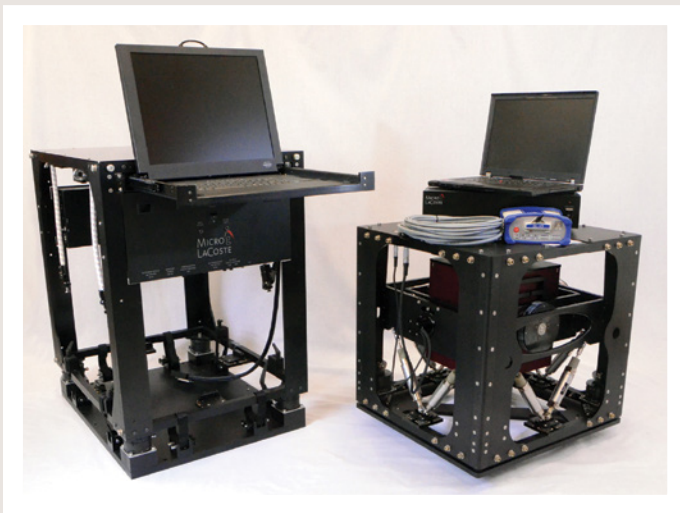
Smaller sensor, full feedback system, and a host of other features takes the world's best dynamic gravity sensing system to the next level.

APPLICATIONS INCLUDE

- Geoid Mapping
- Regional Geophysics
- Petroleum Exploration
- Mineral Exploration

COMPARISON WITH ORIGINAL TAGS SYSTEM

- 100 times the dynamic acceleration range.
- Larger pitch (35° vs. 22°) and larger roll (35° vs. 25°) ranges.
- Static repeatability improved (0.02 milliGal vs. 0.05 milliGal).
- Reduced power requirements (75 vs. 240 W).
- Greatly reduced size: 48% smaller (59 x 53 x 56 cm vs. 71 x 56 x 84 cm).
- Greatly reduced weight (73 kg vs. 140 kg).



Shown above are the original TAGS on the left (without safety cages installed), and TAGS-7 on the right (no safety cages necessary).

TAGS-7 REPRESENTS THE LATEST DEVELOPMENT

in a long line of L&R-based airborne gravity systems, stretching back to the first successful airborne gravity flights in 1958 and building on the success of the TAGS System. For over 50 years, L&R gravimeters have acquired hundreds of thousands of line kilometers of gravity data during academic, government, and commercial surveys. TAGS-7 blends the latest in GPS and data acquisition technology with the solid foundation of the L&R dynamic gravimeter.

TAGS-7 is an upgrade to the TAGS/Air III gravity meter, and is designed specifically for airborne operations. The system incorporates a time-tested, low-drift, zero-length-spring gravity sensor mounted on a gyro-stabilized gimbal platform. The sensor has a worldwide gravity measuring range (no reset necessary) of 20,000 milliGal.

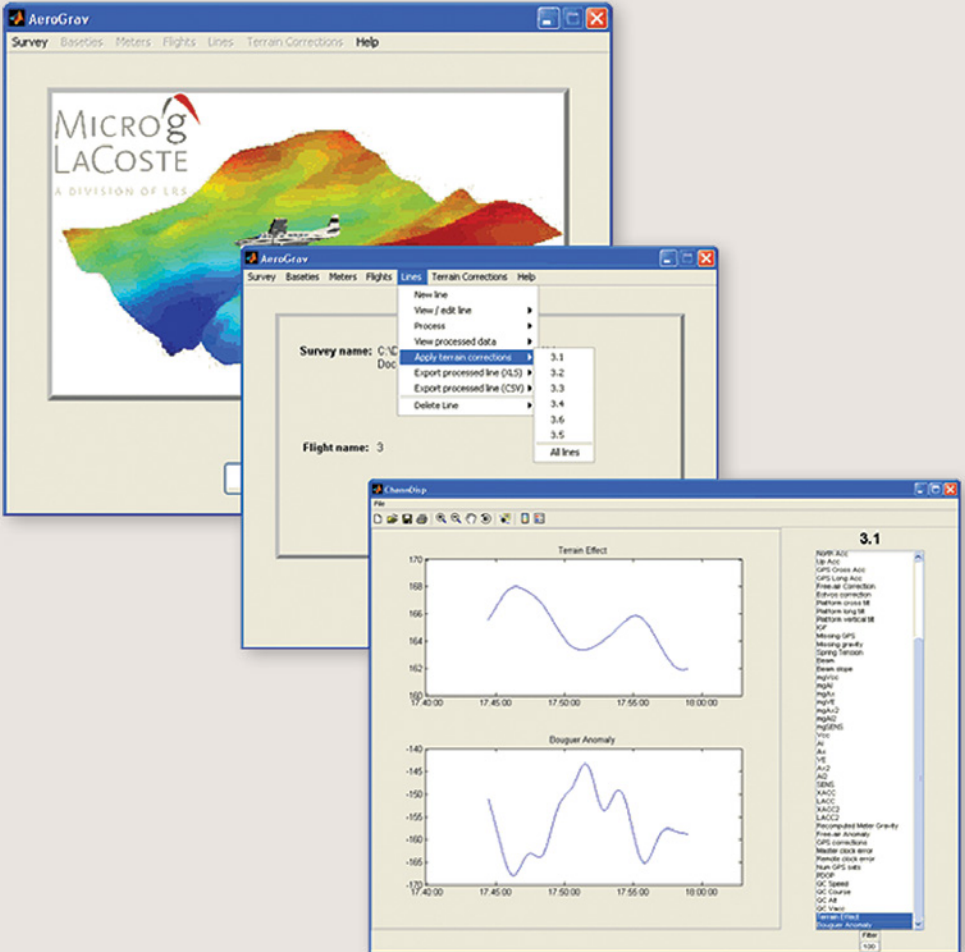
NEW FEATURES

- Smaller sensor/gimbal (60%).
- Lighter sensor/gimbal (30%).
- New slip ring technology on the gimbal makes for a more robust and reliable stable platform.
- 20 Hz GPS and gravity data: Better GPS and gravity timing.
- Larger range of aircraft pitch and roll.
- Full feedback 500,000 milliGal range on beam: more robust in turbulence.
- Double oven temperature control.
- Temperature controlled electronics.
- Microprocessor control.
- Separate, rack-mountable electronic unit and computer allow for more flexibility in configuration.
- Lockable gimbal.

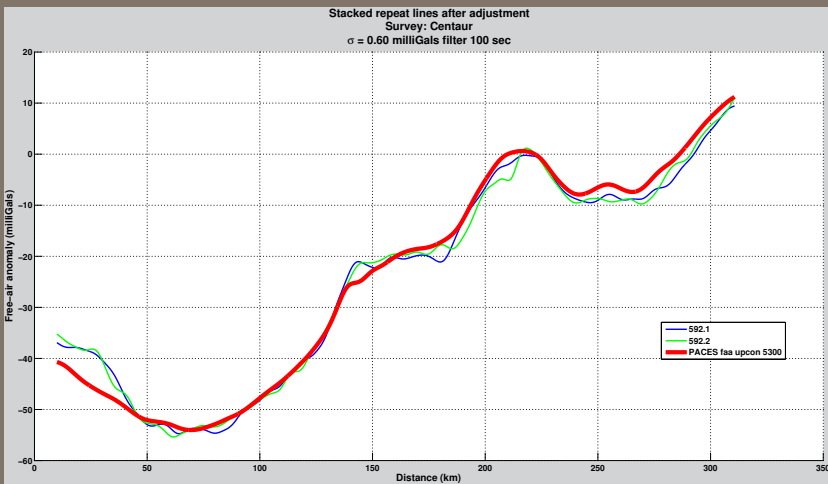
AEROGRAV PROCESSING SOFTWARE

The AeroGrav Data Processing software is designed to be used in the field to quickly process data after each survey flight.

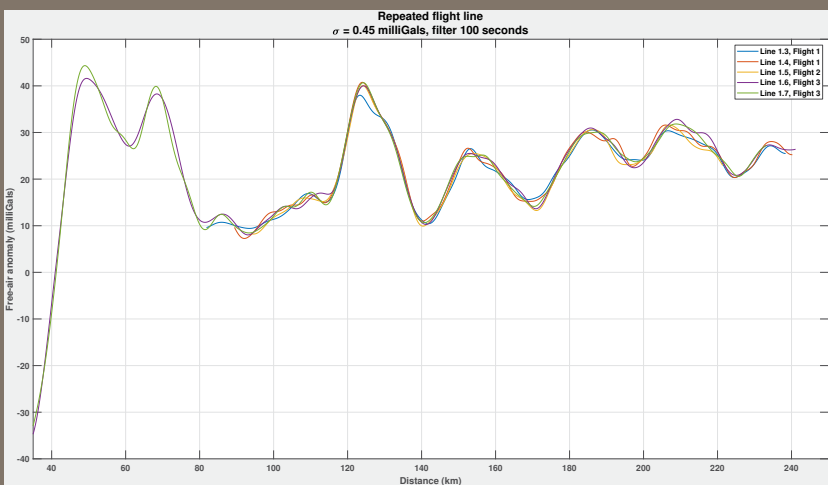
The raw field data from the survey aircraft and ground GPS base station can be quickly processed to produce the free-air and Bouger gravity anomalies along survey lines. The processed data can be exported to mapping packages such as Geosoft Oasis Montaj or the Generic Mapping Tools (GMT) for such tasks as survey line leveling, gridding and mapping. With rapid data turnaround, possible data quality issues or system problems can be identified and operation issues are dealt with in a timely fashion.



Sample Data



The TAGS-7 data shown above are two repeat measurements of the free-air anomaly acquired on a flight line at 5460 meters altitude. The red line is the free-air anomaly derived from public-domain land gravity data, upward continued to the flight height. The terrain was varied, ranging from 60 to 650 meters above sea level. With a 100 second filter, the standard deviation of the repeats was 0.60 mGals



The TAGS-7 data shown above are five repeat measurements of the free-air anomaly acquired on a flight line at 3120 meters altitude. The terrain was generally mountainous, ranging from 1450 to 2900 meters above sea level. With a 100 second filter, the standard deviation of the repeats was 0.45 mGals.

SPECIFICATIONS

COMPONENT	VARIABLE	SPECIFICATIONS
SYSTEM PERFORMANCE	ACCURACY:	< 0.7 mGal
SENSOR	WORLDWIDE RANGE: DYNAMIC RANGE: DRIFT: TEMPERATURE SETPOINT: DYNAMIC REPEATABILITY:	20,000 mGal ± 500,000 mGal 3 mGal per month or less 60° to 65°C (140° to 149°F) 0.25 mGal @ 50,000 mGal horizontal 0.50 mGal @ 100,000 mGal horizontal 0.50 mGal @ 100,000 mGal vertical
STABILIZED PLATFORM	PLATFORM PITCH: PLATFORM ROLL: CONTROL: Period Damping	± 35 degrees ± 35 degrees 4 to 4.5 minutes 0.707 of critical
CONTROL SYSTEM	RECORDING RATE: SERIAL OUTPUT: ADDITIONAL I/O:	20 Hz RS-232 Sensor temperature
MISCELLANEOUS	OPERATING TEMPERATURE: STORAGE TEMPERATURE: POWER EQUIPMENTS: WEIGHT DIMENSIONS:	5° to 50°C (41° to 122°F) -10° to 50°C (14° to 122°F) (70 W @ 27°C (81°F) nominal) and (250 W max warmup) 80-265 VAC, 47 – 63 Hz 75 kg (165 lb) sensor 25 kg (55 lb) electronics / UPS 58.4 x 53.3 x 55.9 cm (23 x 21 x 22 in) (not including electronics)

SPECIFICATIONS SUBJECT TO CHANGE. PART NUMBER 862700 REV 2



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