



Hansa Luftbild goes completely digital

The beginning of the 2006 flying season marks the beginning of a new era for Hansa Luftbild. The company has acquired a Z/I Imaging Digital Mapping Camera from Intergraph GmbH, Germany. With this acquisition the company now possesses the most modern remote sensing technology on the market and has a completely integrated digital photogrammetric workflow.



The Digital Mapping Camera (DMC) offers high geometrical resolution and outstanding performance. The array sensor delivers stable and precise image geometry and produces the data in the standard central perspective view. Furthermore, the customary Forward Motion Compensation (FMC) does not have to be dispensed with, as this compensatory system has been taken over by the electronic image drift balance Time Delayed Integration (TDI) feature. The technology of the camera is based on Charge Coupled Device (CCD) frame (matrix) technology. Data is stored in three Flight Data Storage (FDS) units / Mission Data Records (MDR) which have a total capacity of 840 GB. The system can store more than 2,000 images with full resolution (12 bit, in 4-channel colour mode) which corresponds to more than 5 conventional rolls of film. Improved image quality even for flights made during bad weather, geometric precision and quick processing turnaround will enable Hansa Luftbild to meet the increasing demand for both quality and speed.

The most important new feature by comparison with the technology to date is the 4-channel colour mode. The software which processes the raw data can produce several different types of output files simultaneously from flight data extracts, in the requested colour, black and white, colour or colour infrared. Thus the imagery is available for immediate and varied types of postprocessing.

The image capture parameters of the DMC are as good as, or better, than those of a standard film camera. The digital capture technology provides improved radiometric resolution (12 bit), which, for example allows for clearer detail interpretation in shaded areas. The grain of the film is no longer relevant. Using full-framed CCD sensors the DMC image data has a known, precise and stable geometry, thus eliminating the need for fiducial marks. Stable geometry combined with high radiometric resolution improves measurement accuracy by comparison with film images. With over 100 megapixels the DMC is superior to medium format digital cameras and can achieve far more in a short flight time.



A project always begins with a survey flight. The effective useable image width allows for an economically expedient survey flight planning, which compensates in part for the increase in image numbers. The new DMC ensures successful project throughput from beginning to end. With this investment Hansa Luftbild has ensured its place as a market leader.

DMC Specifications

Components		
Sensor	panchromatic	colour
CCD-chip type	array	array
Number of sensor channels	4	4
Sensor size [pixel, rows * columns]	4084 * 7128	2048 * 3072
Focal length lens [mm]	120	25
Pixel size [µm]	12	12
Radiometric resolution sensor [bit]	12	12
Radiometric resolution dynamic range [bit]	12	12
Field of view -cross track [°]	74	
Field of view - along track [°]	44	
Spectral bands		RGB, CIR
Operating parameters		
Effective sensor size [pixel, rows * columns]	7,680 * 13,824	
Ground resolution [GSD,cm] / altitude [m]	10 / 1,000	
“ “ “	5 / 500	
Flight altitude [m] from - to	500 - 8,000	
Minimal shutter speed	1 / 300	
Minimal repetition rate between images	2.1 secs for GSD = 5 cm / overlap=60%	
On-board storage capacity [images]	2,200	

Fax Response

+0049 251 / 2330 - 113

- Yes, please send me further information about the DMC and its operational potential.
- I would prefer to be contacted personally in order to discuss the DMC and it's operational potential.
- While the DMC is of less importance to me, I would be interested in receiving further information about _____

My contact details:

Organisation

Name

Address

Country

Phone/Fax

E-mail