Cooper Aerial Survey’s Precise Photo Positioning

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Summary: From the view of an aerial survey company the precision and reliability of the CCNS4 guidance and management system are explained.


IGIs Computer Controlled Navigation System (CCNS4) and World Wide Mission Planning software (WWMP) have revolutionised aerial photography.

Whilst airborne the high resolution monitors of the CCNS4 allowed precise positioning of the platform during the data acquisition phase. For the pilot, the ability to see a range of useful information on the monitor eased the workload in the cockpit. This was of huge importance during operations in high density traffic areas where the Time and Distance to End of Line functions were critical to both pilot and air traffic controller.

Another very useful function was the ability to route direct to the start of the line over hundreds of miles of desert saving both time and valuable sun angle. Using Zoom In and Zoom Out, the lines could be flown to the required accuracy on a repeatable basis.

After each flight, the simple down-loading (post flight process) was achieved on a laptop computer, thus enabling the crew to observe, post flight, their progress on the project and check photo centre positions. The whole project was completed over a one month period with the software and hardware being 100% reliable throughout.

Due to the nature of the countries involved, the whole survey had to be completed before the films could be processed and checked. This placed a great deal of importance on the correct positioning of each

Two Cooper Aerial Survey Commander aircraft
photo as the aircraft and crew had already returned to the UK by the time the films were processed. All positions checked out correctly, to the satisfaction of the customer.

In our opinion the product is excellent, and thus is used in all six of our aerial survey aircraft, including the two UK Ordnance Survey aircraft.

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