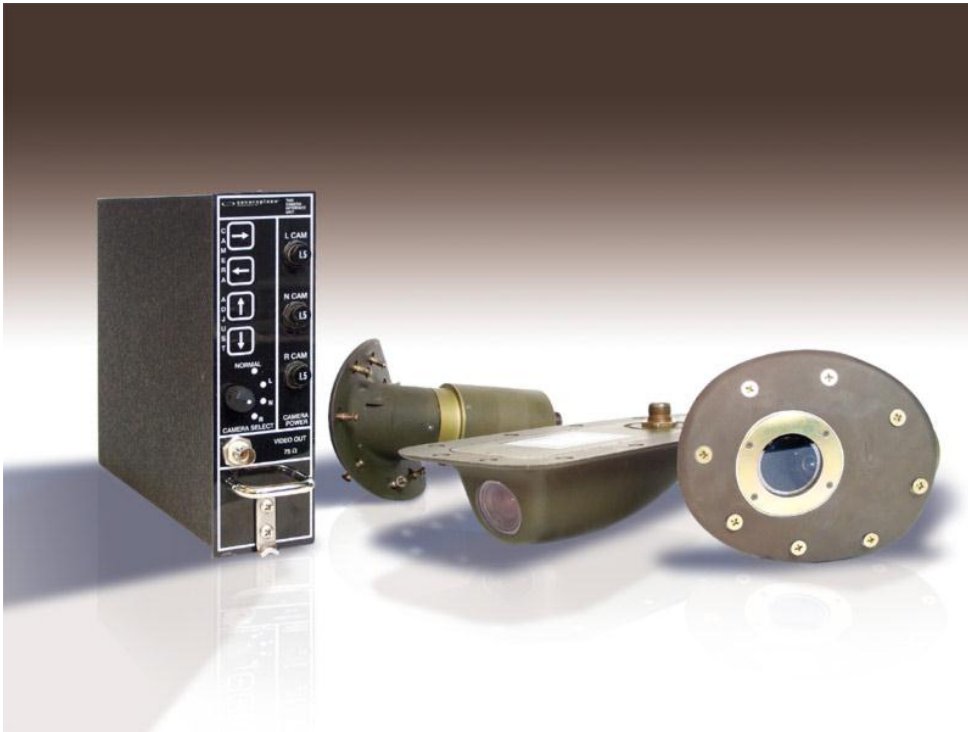


Airborne video cameras

Ground maneuvering camera system (GMCS)



Key features

- Standard equipment aboard Boeing 777-300 aircraft
- High reliability, electronic shutter and iris control
- Automatic/manual electronic viewing angle adjustment—no moving parts
- Excellent anti-blooming control—no bright "hot spots"
- Situational awareness for taxi maneuvers
- Expanded dynamic range—operates in low-light to full sunlight conditions
- Fully developed, installed and certified

Securaplane's ground maneuvering camera system (GMCS) was developed for large air transport aircraft, and is standard equipment aboard all Boeing 777-300 aircraft.

It provides pilots with real-time views of the landing gear, ground conditions and proximity to the pavement edge during taxi maneuvers using cameras mounted behind the nose gear and in both leading edges of the horizontal stabilizer. The images appear on a three-way, split screen, flight deck video display. The basic system is comprised of three cameras and a taxi camera interface unit (TCIU).

GMCS cameras operate in light levels ranging from bright sun and snow to full moon, night-flight conditions. The TCIU can provide fixed views and can be preprogrammed for dynamic video switching.

The environmentally sealed cameras have been designed and certified for the rugged external aircraft environment.

Securaplane

Our product competencies and services:
Aircraft security systems | Airborne video cameras | Aircraft batteries | Battery chargers | Inverters | Converters | Wireless integration

Airborne video cameras

Ground maneuvering camera system (GMCS)

Specifications

Video display	Up to 6 cameras, NTSC/RS-170A
Video image	Differential composite video
Video output	
Cameras required	0.5 lux, scene of illumination, full video output
Resolution	768 horizontal pixels x 494 vertical pixels
Electronic shutter dynamic range	Greater than 100,000 to 1
Power	28 VDC standard, 3.75 amps maximum current for a 3-camera system with interface unit (115V, 400 Hz optional)

	Taxi camera interface unit (TCIU)	Nose gear taxi camera	Main gear taxi camera
Part number	701435-500	701310-500	701300-500 (left) 701300-501 (right)
Weight	4.75 lb (2.14 kg) 2MCU form factor	2.17 lb (0.98 kg)	1.58 lb (0.71 kg) each, two used
Housing	Aluminum	Aluminum, environmentally sealed, aerodynamic low drag	
MTBF (calculated)	49,163 hours	35,567 hours	35,567 hours
Environmental	Meets RTCA DO-160	Meets RTCA DO-160	Meets RTCA DO-160

Additional applications

Because of its open architecture and modular design, GMCS can be modified to accommodate a variety of uses. Derivative configurations enable flight crews to monitor a wide range of aircraft systems on flight-deck video displays. Internal and external cameras can provide many views of aircraft systems, including

- › Landing gear
- › Engines
- › Control surfaces
- › Cabin and cargo areas
- › Electronic equipment bays



GMCS display

Securaplane

12350 N Vistoso Park Road
 Oro Valley AZ 85755
 USA

Tel: +1 (520) 297 0844
 Fax: +1 (520) 498 4924

www.securaplane.com
 www.meggitt.com

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 smart engineering for
 extreme environments