






## Enhanced AAR Vision Systems for maximum safety of your mission



### Kappa Enhanced Vision Systems

-  Cameras, day & night
-  Management unit / recorder
-  High-resolution panoramic displays and 3D displays
-  Enhanced vision for search & rescue
-  For night and covert operations

realize visions .

# Enhanced AAR Vision Systems

Kappa optronics provides reliable and precise vision solutions for maximum safety of your mission.



www.kappa-optronics.com



## Panoramic Cameras

### Pod/Wing Tip Cameras

### 3D Boom Cameras /HDU Camera

### Video Management Unit Video Recorder

### Displays

### Illuminators

Kappa's Enhanced Vision System combines rugged design refined through experience in harsh environments with mission proved state-of-the-art technology continuously developed and optimized in the AAR Vision System of the A330 MRTT tanker.

### 10 years of experience

With more than 10 years of experience in equipping air tankers, Enhanced Vision Systems from Kappa optronics have consistently proven their value while continually raising the state of the art for AAR Vision.

### For various tanker platforms

Kappa AAR Vision Systems are perfectly suited for various tanker platforms. They have already been installed on the A330, A310, KC135, and are equally well suited for KC130, A400M, KC10, KC390 and more.

## Features & Specs

Full HD progressive Video

60-millisecond glass-to-glass latency

Open modular architecture with upscalable capabilities and module's obsolescence management

State-of-the-art sensor technology with daytime color and nighttime monochrome images, both under various lighting and weather conditions and for covert operations.

Low-latency, high definition enabling machine vision algorithms for Automated AAR.

COTS sensor-based cameras provide the best price-to-performance ratio with high resolution, frame rate and image quality under all conditions, while their modular technology ensures efficient obsolescence management.

IR-Illuminators for night operations and for covert operations

## Aviation Certified

EN/AS 9100

MIL STD 704

DO-178

DO-254

DO-160

FFF retrofit design / FAA Form 8130-3

In preparation: certification for Part 21 Subpart G, EAS Form / FAA Form 8310-3

IPMA certified Project Managers

IPC-A-610

IPC-A-600

IPC J-STD-001

## Modularity of Kappa Enhanced Vision Systems

Kappa's systems feature modularity that enables customized system design conforming to AAR configuration. They offer panoramic view for probe & drogue, HDU, or boom AAR configurations, are equipped with day & night cameras, illuminators including a covert operations mode (MIL-STD-3009 compliant) and an infrared mode to adapt to mission specifics.

System	Values
Cameras, day&night	for any lighting and weather conditions, covert operations
Management unit / recorder	that can include mission-critical overlays and recordings for debriefing and training purposes
Panoramic and 3D displays	high resolution for boom AAR applications
Enhanced vision	for search & rescue using the pan and tilt platform, camera
IR-Illuminators	for night operations



## Cameras, day & night

Military Rugged Design

Single-frame latency

DO178 DAL

## Panoramic and 3D displays

Full HD resolution for either panoramic or 3D view

Low latency

Dynamic image stitching to ensure permanent alignment of the panoramic and 3D images

Commercial off-the-shelf

## Management unit/recorder

Low latency

Customizable software design that enables mission-critical overlays

Data encryption in accordance with the most recent certification standards (AES256, RSA2048)

DO178 DAL

# kappa



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