

MARINE & NAVAL CCTV PROJECT REFERENCES

Imenco Camera Division Marine & Naval Projects Group have designed, manufactured and delivered several hundred harsh environment integrated CCTV and visual surveillance systems for use on Unmanned Surface Vessels (USV), Commercial Ships, Oil & Gas platforms, Naval Surface Ships and Naval Submarines.

A selection of key project references are detailed in this document.





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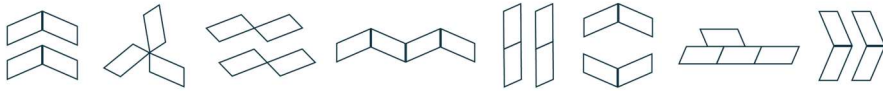
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UNMANNED SURFACE VESSEL PROJECTS

OCEAN INFINITY ARMADA USV

Imenco are proud to have delivered a suite of DNV approved marine cameras for the initial batch of Armada USVs, which are capable of wholly robotic operations. The robot ship design includes highly efficient propellers, engines, and batteries, to reduce the CO² emissions during operations.

CUSTOMER	NORWEGIAN SHIPYARD
Class of Ship	Armada USV
Quantity of Systems delivered	Multiple ship camera systems
Quantity of Cameras delivered	42 DNV Type Approved marine cameras with Hydrophilic film
Equipment Delivery	2024 & 2023

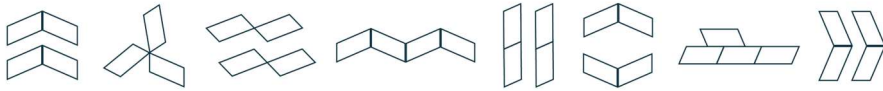


US DEFENSE RESEARCH USV

Imenco are delighted to be providing an initial 360° visual situational awareness system for the NOMARS Medium Unmanned Surface Vessel (MUSV) program.

CUSTOMER	US NAVAL MARITIME INTEGRATOR
Class of Ship	NOMARS <i>Defiant X-Ship</i> MUSV
Quantity of Systems delivered	Initial trial system
Quantity of Cameras delivered	Initial 360° Fisheye marine camera system
Equipment Delivery	2023





NORWEGIAN USV

Imenco have recently delivered a suite of rugged DNV marine cameras as part of the topside sensor payload for multiple advanced Unmanned Surface Vessels (USV).

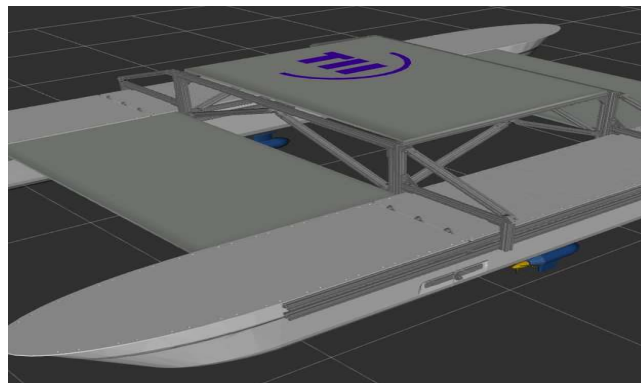
CUSTOMER	NORWEGIAN MARITIME ROBOTICS INTEGRATOR
Class of Ship	Coastal USV
Quantity of Systems delivered	Multiple ship camera systems
Quantity of Cameras delivered	12 DNV Type Approved marine cameras with Hydrophilic film
Equipment Delivery	2023

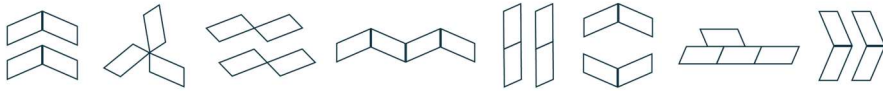


MIDDLE EAST USV

Imenco are delighted to be providing an initial batch of 360° Fisheye camera surveillance systems for a Middle Eastern USV platform, which will carry out autonomous navigation and maritime operations.

CUSTOMER	MIDDLE EAST MARITIME INTEGRATOR
Class of Ship	USV
Quantity of Systems delivered	Initial trial systems
Quantity of Cameras delivered	26 Fisheye 360° marine camera systems
Equipment Delivery	2024





COMMERCIAL SHIP PROJECTS

INCAT AUSTRALIA ELECTRIC FERRY

Incat has always been an innovator and is once again leading the industry by constructing the largest lightweight battery electric ship in the world. Hull 096 is the ninth Incat built vessel for South American company Buquebus. Operating between Buenos Aires and Uruguay, it will be 130 metres long with a capacity to carry 2,100 passengers and 226 vehicles.

Imenco have worked closely with local Australian agent, AMI Marine, to deliver a comprehensive digital marine CCTV system for this cutting edge environmentally friendly electric vessel.

CUSTOMER	AUSTRALIAN SHIPYARD
Class of Ship	Incat Hull 096
Quantity of Systems delivered	1 complete integrated CCTV system
Quantity of Cameras delivered	97 rugged marine cameras, VMS server, switches, 4 client operator stations
Equipment Delivery	2024

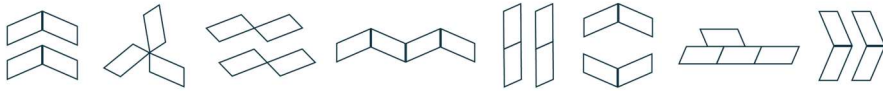


INDONESIA SPLIT HOPPER VESSELS

Imenco are delighted to be working with new Indonesian agent, PT. Nawasena Rahayu Nusantara, to deliver marine CCTV systems for two of these new build commercial vessels.

CUSTOMER	INDONESIAN SHIPYARD
Class of Ship	Split Hopper
Quantity of Systems delivered	2x complete integrated CCTV systems
Quantity of Cameras delivered	14x rugged marine cameras, 2x VMS server/client/switch/UPS
Equipment Delivery	2024





UK RESEARCH VESSEL

Following on from large integrated analogue CCTV system originally delivered in 2013, Imenco have recently completed the commissioning of Phase 1 new digital IP upgrade to control, viewing and recording suite aboard the RRS Discovery at Rosyth shipyard. Phase 2 further upgrade to Imenco high resolution digital marine camera suite is expected next year.

CUSTOMER	UK NATIONAL OCEANOGRAPHY CENTRE (NOC)
Class of Ship	RRS Discovery
Quantity of Systems delivered	Phase 1 Analogue to Digital CCTV Upgrade
Quantity of Cameras delivered	Digital Infrastructure including: VMS server rack, switches, clients, encoders
Equipment Delivery	2023



NORWEGIAN COASTGUARD

Imenco are pleased to deliver a suite of rugged marine/naval cameras for Norway's new ice strengthened coastguard ships.

CUSTOMER	EUROPEAN MARITIME INTEGRATOR
Class of Ship	Jan Mayen Class
Quantity of Systems delivered	3 shipset cameras
Quantity of Cameras delivered	31 rugged marine/naval cameras
Equipment Delivery	2023 & 2022





OCEAN INSTITUTE RESEARCH VESSEL

Imenco are delighted to have worked with their local Spanish agent to deliver a comprehensive subsea monitoring system for the oceanographic Research Vessel Falkor. All subsea equipment is interfaced and controlled via ethernet.

CUSTOMER	SPANISH SHIPYARD
Class of Ship	RV Falkor
Quantity of Systems delivered	Subsea integrated ethernet CCTV monitoring system
Quantity of Cameras delivered	3 subsea HD IP cameras, 3 subsea lamps, 2 interface junction boxes
Equipment Delivery	2022

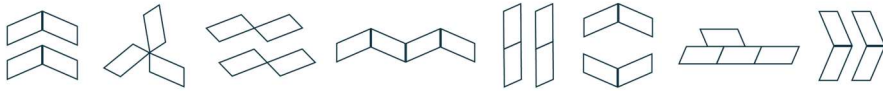


ROYAL AUSTRALIAN NAVY TRAINING SUPPORT VESSEL

Imenco have worked closely with local Australian integrator to deliver a digital CCTV system for the MV Sycamore. The 94-metre civilian ship's primary role is to support maritime aviation training of Defence helicopter flight crews.

CUSTOMER	AUSTRALIAN MARITIME INTEGRATOR
Class of Ship	MV Sycamore, Multi-role Aviation Training Vessel (MATV)
Quantity of Systems delivered	1 complete integrated CCTV system
Quantity of Cameras delivered	24 rugged marine cameras, 4 client operator stations
Equipment Delivery	2022 & 2021





INNOVATIVE ANTARCTIC KRILL FISHING VESSEL

Imenco have worked with Kongsberg Maritime in Norway to deliver a fully integrated system where CCTV images are integrated into the bridge integrated workstation facilitating a unique fusion of functions and operator comfort & efficiency for vessel control and fishery operations. Initial construction of the ship will be at the Tersan Shipyard in Turkey, with final integration taking place at Westcon in Norway.

CUSTOMER	NORWEGIAN MARITIME INTEGRATOR
Class of Ship	Rimfrost Krill Fishing Trawler
Quantity of Systems delivered	1 complete integrated CCTV system
Quantity of Cameras delivered	34 rugged marine cameras, 2 subsea monitoring cameras, 1 VMS Server
Equipment Delivery	2021

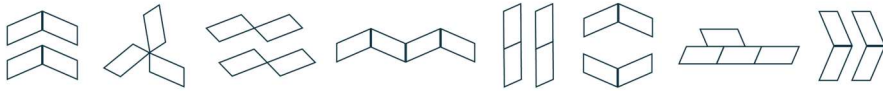


UK FERRY FLEET UPGRADES

Imenco have recently delivered four systems for Ro-Ro ferries operating on the West coast of Scotland.

CUSTOMER	UK MARITIME INTEGRATOR
Class of Ship	MV Caledonian Isles, MV Coruisk, MV Isle of Mull, MV Loch Shira
Quantity of Systems delivered	4 complete integrated CCTV systems
Quantity of Cameras delivered	165 rugged marine cameras, VMS servers, switches, clients, UPS
Equipment Delivery	2021 & 2020





SOUTH AFRICAN NAVY HYDROGRAPHIC SURVEY VESSEL

Imenco are proud to have been selected to provide rugged DNV Type Approved marine CCTV cameras, for integration with the ship's Integrated Platform Management System (IPMS), aboard first of class Project Hotel vessel.

CUSTOMER	DEFENCE INTEGRATOR
Class of Ship	Project Hotel, 95m, ice-strengthened, VARD design
Quantity of Systems delivered	1 shipset cameras
Quantity of Cameras delivered	24 rugged marine cameras
Equipment Delivery	2021



BELGIAN RESEARCH VESSEL

Imenco are proud to have been selected to supply a fully integrated marine CCTV system for another new build research vessel. Three OE17-110 cameras and OE11-150 LED lamps were selected for subsea monitoring and are fully integrated with the topside digital CCTV system.

CUSTOMER	SPANISH SHIPYARD
Class of Ship	RV Belgica II
Quantity of Systems delivered	1 complete integrated CCTV system
Quantity of Cameras delivered	21 rugged marine cameras, 3 subsea monitoring cameras, 4 client operator stations
Equipment Delivery	2020





US COASTGUARD OFFSHORE PATROL CUTTERS

Imenco are delighted to have been down-selected to supply their range of rugged marine CCTV cameras for the first four OPCs for the US Coastguard. Up to 25 OPC vessels are scheduled to be constructed. Two ultra-low light Imenco naval HOSS cameras were chosen for monitoring flight deck operations.

CUSTOMER	US SHIPYARD
Class of Ship	Heritage Class Cutter - Argus
Quantity of Systems delivered	4 shipset cameras
Quantity of Cameras delivered	224 rugged marine cameras, 8 ultra-low light HOSS cameras for flight deck
Equipment Delivery	2022, 2021 & 2020

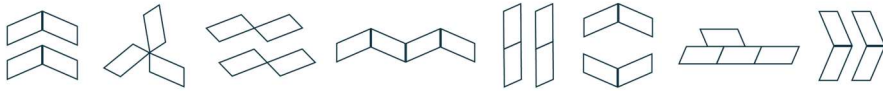


US COASTGUARD HEAVY ICEBREAKERS

Imenco have delivered comprehensive CCTV system upgrades to two US Coastguard heavy icebreakers. The flexible CCTV system utilises existing cabling infrastructure and common equipment from previous Coastguard and Navy CCTV projects, thus simplifying logistical support and reducing installation costs.

CUSTOMER	US COASTGUARD
Class of Ship	USCGC Polar Star (WAGB-10), USCGC Healy (WAGB-20)
Quantity of Systems delivered	2 CCTV systems
Quantity of Cameras delivered	120 rugged marine cameras, various CCTV control equipment
Equipment Delivery	2018





SWEDISH RESEARCH VESSEL

Imenco have recently supplied a fully integrated marine CCTV system for a new build ocean-going vessel for marine research and environmental monitoring. Three OE17-110 cameras and OE11-150 LED lamps were selected for subsea monitoring and are fully integrated with the topside digital CCTV system. System commissioning & training has also recently been completed.

CUSTOMER	SPANISH SHIPYARD
Class of Ship	RV Svea
Quantity of Systems delivered	1 complete integrated CCTV system
Quantity of Cameras delivered	32 rugged marine cameras, 3 subsea monitoring cameras, 18 client operator stations
Equipment Delivery	2019 & 2018

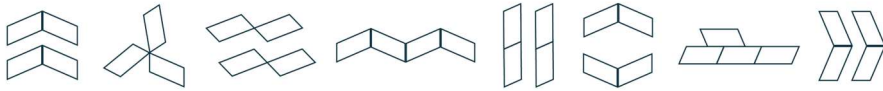


LARGE RoPax FERRY

As one of their largest CCTV systems ever delivered, Imenco are proud to have been chosen to supply an integrated digital CCTV system to this prestigious new build RoPax ferry for a European operator.

CUSTOMER	GERMAN SHIPYARD
Class of Ship	RoPax Honfleur
Quantity of Systems delivered	1 complete integrated CCTV system
Quantity of Cameras delivered	180 rugged marine HD cameras, 16 client operator stations
Equipment Delivery	2018





SPECIALIST LARGE WELLBOAT

Imenco have worked with Kongsberg Maritime in Norway to deliver a fully integrated system where CCTV images are integrated into the bridge integrated workstation facilitating a unique fusion of functions and operator comfort & efficiency for vessel control and fishery operations.

CUSTOMER	NORWEGIAN SHIPYARD
Class of Ship	Ronja Storm
Quantity of Systems delivered	1 complete integrated CCTV system
Quantity of Cameras delivered	28 rugged marine cameras, 2 client operator stations
Equipment Delivery	2018

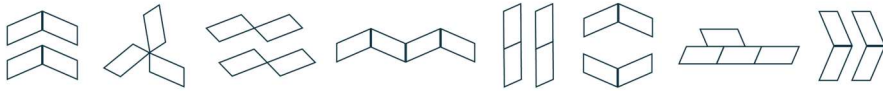


LIVESTOCK CARRIERS

Operating in the Far East, Imenco have supplied rugged marine CCTV systems for three of the world's largest purpose-built livestock carriers. External cameras are rugged DNV Type Approved stainless steel types well suited to the regular heavy cleaning schedule aboard the ships.

CUSTOMER	SINGAPOREAN SHIPYARD
Class of Ship	MV Ocean Drover, Shearer & Swagman
Quantity of Systems delivered	3 complete integrated CCTV systems
Quantity of Cameras delivered	62 rugged marine HD PoE cameras, 9 client operator stations
Equipment Delivery	2017





HYBRID FERRIES

Destined for service on the West coast of Scotland these 100m RoRo ferries, with groundbreaking LNG propulsion, are fitted with comprehensive Imenco CCTV systems as part of the overall Electrical, Instrument and Telecom (EIT) package.

CUSTOMER	UK SHIPYARD
Class of Ship	MV Glen Sannox, MV Glen Rosa
Quantity of Systems delivered	2 complete integrated CCTV systems
Quantity of Cameras delivered	132 rugged marine cameras, 10 client operator stations
Equipment Delivery	2017





OIL & GAS PROJECTS

SEMI SUBMERSIBLE DRILLING RIG

Imenco are delighted to have recently delivered an upgraded HD IP BOP Inspection System for a semi-submersible drilling rig operating in the North Sea.

CUSTOMER	MAJOR DRILLING CONTRACTOR
Class of Ship	Semi-submersible drilling rig
Quantity of Systems delivered	1 complete integrated BOP inspection system
Quantity of Cameras delivered	1 NJORD DNV PTZ camera, 1 ethernet control, display & recording unit
Equipment Delivery	2022

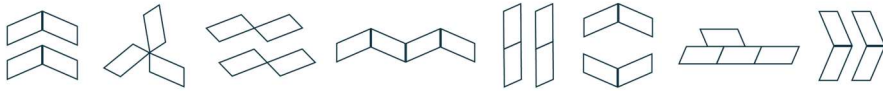


LNG TANKER

Advanced hybrid system upgrade to existing ship's analogue CCTV system, including running Ethernet over existing Coax ships cables.

CUSTOMER	EUROPEAN LNG OPERATOR
Class of Ship	LNG Tanker
Quantity of Systems delivered	1 complete integrated CCTV system
Quantity of Cameras delivered	10 marine cameras c/w 3 dual sensor thermal, VMS server, 3 client operator stations
Equipment Delivery	2021





SHUTTLE TANKERS

Imenco are proud to be selected to provide advanced integrated CCTV system packages to a series of four new build LNG powered shuttle tankers intended for operation in the North Sea by a major operator.

CUSTOMER	SOUTH KOREAN SHIPYARD
Class of Ship	SN2241, 2242, 2256, 2257
Quantity of Systems delivered	4 complete integrated CCTV systems
Quantity of Cameras delivered	112 rugged marine cameras c/w ATEX options, 20 client operator stations
Equipment Delivery	2019

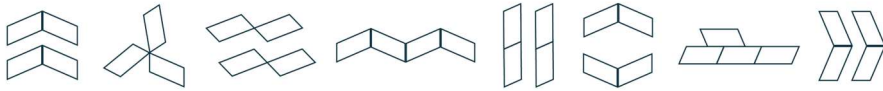


OFFSHORE SUPPORT VESSELS

Imenco have recently commissioned marine CCTV system packages aboard three offshore support vessels currently operating in the West Africa region.

CUSTOMER	WEST AFRICA OFFSHORE SUPPORT OPERATOR
Class of Ship	MV Pacific Parakeet, Warden & Wizard
Quantity of Systems delivered	3 complete integrated CCTV system
Quantity of Cameras delivered	18 rugged marine cameras, 3 client operator stations
Equipment Delivery	2019 & 2018





CHEMICAL TANKERS

Marine CCTV system packages have been supplied by Imenco CCTV group to a series of two new build chemical tankers operating in Northwest Europe.

CUSTOMER	NORWEGIAN OPERATOR
Class of Ship	TK1201, 1202
Quantity of Systems delivered	2 complete integrated CCTV systems
Quantity of Cameras delivered	24 rugged marine cameras c/w ATEX options, 6 client operator stations
Equipment Delivery	2017

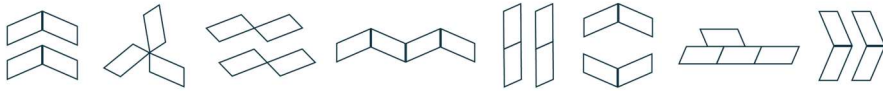


HYPERBARIC WELDING CAMERAS for REMOTE PIPELINE REPAIR SYSTEM

The Imenco RPRS monochrome welding camera was specifically designed to provide close-up, real-time images of the arc welding process within a subsea hyperbaric pipeline welding chamber.

CUSTOMER	NORTH SEA OIL & GAS OPERATOR
Class of Ship	Remote Pipeline Repair System (RPRS)
Quantity of Systems delivered	7 camera systems to bespoke customer specification
Quantity of Cameras delivered	7 specialist monochrome welding cameras
Equipment Delivery	2015





DRILLING RIGS

Imenco have supplied, commissioned and supported rugged marine CCTV systems for two semi-submersible drilling rigs operating in the North Sea.

CUSTOMER	LEADING OFFSHORE DRILLING OPERATOR
Class of Ship	Semi-submersible drilling rigs
Quantity of Systems delivered	4 complete integrated CCTV systems
Quantity of Cameras delivered	70 rugged marine cameras, 16 client operator stations, c/w ATEX options for both
Equipment Delivery	2020



LNG CARRIERS

Marine CCTV system packages have been supplied by Imenco CCTV group as part of system refits to a fleet of eight LNG carriers operating in the Middle East.

CUSTOMER	MIDDLE EAST OPERATOR
Class of Ship	LNG Carriers
Quantity of Systems delivered	8 complete integrated CCTV systems
Quantity of Cameras delivered	40 rugged marine cameras c/w ATEX options, 16 client operator stations
Equipment Delivery	2017





NAVAL SURFACE SHIP PROJECTS

US NAVY DHOSS for CVN / FFG / LPD CLASSES

IMENCO Defense Solutions, the award-winning supplier of marine and naval visual surveillance systems, is proud to announce a recent major award for a fixed price, 5-year, Indefinite Delivery Indefinite Quantity (IDIQ) contract from Naval Air Warfare Center Aircraft Division (NAVAIR) Lakehurst, Visual Landing Aids Group. The program objective is acquisition and support of rugged Imenco DHOSS and ODIN Naval Camera Stations to support Aircraft Launch and Recovery Equipment's (ALRE) PMA251 Visual Landing Aids (VLA) Programs. The Imenco Camera Stations aid in providing low-light surveillance, recording and video distribution of flight deck and surrounding airspace on USN aircraft carriers, frigates and amphibious-class ships.

CUSTOMER	US NAVY NAVAIR LAKEHURST
Class of Ship	Gerald R Ford Class CVN, Nimitz Class CVN, Constellation Class Frigate FFG & San Antonio Class LPD
Quantity of Systems delivered	8x shipsets of cameras
Quantity of Cameras delivered	76 Naval MIL-SPEC cameras including DHOSS Dual Sensor Naval PTZ & ODIN Naval PTZ
Equipment Delivery	2025 & 2024

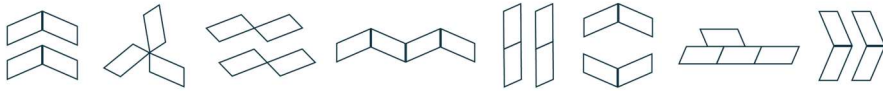


UK ROYAL NAVY TYPE 45 DESTROYER UPGRADES

Imenco are pleased to be supporting local UK Defence Integrator with Visual Surveillance System (VSS) camera improvements as part of the overall Platform Management Systems mid-life upgrade.

CUSTOMER	UK DEFENCE SYSTEM INTEGRATOR
Class of Ship	Type 45 Destroyer, Daring Class
Quantity of Systems delivered	2 shipsets
Quantity of Cameras delivered	70 rugged naval marine cameras
Equipment Delivery	2024 & 2023





IRISH NAVY

Imenco are proud to announce a recent major contract award from the Irish Department of Defence for the supply and installation of digital marine CCTV system upgrades to two separate OPV's.

CUSTOMER	IRISH NAVAL SERVICE
Class of Ship	RÓISÍN Class OPVs, P61 & P63
Quantity of Systems delivered	2 complete integrated CCTV systems
Quantity of Cameras delivered	40 rugged naval marine cameras, 2 VMS server racks, 16 client operator stations
Equipment Delivery	2024

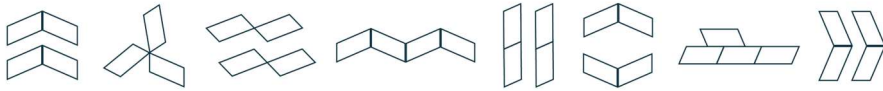


POLISH NAVY

Imenco are pleased to be supporting the Polish Navy with supply of advanced naval CCTV systems for two new-build Delfin SIGINT vessels. The ships will be constructed by Remontowa Shipbuilding S.A. as the Polish subcontractor for SAAB Sweden.

CUSTOMER	POLISH DEFENCE SYSTEM INTEGRATOR
Class of Ship	Delfin-class SIGINT/ELINT vessels
Quantity of Systems delivered	2 complete integrated CCTV systems
Quantity of Cameras delivered	40 rugged naval marine cameras, 2 VMS servers, 6 client operator stations
Equipment Delivery	2025 & 2024





US NAVY AMPHIBIOUS ASSAULT SHIPS AMERICA CLASS

Imenco have been recently contracted to supply a complete topside visual surveillance system allowing comprehensive coverage of the full-length flight deck, waterline and hangar bays on the new build America Class LHA-8 and LHA-9.

CUSTOMER	US DEFENCE INTEGRATOR
Class of Ship	America Class Amphibious Assault Ship, USS Bougainville (LHA-8) & USS Fallujah (LHA-9)
Quantity of Systems delivered	2x shipset cameras
Quantity of Cameras delivered	51 MIL-SPEC ultra-low light, PTZ and Fixed Cameras, including DHOSS and ODIN
Equipment Delivery	2024 & 2020

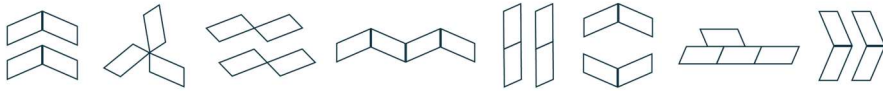


US NAVY DESTROYER

Imenco are proud to have supplied approximately one thousand of their proven rugged naval CCTV cameras for the front-line US Navy Zumwalt Class "Stealth" Guided Missile Destroyers.

CUSTOMER	US DEFENCE INTEGRATOR
Class of Ship	Zumwalt Class Destroyer, DDG-1000, DDG-1001 & DDG-1002
Quantity of Systems delivered	2x shipset cameras plus spares
Quantity of Cameras delivered	1,000 rugged naval PoE cameras, c/w mounting bracket options
Equipment Delivery	2025 & 2019





PHILIPPINES NAVY CORVETTES

Imenco are delighted to announce a recent major contract award from Electrix Co. Ltd, South Korea for the supply of CCTV systems to the Philippines Navy Future Corvettes program. The contract covers two new ships being constructed at Hyundai Heavy Industries (HHI) facilities.

CUSTOMER	HYUNDAI HEAVY INDUSTRIES (HHI), SOUTH KOREA
Class of Ship	HDC-3100 Future Corvettes
Quantity of Systems delivered	2 complete integrated CCTV systems
Quantity of Cameras delivered	130 rugged naval marine cameras, 2 VMS server racks, 12 client operator stations
Equipment Delivery	2024 & 2023



ITALIAN NAVY FRIGATES

Imenco have recently supplied multiple ship upgrades for the Italian Navy, via local Video Management Software solutions specialist integrator.

CUSTOMER	ITALIAN VIDEO ANALYSIS SPECIALIST INTEGRATOR
Class of Ship	FREMM Frigates, various
Quantity of Systems delivered	Multiple ship upgrades
Quantity of Cameras delivered	63 rugged marine PTZ cameras
Equipment Delivery	2024, 2023 & 2022





US NAVY SUPPORT VESSEL

Imenco UK and Imenco LLC recently collaborated to complete a comprehensive analogue to digital CCTV upgrade project for US Navy support ship Zeus, at a Virginian shipyard. Imenco are delighted to retain this longstanding customer for over 20 years!

CUSTOMER	MILITARY SEALIFT COMMAND (MSC)
Class of Ship	USNS Zeus cable laying ship (T-ARC-7)
Quantity of Systems delivered	1 complete integrated digital CCTV system
Quantity of Cameras delivered	50 rugged marine PTZ & 360° cameras, 2 VMS server racks, 26 client operator stations
Equipment Delivery	2023

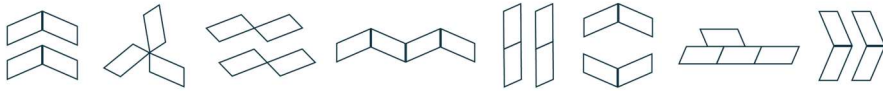


US NAVY FFG(X) FRIGATES

Imenco are proud to have been recently selected to supply a large suite of rugged PTZ surveillance cameras, to be integrated within the Unclassified Video System (UVS) aboard the first 2 ships in the Constellation class of guided missile frigates.

CUSTOMER	US DEFENCE INTEGRATOR
Class of Ship	Constellation Class Frigates, USS Constellation (FFG-62) & USS Congress (FFG-63)
Quantity of Systems delivered	2 shipsets cameras
Quantity of Cameras delivered	112 rugged naval marine cameras, inclusive of 26 new ODIN naval PTZ cameras
Equipment Delivery	2023





UK ROYAL NAVY T31 FRIGATES

Imenco are delighted to announce a major contract win for supply of visual surveillance systems for the new Royal Navy Type 31 general purpose frigates. The initial 5 ships will be constructed at Babcock’s Rosyth facility in Scotland. The Imenco CCTV system offers comprehensive surveillance and security around the ship and will also integrate with the ships Combat Management System (CMS) and Integrated Platform Management System (IPMS).

CUSTOMER	UK DEFENCE INTEGRATOR – BABCOCK INTERNATIONAL
Class of Ship	Type 31 Frigate; Arrowhead 140 Platform
Quantity of Systems delivered	5 complete integrated CCTV systems
Quantity of Cameras delivered	260 rugged naval marine cameras, 5 VMS server racks
Equipment Delivery	2022 thru’ 2026

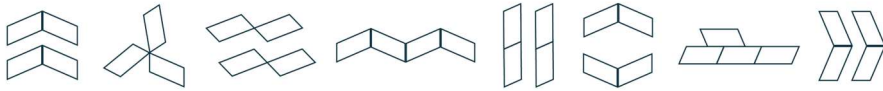


ROYAL CANADIAN NAVY JOINT SUPPORT SHIPS

Imenco are proud to have been selected to provide rugged marine and naval mil-spec CCTV cameras, for integration with the ship’s Integrated Platform Management System (IPMS). These two new ships will be constructed at Seaspan Vancouver.

CUSTOMER	CANADIAN DEFENCE INTEGRATOR
Class of Ship	Protecteur Class; Joint Support Ship (JSS)
Quantity of Systems delivered	2 shipset cameras
Quantity of Cameras delivered	82 rugged naval marine cameras, inclusive of 8 ultra-low light HOSS cameras for flight deck
Equipment Delivery	2024 & 2021





ROYAL AUSTRALIAN NAVY OFFSHORE PATROL VESSELS

Imenco are delighted to have worked through their local Australian agent to deliver rugged digital camera systems for the prestigious RAN SEA1180 project.

CUSTOMER	DEFENCE INTEGRATOR
Class of Ship	Arafura Class Offshore Patrol Vessel
Quantity of Systems delivered	12 shipset cameras
Quantity of Cameras delivered	120 rugged marine HD cameras
Equipment Delivery	2021 & 2020

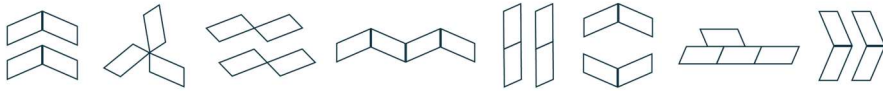


ROYAL NEW ZEALAND NAVY SUPPORT VESSEL

Imenco have recently delivered a complete integrated CCTV package for this new build replenishment vessel designed for Maritime Sustainment Capability (MSC) as well as humanitarian & disaster relief operations. System commissioning & training has also recently been completed.

CUSTOMER	SOUTH KOREAN SHIPYARD
Class of Ship	HMNZS Aotearoa
Quantity of Systems delivered	1 complete integrated CCTV system
Quantity of Cameras delivered	88 rugged marine cameras c/w ATEX options, 11 client operator stations
Equipment Delivery	2019





ROYAL CANADIAN NAVY REPLENISHMENT VESSEL

The Resolve-class auxiliary oiler replenishment (AOR) vessel is a retrofit of MV Asterix container vessel to support the Royal Canadian Navy's at-sea replenishment capability. Imenco have recently completed a system expansion upgrade to the original CCTV system first delivered in 2016.

CUSTOMER	CANADIAN SHIPYARD
Class of Ship	Resolve Class Auxiliary Oiler Replenishment (AOR)
Quantity of Systems delivered	1 complete integrated CCTV system
Quantity of Cameras delivered	53 rugged marine cameras c/w ATEX options, 6 client operator stations
Equipment Delivery	2019 & 2016



INDIAN NAVY VESSEL MID-LIFE UPGRADES

Imenco Camera Group have provided a series of CCTV camera upgrades in support of various Indian Naval vessels.

CUSTOMER	INDIAN DEFENCE INTEGRATOR
Class of Ship	Various
Quantity of Systems delivered	14 shipsets cameras
Quantity of Cameras delivered	70 rugged marine PTZ cameras
Equipment Delivery	2017 to 2024





ROYAL MALAYSIAN NAVY LITTORAL COMBAT SHIPS

Imenco are proud to have been selected to provide rugged marine and naval mil-spec CCTV cameras, for integration with the ship's Integrated Platform Management System (IPMS), aboard this class of six new RMN LCS vessels.

CUSTOMER	DEFENCE INTEGRATOR
Class of Ship	Maharaja Lela Class Littoral Combat Ships (LCS)
Quantity of Systems delivered	6 shipsets cameras
Quantity of Cameras delivered	162 rugged marine & naval MIL-SPEC cameras
Equipment Delivery	2018

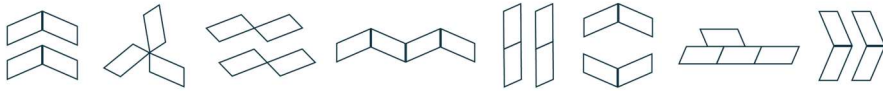


US NAVY AMPHIB LOW LIGHT SURVEILLANCE SYSTEM

Building on the success of their original HOSS system, Imenco have now completed the delivery of 22 low light surveillance systems for mid-life upgrades on various US Navy amphibious ships. Imenco have also supplied comprehensive support packages including ILS/RMS/DMSMS data, commissioning and training.

CUSTOMER	US NAVY, NAVAIR
Class of Ship	LHA/LHD/LSD Class Amphibious Assault Ships
Quantity of Systems delivered	22 complete integrated CCTV systems
Quantity of Cameras delivered	~ 650 rugged naval MIL-SPEC cameras, ~ 155 operator stations
Equipment Delivery	2008 to 2018





US NAVY CVN CARRIER UPGRADES

Imenco have provided their rugged marine PTZ CCTV cameras for a recent mid-life upgrade of both the US Navy CVN-73 and CVN-74 Nimitz Class aircraft carriers.

CUSTOMER	US DEFENCE INTEGRATOR
Class of Ship	Nimitz Class Aircraft Carrier, USS George Washington (CVN-73) & USS John C. Stennis (CVN-74)
Quantity of Systems delivered	2 shipset cameras
Quantity of Cameras delivered	34 rugged marine PTZ cameras
Equipment Delivery	2022 (CVN-74) & 2018 (CVN-73)

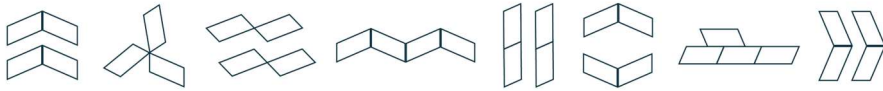


INDIAN NAVY TECHNOLOGY DEMONSTRATION VESSEL

Imenco are delighted to have completed the delivery of a marine CCTV system for an Indian Navy technology demonstration vessel being constructed by an Indian shipyard.

CUSTOMER	INDIAN SHIPYARD via NORWEGIAN INTEGRATOR
Class of Ship	VS4720 TDV
Quantity of Systems delivered	1 complete integrated CCTV system
Quantity of Cameras delivered	10 rugged marine PTZ cameras, 16 operator stations
Equipment Delivery	2017





US NAVY EXPEDITIONARY FAST TRANSPORT (EPF)

The Imenco Helicopter Operations Surveillance System (HOSS) provides comprehensive flight deck coverage, even in very low light, aboard the high speed, all aluminium, EPF catamarans.

CUSTOMER	US DEFENCE INTEGRATOR
Class of Ship	Spearhead Class expeditionary fast transport (EPF, previously called JHSV)
Quantity of Systems delivered	16 complete integrated CCTV systems
Quantity of Cameras delivered	16 MIL-SPEC ultra-low light HOSS PTZ cameras, 16 operator stations
Equipment Delivery	2010 to 2023

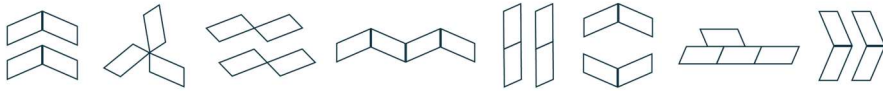


ROYAL CANADIAN NAVY / CANADIAN COASTGUARD ARCTIC OFFSHORE PATROL SHIPS

Further to original 2017 delivery of 6x shipset cameras for the Royal Canadian Navy (RCN) AOPS, Imenco are delighted to have completed the recent delivery of further 2x shipsets cameras for the Canadian Coastguard (CCG) variant of the ship.

CUSTOMER	CANADIAN DEFENCE INTEGRATOR
Class of Ship	Harry DeWolf Class offshore patrol vessel
Quantity of Systems delivered	8x shipsets cameras (6x for RCN, 2x for CCG)
Quantity of Cameras delivered	480 rugged marine & naval MIL-SPEC cameras
Equipment Delivery	2024 & 2017





US NAVY HIGH SPEED TRANSPORT VESSEL

The former Hawaii Superferry Huakai has recently been converted for US Navy use as high-speed transport vessel USNS Guam. Imenco have recently commissioned the large digital CCTV system at an American shipyard.

CUSTOMER	US MARINE SYSTEM INTEGRATOR
Class of Ship	USNS Guam (T-HST-1), high speed transport
Quantity of Systems delivered	1 complete integrated CCTV system
Quantity of Cameras delivered	76 rugged naval MIL-SPEC cameras, 4 operator stations
Equipment Delivery	2016



ROYAL THAI NAVY FRIGATE

The rugged Imenco marine and naval CCTV cameras have been fully integrated with the ships Integrated Platform Management System.

CUSTOMER	SOUTH KOREAN SHIPYARD via DEFENCE INTEGRATOR
Class of Ship	DW3000 Frigate
Quantity of Systems delivered	1 shipset cameras
Quantity of Cameras delivered	24 rugged marine & naval MIL-SPEC cameras
Equipment Delivery	2016





GERMAN NAVY FRIGATES

The three Sachsen Class frigates were built under the trilateral frigate agreement, signed by the Netherlands, Germany and Spain. As part of a comprehensive mid-life upgrade program Imenco have delivered 3 shipsets of Power over Ethernet (PoE) naval cameras.

CUSTOMER	DEFENCE INTEGRATOR
Class of Ship	Sachsen Class Frigate (F124)
Quantity of Systems delivered	4 shipsets cameras
Quantity of Cameras delivered	92 rugged naval MIL-SPEC PoE cameras
Equipment Delivery	2021, 2020 & 2016

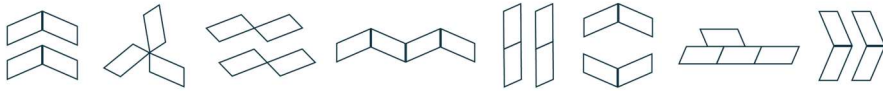


ROYAL AUSTRALIAN NAVY FFG FRIGATES

The Imenco compact marine PTZ cameras chosen for the RAN FFG Heli-deck upgrade included the dual sensor configuration, allowing true 24/7 surveillance by way of both colour visible zoom and LWIR thermal sensors.

CUSTOMER	AUSTRALIAN DEFENCE INTEGRATOR
Class of Ship	Adelaide Class Frigate (FFG)
Quantity of Systems delivered	4 flight deck camera systems
Quantity of Cameras delivered	4 dual sensor PTZ cameras, 8 operator stations
Equipment Delivery	2014





ROYAL CANADIAN NAVY HALIFAX FRIGATES

Imenco have been delighted to support the Halifax Class Modernization Program and have delivered over 300 Power over Ethernet (PoE) cameras to date, both colour with IR LED illuminators, and LWIR thermal imaging options.

CUSTOMER	CANADIAN DEFENCE INTEGRATOR
Class of Ship	Halifax Class Frigate (FFH)
Quantity of Systems delivered	12 shipsets cameras
Quantity of Cameras delivered	300 rugged naval MIL-SPEC PoE cameras
Equipment Delivery	2012 to 2018

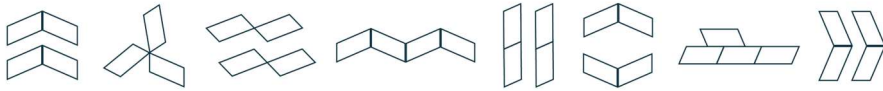


US NAVY AMPHIBIOUS TRANSPORT DOCK SHIPS

The Imenco Helicopter Operations Surveillance System (HOSS) cameras have been installed to provide flight deck coverage, as well as general topside security & surveillance, aboard all the LPD-17 San Antonio Class amphibious transport dock ships.

CUSTOMER	US NAVY, NAVAIR AND US DEFENCE INTEGRATORS
Class of Ship	San Antonio Class, Landing Platform Dock (LPD-17 to LPD-31 inclusive)
Quantity of Systems delivered	15 shipsets cameras
Quantity of Cameras delivered	100 MIL-SPEC ultra-low light HOSS PTZ and fixed cameras
Equipment Delivery	2003 to 2025





NAVAL SUBMARINE PROJECTS

US NAVY LOW LIGHT SUBSEA SURVEILLANCE SYSTEM

Imenco are proud to have been selected by the US Navy to upgrade an existing in-service submarine, with an updated low light visual surveillance system, after previously supplying the original system 20 years ago.

CUSTOMER	US NAVAL SHIPYARD
Class of Ship	US Submarine
Quantity of Systems delivered	1 complete shipset cameras
Quantity of Cameras delivered	17 ultra-low light TRZ subsea cameras, 22 ultra-low light fixed cameras
Equipment Delivery	2024

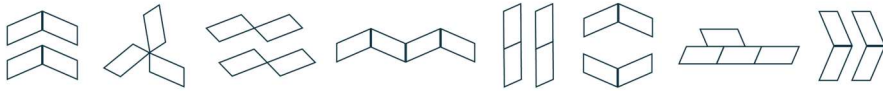


ROYAL NAVY REMOTE VISUAL SURVEILLANCE SYSTEM

Imenco are delighted to have been down selected to supply the inboard digital surveillance system covering 3 shipsets for an advanced class of UK submarines.

CUSTOMER	UK DEFENCE INTEGRATOR
Class of Ship	UK Submarine
Quantity of Systems delivered	3 complete integrated CCTV systems
Quantity of Cameras delivered	72 cameras, inclusive of 18 radiation hardened, 6 workstations, 6 network switches
Equipment Delivery	2022 & 2021





ROYAL NAVY TAHS CCTV SYSTEM

Imenco have recently developed a new, all digital, High Definition, TAHS monitoring CCTV system for a future UK submarine project.

CUSTOMER	DEFENCE INTEGRATOR
Class of Ship	UK Submarine
Quantity of Systems delivered	1 complete integrated CCTV system
Quantity of Cameras delivered	3 ultra-low light HD IP subsea cameras, 6 subsea LED lamps, 1 control & display units
Equipment Delivery	2021



ROYAL NAVY TAHS CCTV SYSTEM

Imenco have designed, qualified and delivered seven shipsets of CCTV systems for monitoring the Towed Array Handling System (TAHS) aboard an advanced class of UK submarines. New contract award 2021 for major system upgrade which has recently been delivered.

CUSTOMER	DEFENCE INTEGRATOR
Class of Ship	UK Submarine
Quantity of Systems delivered	7 complete integrated CCTV systems + spares
Quantity of Cameras delivered	80 ultra-low light subsea cameras, 80 subsea LED lamps, 19 control & 26 display units
Equipment Delivery	2006 to 2024





US NAVY SUBMARINE PROJECTS

Imenco have been proud to deliver various low light camera systems, into multiple US Navy submarine programs, over a period of many years.

CUSTOMER	US DEFENCE INTEGRATOR(S)
Class of Ship	US Submarine Platforms, various
Quantity of Systems delivered	Multiple shipsets, various projects
Quantity of Cameras delivered	~ 150 low light cameras, monochrome and colour, various types
Equipment Delivery	2002 to 2019

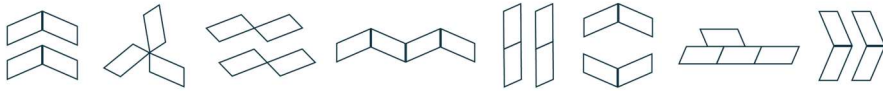


FAR EASTERN NAVY TAHS CCTV SYSTEM

Imenco have recently delivered one further shipset of CCTV systems, making five now delivered in total, for monitoring the Towed Array Handling System (TAHS) aboard a new build class of Far Eastern submarines.

CUSTOMER	DEFENCE INTEGRATOR
Class of Ship	Far Eastern Navy Submarine
Quantity of Systems delivered	6 complete integrated CCTV systems + spares
Quantity of Cameras delivered	30 ultra-low light subsea cameras, 58 subsea LED lamps, 6 control & display units
Equipment Delivery	2014 to 2023





ROYAL NAVY DIVER DEPLOYMENT CCTV SYSTEM

These Imenco low light camera systems are used to monitor diver deployment operations aboard an advanced class of UK submarines.

CUSTOMER	DEFENCE INTEGRATOR
Class of Ship	UK Submarine
Quantity of Systems delivered	7 shipsets cameras + spares
Quantity of Cameras delivered	~ 160 low light subsea cameras, ~ 20 subsea LED lamps
Equipment Delivery	2006 to 2024

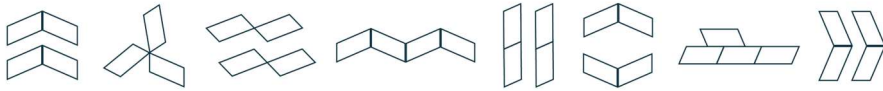


ROYAL NAVY TAHS CCTV SYSTEM REFURBISHMENT

Imenco have developed, qualified and delivered five shipsets of low light cameras and lamps for monitoring the Towed Array Handling System (TAHS) aboard an existing in-service class of UK Royal Navy submarine.

CUSTOMER	DEFENCE INTEGRATOR
Class of Ship	UK Submarine
Quantity of Systems delivered	5 shipsets cameras
Quantity of Cameras delivered	31 low light subsea cameras, 42 subsea LED lamps
Equipment Delivery	2015 and 2024





SPANISH NAVY CCTV SYSTEM

For monitoring the safety hatch aboard a new build class of Spanish submarines Imenco have supplied four shipsets of low light subsea camera systems.

CUSTOMER	SPANISH SHIPYARD
Class of Ship	Spanish Navy Submarine
Quantity of Systems delivered	4 complete integrated CCTV systems + spares
Quantity of Cameras delivered	4 ultra-low light subsea cameras, 4 control & display units
Equipment Delivery	2024, 2023 & 2012

