Above Wet Lab and Staging Bay
Removed the helideck and replaced with a custom new deck with fittings for 10 foot and 20 foot sized international standard shipping containers. Added connections for power, water, and compressed air to support science laboratory and control vans. Deck also has a special foundation to support the ROV winch system.

NEW COLORS
Falkor
The entire ship was repainted from mast to keel to reflect the new Falkor branding and better reflect modern ship color schemes.

UPGRADED INTEGRATED BRIDGE SYSTEM (ELECTRONIC CHARTS)
Bridge
A new version of the Electronic Chart System that involved software and hardware upgrades was installed.

ADDED SECOND SPEED LOG
Gondola
A second speed log that works with a different technology (magnetic versus acoustic) was installed to increase sensor redundancy.

SHIP’S NETWORK
Falkor
Upgrades of cybersecurity inside the ship, including access control list for the network, training of the crew, implementation of password management system, ethical hacking and penetration testing conducted, monitoring software for network control, backup and recovery for configuration files, and monitoring of configuration changes.

NEW MAIN ENGINE OIL FILTERS
Engine Room
Installed automatic oil filters for main engines to improve lube oil filtration on engines.

REPLACED MAIN GENERATORS
Engine Room
Installed two new MTU 16V2000 generators to replace original MWM generators and shaft generators. Increased electrical capacity from 500 KW to 720 KW for each generator.

AUTOMATED CONTROL SYSTEM FOR COOLING WATER PUMPS
Engine Room
Installed variable frequency drive system to control seawater cooling pumps to optimize their electrical power consumption.

LIBRARY AUDIO UPGRADE
Library
Audio capabilities from ROV and science operations brought into the library.

WIRELESS NETWORK
Falkor
All access points have been upgraded to support the latest wireless technology and increase bandwidth over WiFi.

SHIP’S NETWORK
Falkor
Switches replaced by chassis switches connected over 10Gbps fibre optics, with a redundant power supply.

ATSC MODULATION
Science Control Room and Av Room
Installation of Internal Video Modulation System over ATSC (Advanced Television Systems Committee). The system is capable of modulating video signal from the Digital Matrix into TV channels around the vessel.

NEW WATER MIST FIRE FIGHTING SYSTEM
Engine Room
Installed new automatic sprinkler system in the Engine Room and Emergency Generator Room.

HA SERVER
Av Room
Falkor’s primary server was updated to HA (High Availability) architecture.

NETAPP SCIENCE STORAGE
Av Room
Additional 50TB was added to the NetApp Array.

INTERCOM ROV COMMUNICATIONS
Science Control Room, Library and Av Deck
Installation of a state-of-the-art communication system for ROV operations available for the ROV Pilot Technicians and Science Team.

Falkor
All access points have been upgraded to support the latest wireless technology and increase bandwidth over WiFi.

REPLACED EMERGENCY GENERATOR
Main Deck
Replaced existing generator with a new, higher-capacity generator.

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