

# Laboratories, offices, rooms

## Crows nest and mast

- Air intake for [pCO2 Monitoring System General Oceanics](#)
- [Magnetometer System \(Magnetics\)](#)
- [Panoramic Infrared Camera First Navy](#)
- IR camera FLIR M400
- IR camera FLIR MD625
- Nautical X-band radar antenna (starboard side) for [Ice radar \(sigma S6\)](#) ;
- Scientific X-band radar antenna (port side) for [Wave Radar System \(WaMoSII\)](#) (wave and ice functionality)
- PanoMax 360° panoramic camera
- Mounting of several meteorological instruments
- Antennas for Radio-LAN (during MOSAiC)
- Antennas of Iridium system

## Monkey deck / Bridge deck / P-Deck

- Mounting of several nautical radio systems
- Mounting of several meteorological instruments; GPS antennas;
- Antenna for permanent data and communication line (leased line not applicable north or south of ca.  $\pm 71^\circ$  latitude)

## Deck A

- A-121 Bridge:  
Nautical operations:  
Helicopter flight control;  
Entrance to crows nest;  
(Slave) operation of [Multibeam Echo Sounder Hydrosweep DS3](#); Operation of [Fishnet Echo Sounders](#) ; [Trimble GPS Receivers](#) ; Whale watching acquisition laptop; Operation of [Underwater Positioning Systems](#) ;
- A-113: Scientific working room.  
Operation of [Fishing Echo Sounder \(Simrad EK 80 with ADCP\)](#) ; Operation of [Panoramic Infrared Camera First Navy](#) ; Electronics for CCTV;  
Patch field for electric interface to other labs (winch room, aerologie-lab)
- A-112: Aerologie lab.  
[Water Vapour Isotopes Analyzer](#) ; [Neutron Monitor](#) ; [Radiosondes Sounding System](#) ; Operation of [GPS Wave Buoy](#); Operation of Distrometer.  
Operation of [Cloud Camera](#) ;  
X-Band radar operation (for WaMoSII) - operation of [WaMoSII](#) system (wave and ice);  
Patch field for electric interface to other labs (A-113, winch room)
- A-106 [Weather Station](#) (Bordwetterwarte): Operation of all meteorologic devices
- Observation alley: [Myon Detector](#) ;
- A-107 Radio office: Operation of all communication systems (despite of bridge systems)
- A-111 Pantry and telephone room (Iridium telephone set)

outside:

- 2x [Zodiac](#); Gangways; Mummy chair
- 10' Dangerous goods container (DG class 8)

## Deck B

- "Blue Saloon" - Library
- B-241 Ship's office
- B-206 Helicopter office
- B-222 Chief scientist office

## Deck C

- Helicopter hangar and helicopter landing zone
- Ballon filling room, balloon store and helium store (outside)
- [Hospital](#)
- Lecture room: Audio and video installation for presentations; MS Surface HUB
- Mess room II
- Red saloon
- Assembly point (see [Ship safety instructions](#))

## Deck D

- Winch control room: Operation station for winches and side bar cranes; Operation of winch measurement and control facility;  
Electric and phaser optic interface (patch field) to winch cables; Electric interface to other labs (A-113, aerologie-lab);  
Deck unit and control PC for [CTD Probe with Carousel Water Sampler](#) ;  
Deck units for COAX and phaser optic telemetry systems;

(Slave) operation of [Multibeam Echo Sounder \(Hydrosweep DS3\)](#) ; (Slave) operation of [Sediment Echo Sounder \(Parasound P70\)](#) ; (Slave) operation of [Fishing Echo Sounder \(Simrad EK 80 with ADCP\)](#) ;

- Winch control fore room: A4 printer
- Backward winch control room (i.a. A-Frame)
- Laundry
- Galley
- Mess room I and bar "Zillertal"
- [Souvenir Shop](#)
- Compressor room
- Entrance to carpenter workshop and suitcase store
- Petrol store
- Dangerous goods store (DG class 2)
- Dangerous goods stores (DG class 8 and 9)
- Dangerous goods stores - outside cabins on foredeck (DG class 4 and 5)
- Foredeck with capacity for 12x 20' container (in 1st layer)

## Deck E

- Cargo room 1: space for 10x 20' containers
- Science store: Generator and dewars for [Liquid Nitrogen](#) ; Gas bottles with reference gases for pCO2 devices; [Moonpool](#) device carriers; hydroacoustic underwater positioning systems; [GPS Wave Buoy](#)
- E-525A - Electronics for hydroacoustic systems:  
[Multibeam Echo Sounder \(Hydrosweep DS3\)](#); [Sediment Echo Sounder \(Parasound P70\)](#) ; Underwater positioning systems [Ixblue POSIDONIA](#) and [Ixblue GAPS](#) ; [SyncUnit](#) .
- E-550 - Hydroacoustic office:  
Operation of: hydroacoustic systems: [Multibeam Echo Sounder \(Hydrosweep DS3\)](#) ; [Sediment Echo Sounder \(Parasound P70\)](#) ; [Fishing Echo Sounder \(Simrad EK 80 with ADCP\)](#) ; [Acoustic Doppler Current Profiler \(ADCP\)](#); [SyncUnit](#) ; additionally 2 PC workplaces for bathymetry.(with [Sound Velocity Probe \(MIDAS SVP\)](#) interface)
- E-554 User room: equipped with several computers with Microsoft Windows and Apple; A3 printer; PCs with Internet connectivity.
- E-558 System manager room: Operation and control of nearly all IT infrastructure
- E-533 Server room: All servers and network devices; A0 plotter
- Wet lab I: 2x Fume hood; Connectivity to sea water; incubator; patch field for electric interface to other labs (winch room, aerologie-lab, A-113);
- Wet lab II: -80° freezer (500 liter capacity); Crush ice generator; combined GPS/Iridium transmitter to receive satellite data inside this lab. [Millipore pure water systems](#) (type 2 and type 1);
- Chemical lab: [Millipore pure water systems](#) (type 2 and type 1); Fume hood; freezer
- E-536 Dry lab I; E-534 Dry Lab II; E-532 Dry lab III; E-530 Dry lab IV - Bord/wall between dry labs can be removed
- E-526/528 Measure and record room.
- E-546 Dark room (formerly for photo development)
- E-523 Dangerous goods store (DG classes 6 and 8)
- E-523-A Salinometer room: 2x [Optimare Precision Salinometer \(OPS\)](#) ; storage of [Sound Velocity Probe \(MIDAS SVP\)](#)
- E-521 Telephone office
- E-519 Porter's office / telephone booth (Iridium telephone set)
- [Moonpool](#) room
- E-506 Pulser station
- Friction room: friction winch GE51.1/GE51.2; Winches GE72.1, FN62.1 and FN62.2;
- [CTD](#) station
- Working corridor: Waste station
- [Working deck](#): Deck winches (EL031, SE32.1; SE32.2; AWI-004 (or alternatively EL030), net winch, mooring winch and horizontal capstan);  
Operation of devices lift up with 5t and 20t side bars;  
Place for 4 containers (+4 in second layer);  
Rear stern ramp;  
Storage and mount point for ice gangway
- Decks work shop

## Deck F

- Rear container room: Store for radio active materials (DG class 7) ; [Millipore pure water systems](#) (type 2 and type 1);  
(Space for one or two temporarily installed deep freezers);  
Height of the room is limited so only containers with height of 8' can be stored.  
- Isotope Container: Equipped as laboratory with Szintillation Counter  
- 4x Bio laboratory container: Equipped as temperature regulated laboratory; taps for seawater, warm and cold freshwater.
- Fish room: Cold water generator with UV lamp
- F-602 Fish laboratory
- F-606/F-608/F-610 Freezing rooms: First one typically cooled to +5°, second to 0° and third to -20°.
- F-624 Winch room: Winches GE6352.1 and GE6352.2
- F-632 Gravimeter room: [Marine Gravimeter System \(KSS32\)](#) ; Standby of LaCoste Romberg relative Gravity Meter; [Motion Sensors \(Hydrins 1 and Hydrins 2\)](#) ; [Dual Axis Doppler Log \(DO-Log\)](#) Electronic, [Anschütz Gyrocompass](#)
- F-621 Entrance to box keel
- [Shops](#)
- F-650 Swimming pool, gym room, sauna
- Fore container room: Capacity for 6 containers

## Deck G

- Engine Control Room
- G-707: [4H-Jena Ferrybox](#) ; [pCO2 Monitoring System General Oceanics](#) ; [pCO2 Monitoring System OceanPack SAE \(SubCtech\)](#)  
Water regulation infrastructure for these oceanographic systems

- G-711 Public laundry
- Staircase: Membrane pump and rotation pump for [seawater supply](#) (network 3); intake for seawater pipe cleaning liquid
- Intake for [seawater](#) network (6);

## Deck H

- Bow cross propeller tunnel room:  
[Automated Filtration for Marine Microbes \(AUTOFIM\)](#) and its seawater intake (network 4);  
 Intake for [seawater](#) network (3)

## Box keel

- [Thermosalinograph \(TSG\): 2x SBE21 and 2x SBE38](#) and its seawater intake (network 5);  
 Intake for [seawater](#) network (1 and 2);  
 Intake for seawater pipe cleaning liquid;
- outside: [C-Keel Sound Velocity Probe](#) ;  
 Transducers of nautical systems: [Navigation Echo Sounder](#) ; [Electromagnetic Log \(EM-Log\)](#) ; [Dual Axis Doppler Log \(DO-Log\)](#) ;  
 Transducers of scientific systems: [Multibeam Echo Sounder \(Hydrosweep DS3\)](#) ; [Sediment Echo Sounder \(Parasound P70\)](#) ; [Fishing Echo Sounder \(Simrad EK 80 with ADCP\)](#) ; [Acoustic Doppler Current Profiler \(ADCP\)](#) ; [POSIDONIA](#) (flush antenna) ;