WOODSONS
MARINE ELECTRONICS

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Lunar Bow arrives home in Peterhead

Lunar Bow arrives Peterhead with wind gusting to 67knots

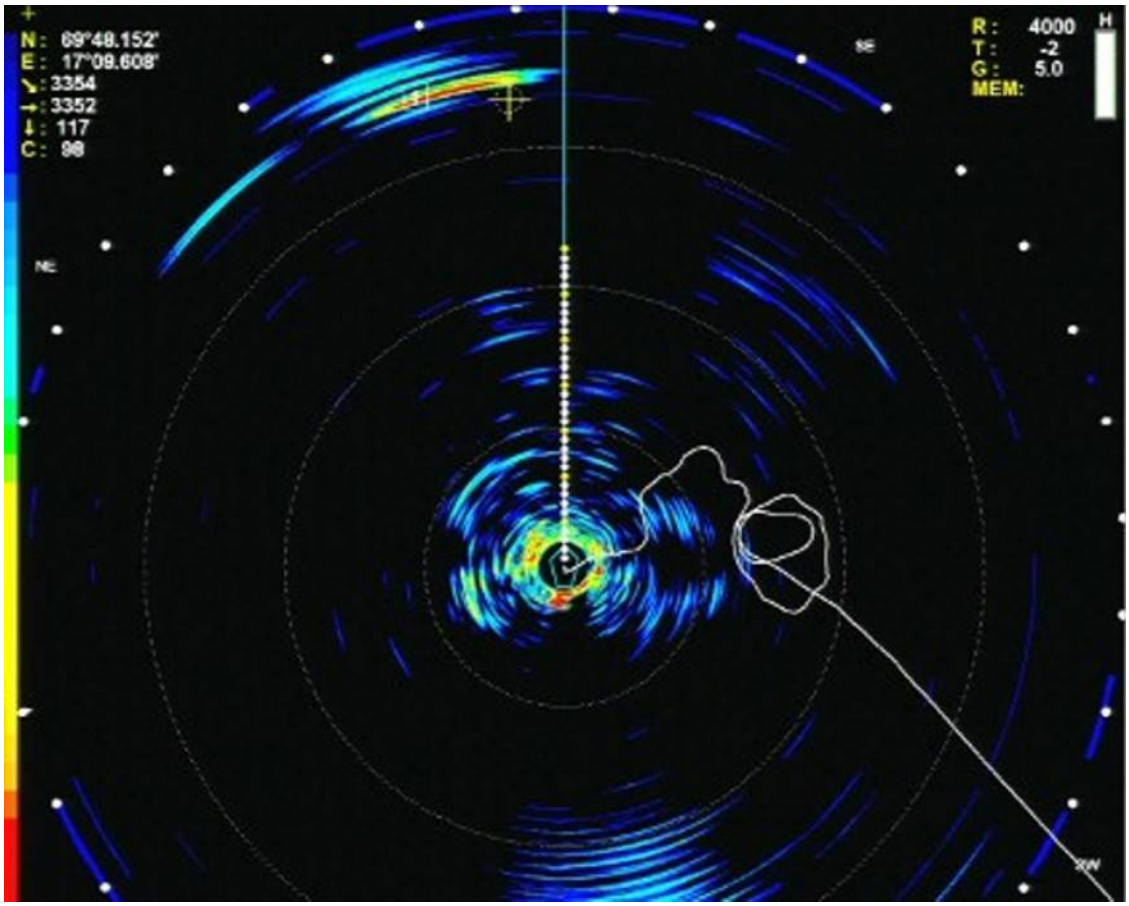
The Lunar Bow arrived home from Norway after a rough 21 hour crossing in good time. Woodsons of Aberdeen Ltd supplied, installed and commissioned the comprehensive package of electronic equipment housed in Lunar Bow's wheelhouse, which includes a communication office and a relaxing day area to port.

Most of the electronics are housed in an inverted U-shaped console on the starboard side, the freestanding forward side of which provides immediate access to the electronic units and cable looms via hinged paneled doors. Engine and tiller controls are duplicated at separate steering consoles and aft at the trawl console, ensuring that the skipper can maintain full control of the vessel while monitoring hauling and shooting operations.

Lunar Bow Wheelhouse

When searching for marks on the grounds, the first signs of fish will be detected by the newly developed Kaijo Ultra low frequency and high frequency, 164kHZ, sonars. The Kaijo KCS3220Z is the first of a new generation of the fully stabilised low frequency sonars to be installed to Scottish owners.

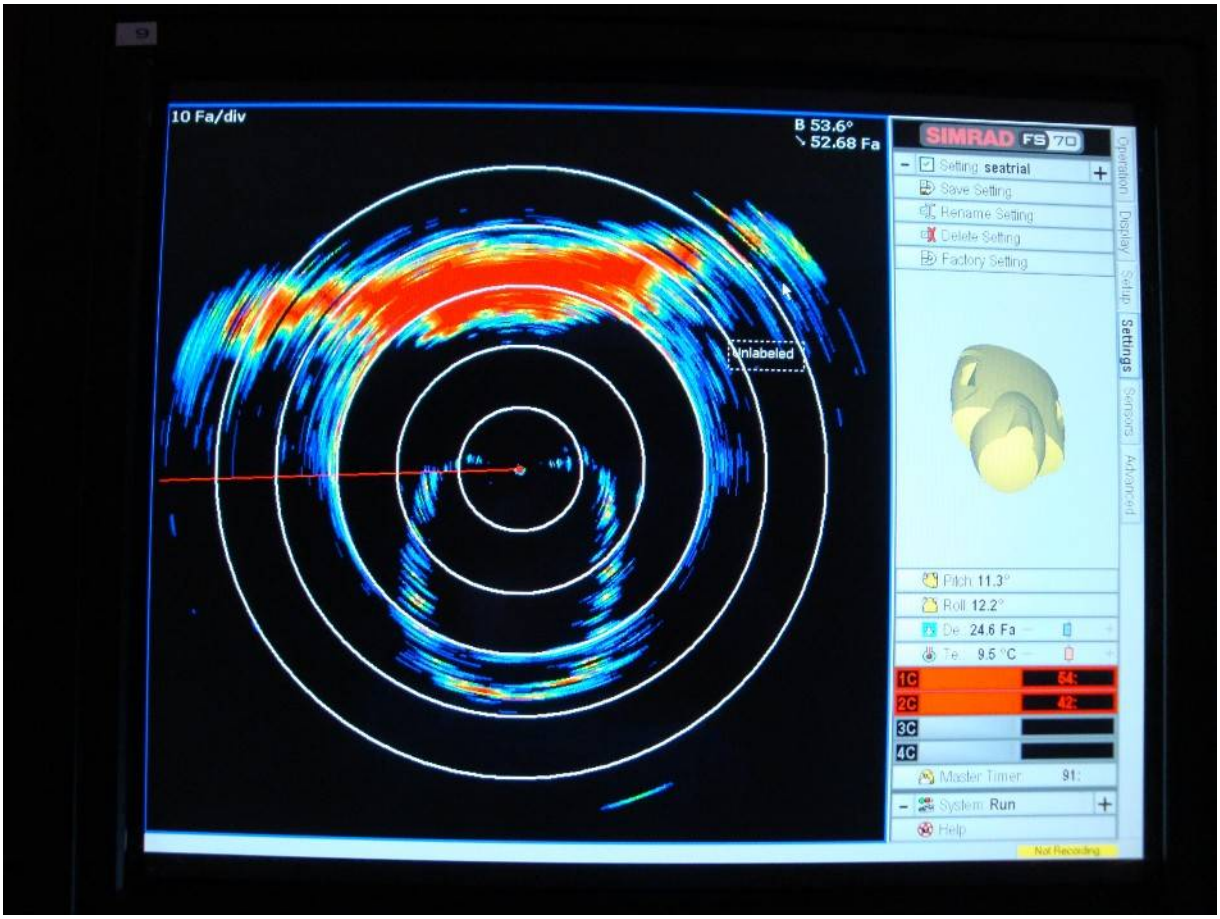
The new sonar has been several years in development and is specifically designed to provide Super long range detection with ultra high definition of target. This is achieved by way of a newly developed and patented transmission system unique to Kaijo. Development engineers at Kaijo also succeeded in their aim of achieving zero tolerance on side lobe transmissions when designing the new transducer, thus providing clear distinct targets at long range even when searching in areas of hard seafloor and shallow water. Features also include, full stabilisation, dual vertical slice, 2 separate screens for searching on different ranges and full target tracking.



New Kaijo Low frequency KCS3220 easily targets Herring at 4km

For vertical sounding Skipper Alex Buchan relies on a two Simrad ES-60 sounders operating on 38/50 and 200kHZ. The unique WASSP multibeam fishing system provides information on both density and movement of fish as the ship passes over invaluable for manouvering the gear into the correct position. There is also a Kaijo DCG-200 tide machine enabling the movement of pelagic shoals in relation to underwater currents to be accurately monitored.

Lunar Bow uses a Simrad FS-70 trawl system, with data from the profile and down sounders and four newly developed Marport catch sensors displayed on two 19in Hatteland flat screens, producing a vertical picture of the net opening, showing footrope distance from the bottom and fish entering the net and moving down the tunnel.



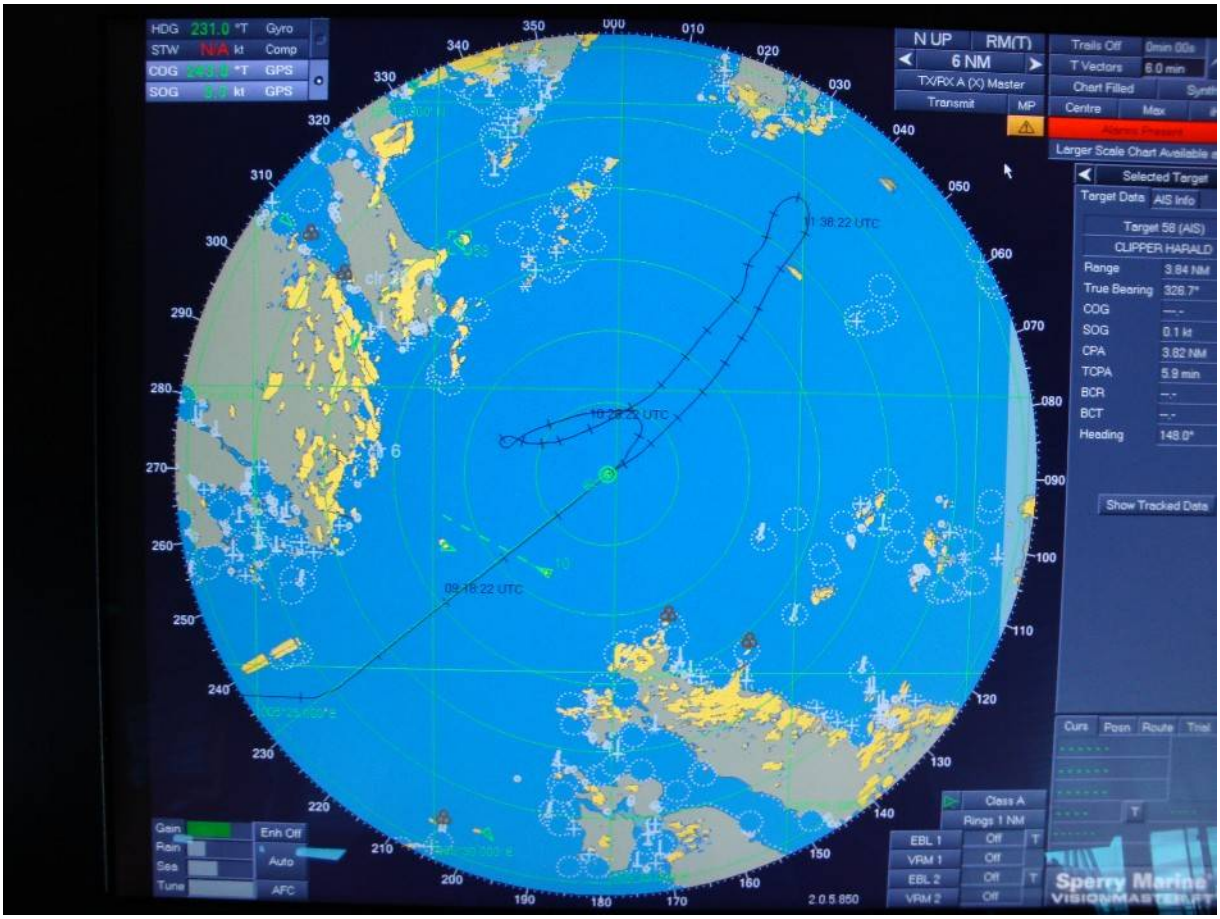
Simrad FS70 trawl sonar shows surface with net below

To ensure fishing continuity while working several hundred miles from harbour Lunar Bow is also equipped with a Wesmar TCS 380 trawl sonar.

Woodsons also supplied and installed a cableless ScanBas pelagic net monitoring system that includes the TE40-2 Scanmar Trawleye sensor to provide Skipper Buchan with continually updated information on the movement and size of fish progressing down the tunnel of the trawl. 2 x SS4 catch sensors indicate the amount of fish in the cod end as well as additional depth/temp sensor for Purse net.

When deciding on equipment for the new Lunar Bow, skipper Alex Buchan, put great emphasis on redundancy in case of equipment failure during fishing operations therefore a number of vital equipments were duplicated.

Course direction is controlled by one of two Simrad AP50 autopilot systems interfaced to dual Simrad GC80 compact gyro systems. Two Leica MX 420 DGPS receivers relay positioning information to, Olex 3D dual screen seabed mapping and Sodena Easywin plotting systems, which include ARPA input and Class A AIS systems provided by the all new Visionmaster X & S Band radars.



New Visionmaster Chart radar with chart overlay during fishing trials in Fjord

The Xband radar above also includes Chart overlay providing detailed chart with target overlay and ARPA/AIS with up to 100 targets tracked simultaneously.

Information from all the main electronic units is displayed through a 16 x 12 video matrix switch to 12 fully integrated Hatteland 20,19,17 and 15in flat screen monitors. A remote display is also provided aft at the trawl console to provide a clear picture of the relative position of other vessels fishing close-by through a choice of radar, plotter or other system connected to the Matrix. A flat screen display is also provided below decks in the lounge area where the Olex plotter is displayed.

A 19in Viewsonic monitor is incorporated in the forward starboard console to view fish sampling readouts replayed to the wheelhouse and engineroom PCs via fibre optic connections from a set of Marel M2200 electronic fish sampling scales.

SEVSAT Communications Rack in wheelhouse

Satellite communications onboard Lunar Bow are handled by a SEVSAT Broadband at Sea system supplied and installed by Woodsons of Aberdeen. Developed by Ship Equip AS, the world's leading providers of maritime broadband communications, SEVSAT is a high quality VSAT broadband connection with a flexible bandwidth and various numbers of voice-channels depending on the preferred bandwidth. In addition to providing safety benefits by virtue of a continuous high speed broadband connection, SEVSAT provides the vessel's crew with access to low cost telephone, email and internet services throughout the ship.

Olex Plotter steers course home to Peterhead in Gale Force 10 conditions

Lunar Bow's beautifully designed wheelhouse and natural clean lines

Raw Power! The Impressive Lunar Bow in Dry Dock at Wartsila