

RVOC 2019 CMRE ANNUAL UPDATE



Ian Sage AFNI
Director, Marine Operations

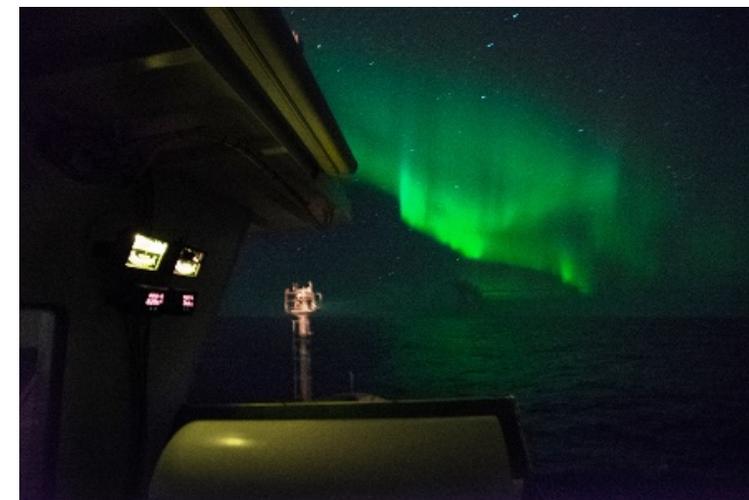
2018 - A year of mixed fortunes



Polar cruise completed early April

Return to La Spezia

6 week dry dock in Italian Naval Base



Extensive Dry Dock package

- 2 X 8000 Hour services on main propulsion generators
 - Close to complete rebuilds
 - 2 x SSG auxiliary rebuilds
 - Extensive deck and plate replacement
 - Overhaul of all deck machinery
 - Classification surveys
 - Salt water piping and cooling system refurbishment
 - Shaft removal and inspection
 - Full recoat including all topsides
 - Asbestos encapsulation for some areas of floor tiling
-
- All completed in 36 days
 - Budget estimate (initial 700k Euro) raised to 1.5M Euro – actual 1.46M Euro

Undocking - a cautionary tale



Double check tank levels

Thorough pre-briefing

Clear lines of communication



Back to sea - on time and budget Mediterranean cruise for ONR followed by a return to the High North June through to August



Science and NATO exercises



A year of 2 halves - The second part

During High North operations increasing unreliability of engine control systems.

- Full blackout 40m from berth in Iceland
- Random blackouts at sea

Despite sending technicians at every port call the fault was difficult to diagnose and often reappeared within a couple of days of being repaired.

Led to severe disruption of the scientific cruise in progress and eventual cancellation.

After extended port call in Tromso, Norway with rigorous sea trials the system declared operational

Vessel performed well during further High North work until 2 days prior to completion when one of the main propulsion engines (MPG2) suffered an over speed incident. The engine ran at twice maximum revolutions for 3 minutes and did not respond to automatic shut down.

Recovery and repair

ALLIANCE has much built in redundancy – 2 ME's and a supplementary Gas turbine acting as propulsion and emergency generator

After manufacturer attendance in Norway and in agreement with insurers the vessel returned (slowly) to La Spezia for full damage assessment and repair

Unfortunately MPG 2 was extensively damaged and needed a new crankshaft

Lead in time for a new crankshaft was set at 10 months so decision taken to remove engine from ship and reset to single engine operations to complete the scientific cruises for the year

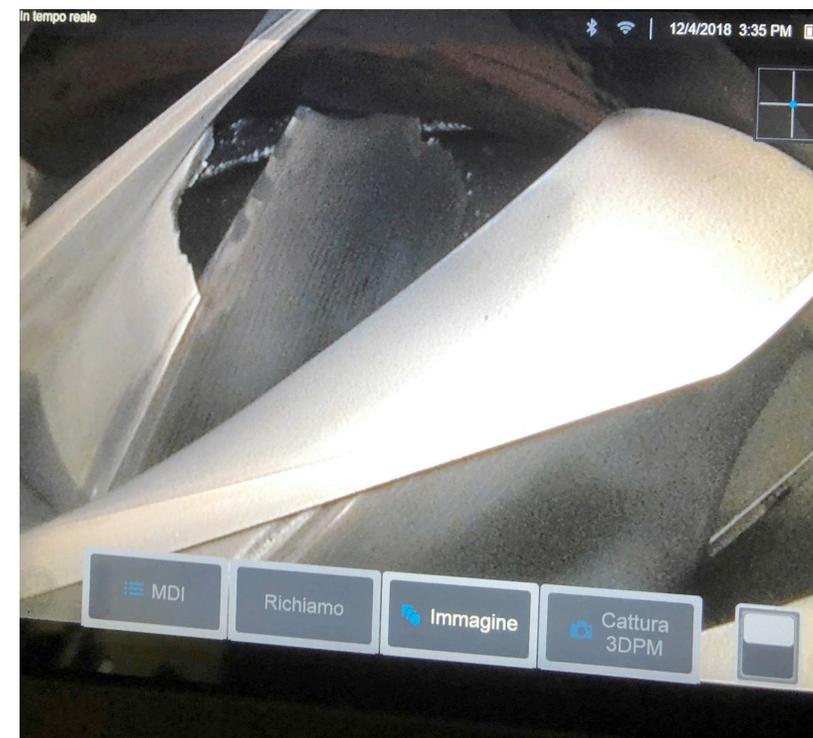
All removal work was completed on time and ALLIANCE commenced a multi – national cruise in a single engine configuration with the Gas turbine as back up

Unfortunately.....



Gas Turbine failure

On the penultimate day of the cruise the gas turbine failed and could not be restarted.
As this was the emergency generator the vessel became unseaworthy and class was suspended upon return to La Spezia
Gas turbine written off by a catastrophic failure of the turbine blades at high speed
We were now faced with 2 major repairs, 1.5M in insurance claims and ship unavailability for an extended period.



Repairs

Ship is 30 years old – equipment design is probably 40 years old

Very difficult to source spare parts

Eventually found a refurbished crankshaft with immediate delivery available

Gas Turbine written off and required a new short engine. Only one available in the world.

Major work package – impact to programme and planned cruises.

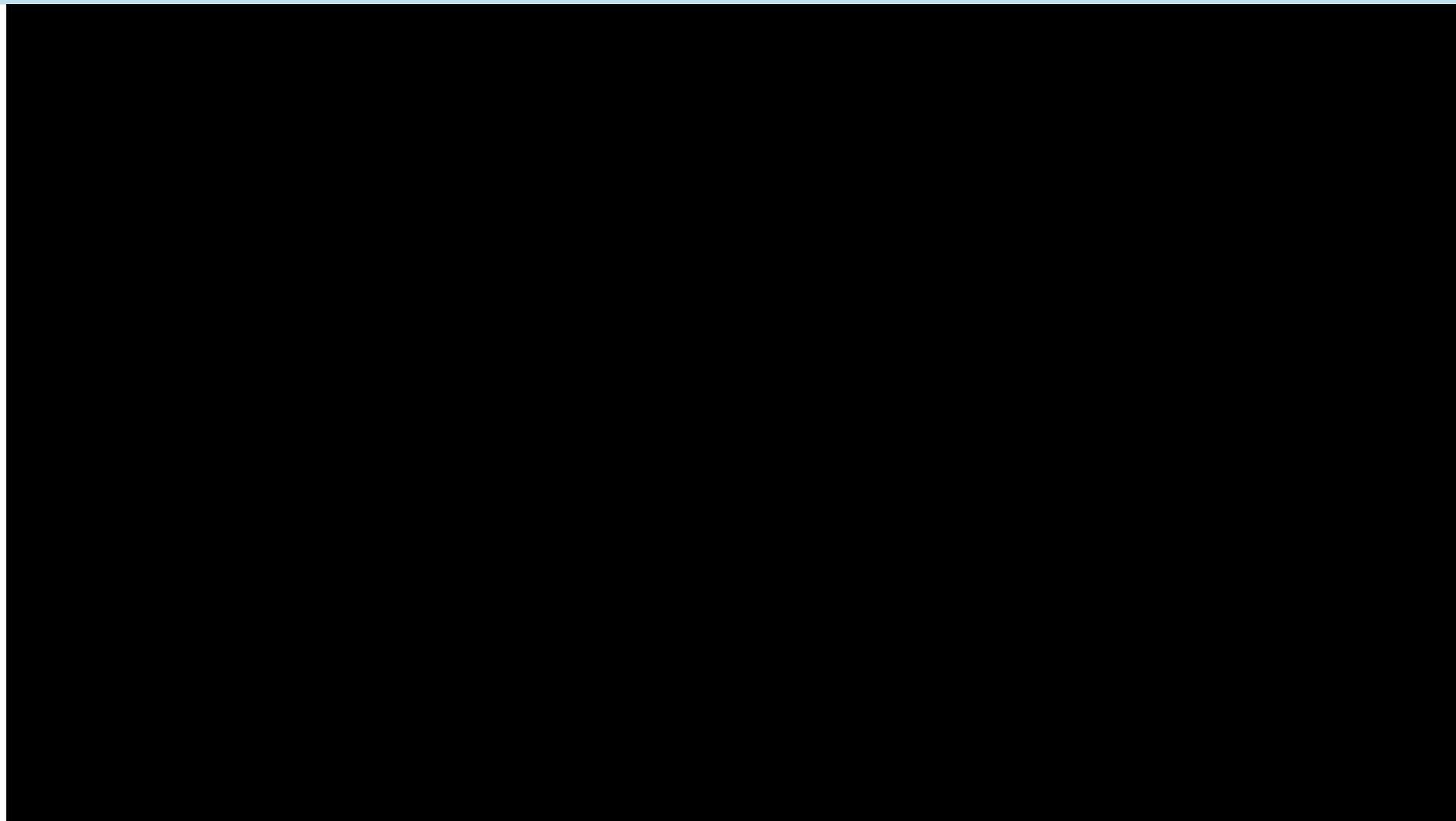
Now just completed repairs and undergoing sea trials.

Ready for operations soon.



CMRE is sixty this year!





Replacement of the NRV Alliance



150M euro

Farewell.....

17 Years in post

Some amazing experiences

Some very difficult experiences

Grateful for being part of this group and the larger world wide network of RV Operators.

