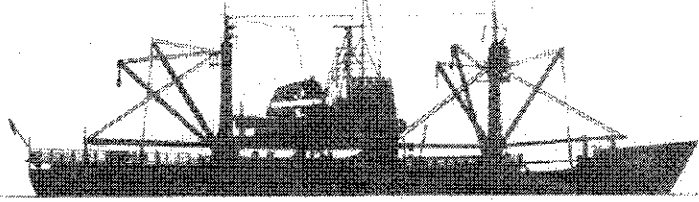


## Farewell "NELLA DAN" by Stephen Berry.



Many members were no doubt saddened to learn on Christmas Day the loss of the 2,187 grt Australian Antarctic supply vessel Nella Dan. Known to many expeditioners who travelled to the Antarctic aboard her as NELLA, she has resupplied Australia's Antarctic stations for 26-years.

The NELLA DAN was the last unit of a polar fleet operated by the Danish shipowner J. Lauritzen to be chartered by the Antarctic Division of the Dept of Science, and has made more trips to the Antarctic than any other ship, averaging 4 a year. Over the years the fleet has included the Kista Dan, Magga Dan, and Thalla Dan all names linked with many episodes of Australian Antarctic exploration.

Originally launched as Jetta Dan, she was renamed Nella Dan after Mrs Nel law, wife of the Antarctic Division's first Director, Dr Phillip Law, prior entering into service in October 1961. Built by Aalborg Vaerft in Denmark, the Nella Dan was designated a polar cargo motorship, specially ice-strengthened for Arctic and Antarctic service. The vessels most striking external characteristics were her icebreaker stem, the crows nest on the foremast and the helicopter deck aft. The crow's nest housed a complete set of navigation instruments, enabling the ship to be navigated from aloft. During an extensive refit in 1980 she was fitted with a 100sqm metre helipad, enabling air reconnaissance so essential for navigation in ice to be carried out. The NELLA was 75 metres long, 14.3 metres beam, 7.3 metres draught and could accommodate 42 passengers/expeditioners.

Over the past few years, the capabilities of the Nella Dan have been questioned. When built in 1961, she was hailed as the benchmark for ice navigation ships, but compared with the advanced technology of today's icebreakers, the NELLA, being small and relatively underpowered, became outclassed, and no amount of modification could hope to prevent her becoming caught in ice and having to be freed by powerful icebreakers of the other Antarctic treaty countries. These much publicised problems seem to have increased in recent years, sadly over shadowing her otherwise unblemished record. Early last year, the NELLA was freed by the Soviet polar research ship MICKHAIL SOMOV after becoming trapped in heavy pack ice near the Shackleton ice-shelf. For six days with 72 expeditioners on board. In the summer of 1985-86 she was trapped for 7 weeks off Amundsen Bay on the Antarctic Continent. On this occasion she was towed out by the Japanese icebreaker SHIRASE after a marathon 36 hour effort to free her from four-metre ice-pack.

Australia's tradition of ship board polar research was established in the days of Sir Douglas Mawson. On all Australian Antarctic Expeditions (AAE) and British Australia New Zealand Research Expeditions (BANZARE) voyages numerous oceanography studies were conducted. While marine research is still of considerable importance, it takes second place to station resupply effort in Australia's shipping programme. For almost a quarter of a century, the polar transport system has hinged on the annual charter of the Nella Dan, however, in 1984 the veteran Danish vessel was joined by the new 6,200 tonne West German ice strengthened cargo ship ICEBIRD. Since then, From October to March, the two ships have undertaken a total of eight tours of duty to the Antarctic, varying from four to eight weeks duration.

In the course of these voyages, they resupplied the three main stations, Mawson, Casey, Davis and deployed field parties to locations such as Heard Island, The Bunger Hills and Commonwealth Bay, and where possible, carry out ship board marine science research. Since 1980, when she was fitted with the latest marine biological research equipment and computers, the Nella dan has been the mainstay of the Division's maritime research programme. At that time she was specially modified to carry trawling and hydrographic winches on a stern trawling deck, and biological and electronic winches were fitted out with the latest in echo sounding and satellite navigation gear.

The Nella Dan's last tour of duty began in August last year when she returned to Hobart to resume her Antarctic supply duties following an extensive refit at Tyne Shiprepair, Newcastle-on-Tyne. Her tragic sinking off Macquarie Island on Christmas Eve, ended almost three weeks of frantic activity to save the 26-year old vessel after she went aground on the night of December 3 while unloading fuel for the AAD base on Macquarie Island, 830 nautical miles south of Tasmania. The AAD Director Mr Jim Bleasel, said her loss would be keenly felt by the division, as the Nella Dan was a very special ship and held a strong place in the hearts of all Australian who had visited the Antarctic.

An enquiry is presently being held into why the NELLA went aground during an operation she had carried out dozens of times before. There are no jetty's at the Buckles Beach base and landing on the island is still fraught with danger because of the surf and huge kelp masses that fringe the shore. In recent years, Australian Army amphibious vehicles (LARC'S) permanently based at Macquarie have been used to ferry personnel and supplies ashore from supply vessels, a far cry from rowing boats of the sealing days. In winter Australian 'Orion' surveillance aircraft make air-drops to deliver mail and fresh food. Initial reports indicate that while the NELLA was anchored about 800 metres off Buckles Beach a sudden storm blew up causing her anchor to drag in strong winds and high seas. Her engine was started but for reasons not yet clear she was unable to move out to sea and within 30 minutes she had been driven onto rocks about 400 metres from the beach. Later in the morning the waves drove her further onto the rocks to within 100 metres of the shore.

At the time of the accident, many of the ship's 83 passengers and crew were still ashore assisting with discharge operations, however, 30 personnel were still aboard, and braving appalling conditions were safely brought ashore by three Army LARC vehicles. Despite 80 km an hour winds and heavy surf, which was rising 30 to 40 metres those left on board clambered down rope ladders into the LARC's. The hazardous conditions were made even more difficult when fuel oil was forced from the tanks by incoming sea water, out through the ventilators and off the deck into the LARC's. Many of those rescued were later treated for the effects of fuel 'burns' in their eyes and bodies. Following the rescue, sleeping accommodation had to be found for the NELLA's 83 passengers and crew at the small Macquarie Island base which under normal conditions houses 32. People were crammed into every available space, even out in corridors, however, every one had dry clothing and there was plenty of food. Dawn on December 4 saw the NELLA Dan almost on the beach, listing slightly, with her hull badly holed in several places. Internal inspection later in the day revealed several compartments, including the engine room and drive shaft spaces flooded. In an attempt to prevent her moving off the rocks at high tide and sinking, the forward hold was flooded and her bow and stern securely roped to the shore.

Immediately following the stranding, the Antarctic Division Headquarters at Kingston, near Hobart, diverted Australia's second Antarctic supply vessel, the 6,200 tonne ICEBIRD, from Davis Station to Macquarie Island to pick up 77 of the stranded expeditioners (six crew remained at Macquarie to supervise the salvage operation). At the same time, salvage experts and representation from J. Lauritzen A/S., the NELLA's owners, flew to Melbourne to join the 1200 tonne orsv Lady Lorraine, which had been chartered from Australian Offshore Services for a possible salvage attempt (members will recall this was the vessel which towed the ORIANA to Japan).

The LADY LORRAINE was originally scheduled to leave Barry Beach, Gippsland, for Macquarie Island on December 7, but due to the late arrival of specialist salvage equipment she did not sail until the 10<sup>th</sup>

arriving off the island five days later (wrong as evidence will show). Soon after arrival on December 15, divers equipped with underwater video camera made a detailed inspection of NELLA's hull and found, as had been expected, that she was so extensively damaged that even if she could be refloated, the long haul to Hobart was out of the question.

It was known that the Lauritzen family were prepared to spend as much as \$3 million to save her, far more than her insured worth, but sentimentally, "Worth every penny". Sadly, after two days of soul searching, the Danes were eventually convinced that the NELLA would never make it back to Australia, and it was reluctantly decided that she would be stripped and scuttled some distance off the island. The decision stunned the personnel at Macquarie, as they hoped that even if the NELLA could not be brought back to Australia, she could at least be left on the beach at Buckles Bay as a poignant reminder to future visitors of the plucky little supply ship which had served that Australian Antarctic programme so well for a quarter of a century.

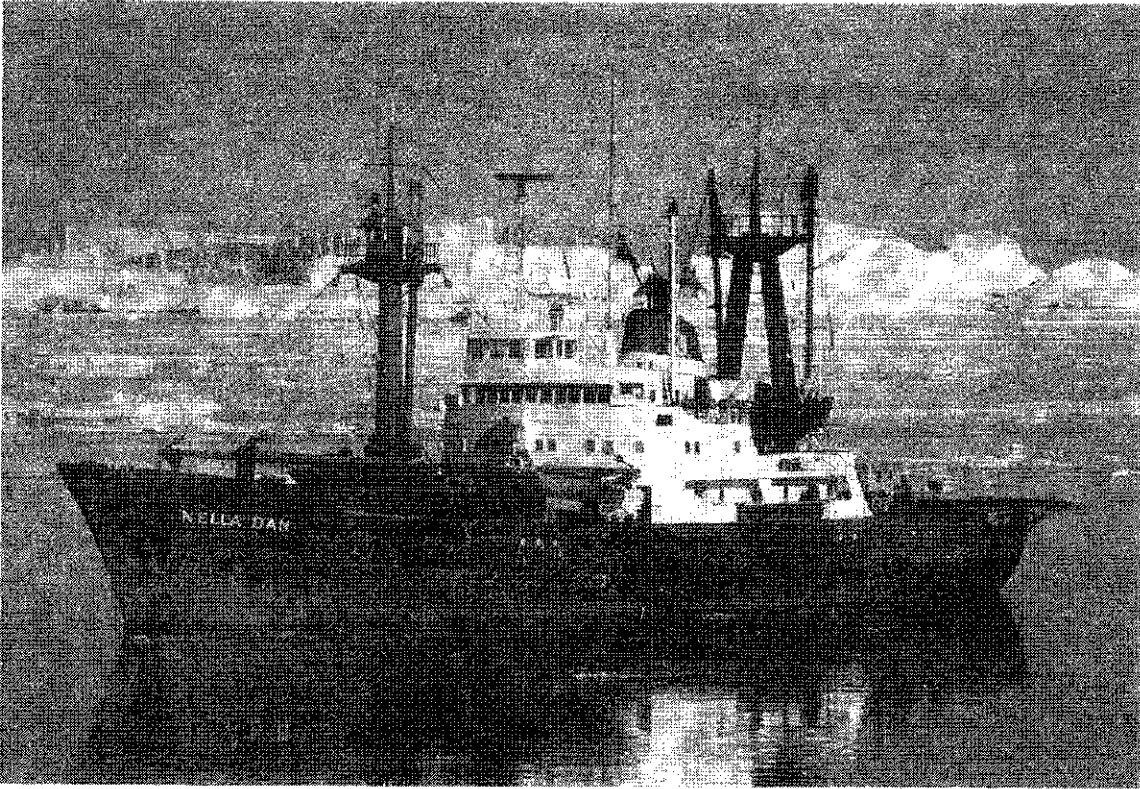
The operation to refloat the NELLA for her short final voyage began on December 20 but initial attempts to move her failed. Two more attempts were made the following day, when the Lady Lorraine managed to get the stranded ships forepart afloat and turned through 180° so that her bow was facing out to sea. Finally, on December 23<sup>rd</sup> she came free and was towed out into deep water beyond the surf, with pumps operating continuously to keep her afloat. The salvage team's intention was to strip the vessel of as much equipment as possible before finally scuttling her by either opening the sea cocks or laying explosive charges to blow out her hull.

The NELLA it seemed had other ideas. On the evening of December 23, as fittings were being removed, she suddenly listed with the weight of tonnes of water in her hull. The salvage party was ordered off and she was towed further offshore. Base personnel were so sure that she would sink over night, that the Australian Media reported the following morning that she had gone, however, later that day it was learnt that she was still afloat and on fire. The base at Macquarie later confirmed that the fire had started at about 0810 on the 24<sup>th</sup> when an air compressor operating a pump over heated and caught fire, spread quickly to the vessel's superstructure, causing flames to soar meters into the air. The crew of the LADY LORRAINE could only look on as the NELLA sank lower and lower, until, at 1742 Macquarie Island time on Christmas Eve, she disappeared stern first in 4570 metres of water, taking several hundred thousand dollars worth of valuable scientific equipment and ship's gear with her. At least two special Arctic-type life boats worth over \$1000.00 each were lost, as was satellite navigation and communication equipment, cranes, compressors, pumps, paintings, the ship's wheel and bell.

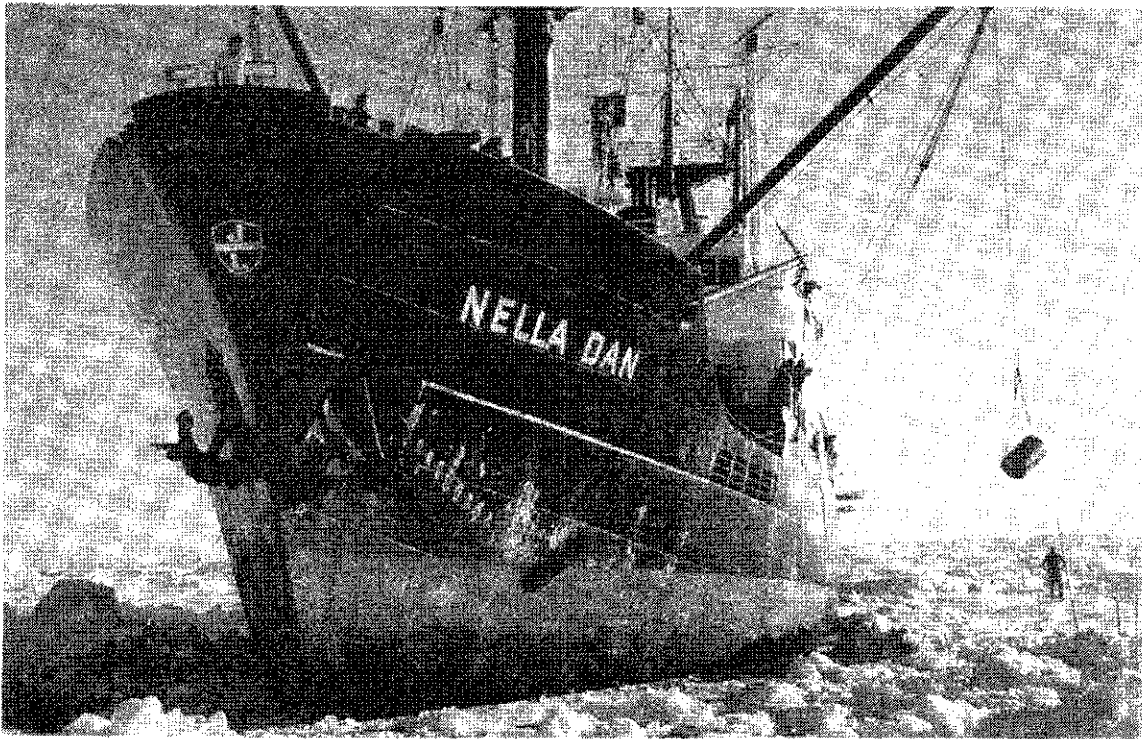
The loss of the NELLA DAN and her equipment has been called 'scandalous' and questions are likely to be raised in Federal parliament about the circumstances of her loss. The veteran vessel was scheduled to be retired at the end of this year, and by coincidence, the announcement that a replacement ship had been ordered, came at the same time as she foundered on Christmas Eve.

The Aust\$60 million contractor build the new Antarctic supply ship has been signed with Carrington Slipways at Newcastle by P&O Australia and its partner in the project, Polar Schiffarts Consulting gmbH of West Germany. To be delivered in September 1989, the new building has been designated

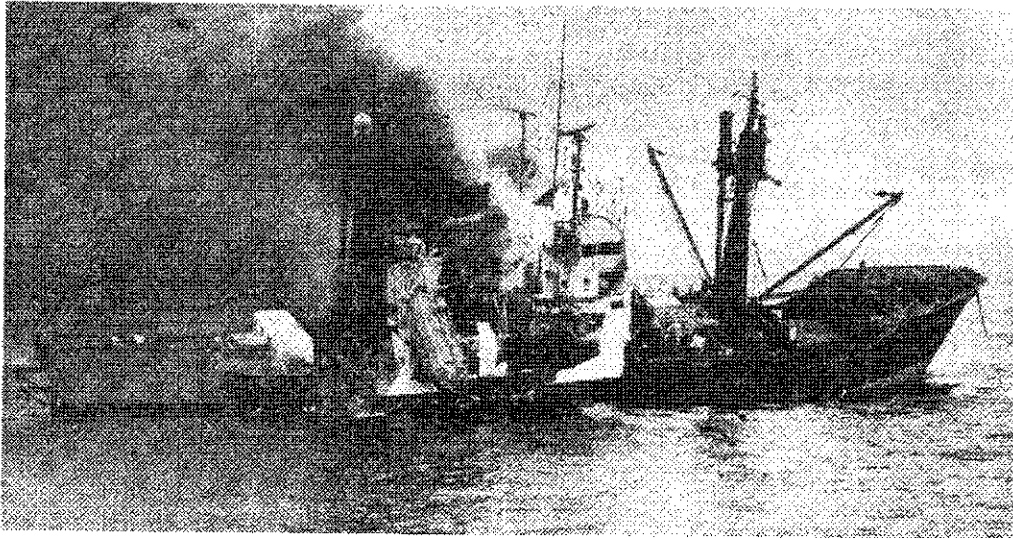
By Finland's Wartsila Marine Industries as an Antarctic Base supply vessel. Designated Arctic Class 3 icebreaker, the 3,290 tonnes deadweight vessel will have a length of 92.6 metres, a beam of 20.3 metres, a range of 45,000 nautical miles and an operating speed of 16 knots. For ice reconnaissance and transportation of supplies, a helicopter of the super puma type will be carried. A full account of this new vessel will be published later in the year when more details become available.



The NELLA DAN seen in better days during one of her many Antarctic voyages.  
Photo courtesy of Jonathan Chester.



The NELLA DAN seen trapped in ice off Amundsen Bay during the 1985/6 season.



The NELLA DAN lists heavily a short time before sinking on Christmas Eve 1987.  
Photo courtesy of Australian Offshore Services.

The NELLA DAN sinks stern first in 4,570 metres of water of Macquarie Island.  
Photo courtesy of Australian Offshore Services.

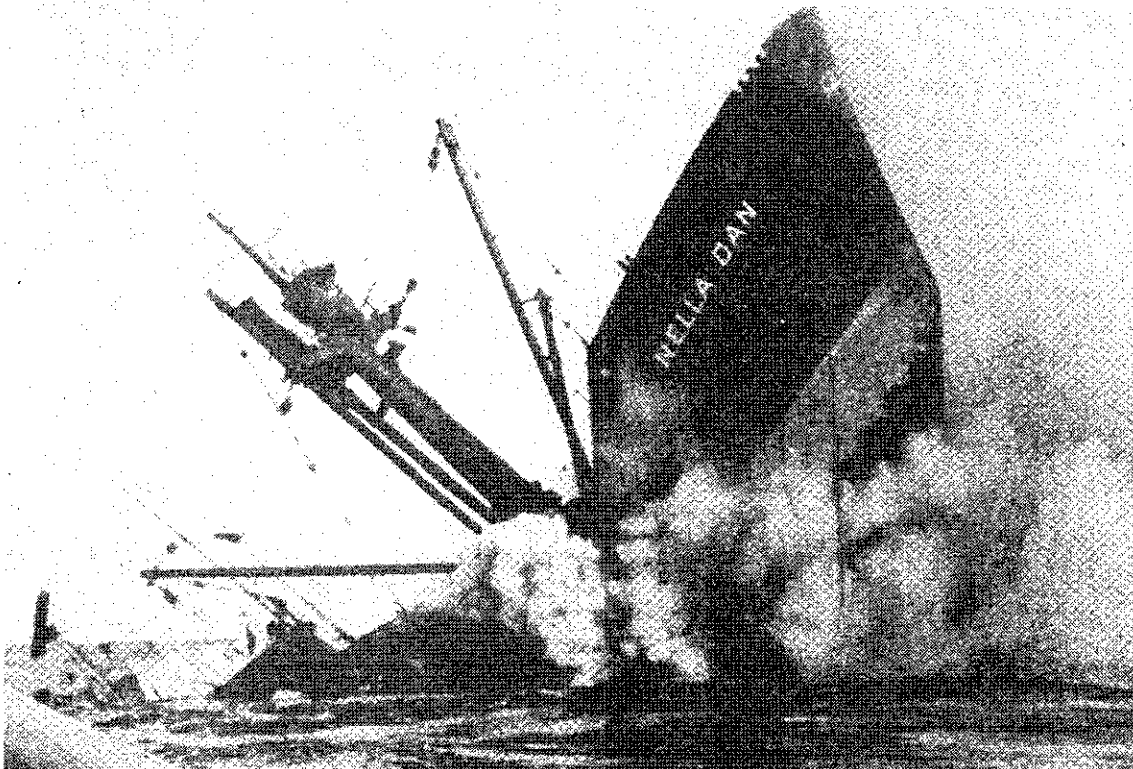


Photo courtesy of Mark Norman