

Report on the probable location of the schooner

Klaraborg (1850's - 1982)



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BACKGROUND

The aim of this short report is to gather all the available information in an attempt to determine the most reliable position fix for the resting site of the *Klaraborg*. The intention is then to relocate the site and conduct an inspection to research the impact of sinking and post depositional effects on the 132 year old wooden vessel after being submerged for 14 years. This study will assist with comparative research on vessels which have been submerged for greater periods of time but in similar underwater environments.

VESSEL SPECIFICATIONS¹

Built in the 1850's

Length overall: 120 ft

Length on deck: 80 ft

Beam: 22.5 ft

Draft: 8.5 ft

Masts: 85 ft

Built of Baltic Pine on Oak frames

Masts of Douglas Fir.

Aux Engine: GM 3.71

Swedish sailing ship *Klaraborg* was built in Vänern in the 1850's and was believed to be the oldest ship in the world still plying its trade.

The *Klaraborg* served as a trading vessel in the Baltic sea for over 100 years, then in 1965 she was converted to a pleasure yacht with the rigging an exact replica of the original.

HISTORICAL BACKGROUND TO THE *KLARABORG*

The *Klaraborg* was a two masted schooner built in the 1850's on a lake side in Sweden. She was a former Baltic trader, 22m in length, built from Baltic pine and was more than 130 years old at the time of sinking.

The skipper, Mr Ove Linner, a Swede, bought *Klaraborg* in 1975 and spent 2 years refitting her in preparation for a life of sailing the world. More than 80% of the vessels original fittings were retained in the refit and she was claimed to be the oldest serviceable vessel.

The *Klaraborg* was open for public inspection to assist with financing maintenance which cost around \$30,000 per year. She failed to pass survey for passenger charter and spent 8 months in Western Australia unsuccessfully searching for long term berthing facilities suitable for public display. The *Klaraborg* moored in Success Harbour before her departure. With 30 tonnes of granite paving stones as ballast, she set a course bound for Singapore on 13 July 1992, with a crew of ten, three cats and a parrot.²

EVENTS SURROUNDING THE LOSS OF THE *KLARABORG*

The vessel began taking water from the beginning of the voyage but was in no immediate danger until the pumps failed the following morning. The skipper, Mr Ove Linner, radioed may-day calls about 9.30 am while approximately 50 km off the coast. The State ship MV *Koolinda* stood by and two fishing boats remained on call along with three military helicopters.³ The *Black Swan* had set out from Two Rocks to assist. The seas were moderate to rough on a moderate swell with northerly winds blowing at force 5/6.⁴ About 1 o'clock in the afternoon a fire broke out in the galley while the crew were busy trying to keep the vessel afloat. She had to be abandoned and all on board were rescued by MV *Koolinda*. The *Klaraborg* sank in deep water within half an hour of catching fire, approximately 55 km west of Yanchee. Of the ships gear, only the wheel and bell were removed and saved.⁵



Rescue vessel M.V. Koolinda making way toward the Klaraborg

The following is an excerpt from a report from Capt. Ron Stevens of the rescue vessel M.V. *Koolinda* of Fremantle to the Marine Manager, State Shipping Service relating to the position of the vessel during the rescue and at the time of sinking. Refer to Appendix 1 for a copy of this report.

Report on the rescue of the *Klaraborg* crew... 14/7/1982⁶

0813 14 July Distress message received requesting assistance.
Position given as 290° 25 miles from Yanchep. Later stated as a dead reckoned. position.

0955 *Klaraborg* **not** sighted at this position but at 216°, 16.5 miles from her reported position.
Helicopter unsuccessfully tried to put a portable pump aboard *Klaraborg*. A helicopter crew member was lowered to *Koolinda* with a pump. Ship's life raft was launched with the pump aboard in an attempt to tow and drift the raft to *Klaraborg*. Three unsuccessful attempts were made to fire rocket lines in order to attach a line to the raft for *Klaraborg* to haul in. The life raft broke adrift and several attempts to retrieve it by *Koolinda* were unsuccessful, as was an attempt by the helicopter to attach a line and an attempt to blow the raft to the ketch by hovering above it.

1308 15 July *Klaraborg* crew abandoned ship.

1322 The *Koolinda* took on all 10 survivors, personal effects and the ship's wheel and bell.

1323 The *Klaraborg* foundered and sank.

1402 *Koolinda* proceeded to Fremantle with 10 survivors.
Estimated position of the *Klaraborg* : Lat 31°33.5'S Long. 114°53'E



M.V. *Koolinda* launching the liferaft in an attempt to get a pump to the *Klaraborg*.

MOST LIKELY POSITION OF SINKING

The Chart Aus 334 (Wedge Island to Cape Naturaliste) held by the Maritime Museum has a pencilled note which indicates a position drawn in by "Raina Robinson, 18/12/86, from Captain". The reliability of this position is questionable. The Captain of the *Koolinda* used a taped recording of the rescue from the bridge to write his report and this pencilled in position is not consistent with that stated in his report. The "from Captain" could refer to the Captain of another vessel. The *Klaraborg* could not have given an accurate position at this time since they were using distance and bearing and were busy trying to save the vessel at the time. The fishing vessels standing by indicate that the position was vague and they were using bearing and distance to determine position rather than the more reliable latitude and longitude used today with GPS positioning.⁷

If the bearing and distance initially given by *Klaraborg* and the subsequent corrections stated by *Koolinda* are plotted, the resulting position is between 3 and 6 nm to the south east of the position indicated by the *Koolinda* report, depending on the interpretation of where Yanchep is.

Position given in the <i>Koolinda</i> "Deck Log"	Lat 31°34'S	Long. 114°53'E
Position given in the master of the <i>Koolinda's</i> incident report	Lat 31°33.5'S	Long. 114°53'E
Note on MA file gives position at 1300 (30mins before sinking)	Lat 31°34'S	Long. 114°57'E

DEPTHS IN THE AREA

Bathometric survey chart (Sheet SH 50 - 13, Part 14 Yanchep edition 1) illustrates depths with contours, however these contours stop at 300m which is approximately 3.8nm from the likely sinking position of the *Klaraborg*. To extrapolate from this chart however, one could estimate a depth greater than 300m.

The British Admiralty Chart of the area provides less depth information in the location of interest and one can only infer a depth of around 500m. Chart AUS 754 (include illustration) indicates the bottom type 5 nm north north east of the position to be mud and confirms the site to be on the 500m contour line which runs north south. From this chart a seabed gradient of 1:31 was calculated from the 500m to the 300m contour line (3.4 nm). This indicates a moderately sloping seabed however this cannot be assumed to be consistent along the length of the contour line. The Dept. of Fisheries Deep Water Trawling Report 1982 (trawl number 47, 1979) confirms the depth contours on Chart Aus 754 (3.5 nm inshore of the position of interest), and indicates a soft seabed in a depth of 300m.

The "Perth Offshore Resource Map" First edition 1991 provides detailed contour information extending beyond the continental shelf. This map confirms our position to be close to the 500m contour line. It is interesting to note a bottom type described as "ooze" was found inside this contour line, however further north of our position of interest.

Local fisherman (pers. com. John Clarke) has fished 4 miles S/E of the site where he says the depth contours are complicated ie. the contour swings and drops off suddenly. Fishermen indicate that the site we are interested in is almost certainly around 500m deep and that currents up to 1 knot have been experienced.

The Royal Australian Navy Hydrographic Service have advised that: "The seabed in that part of the world is steeply sloping, thus dependent on the positional uncertainty the depth could be anywhere from 500 - 2000 metres."

SEARCH AREA

Consideration should be given to the strength and direction of the Leuwen current as well as the winds to provide information on the potential drift of the vessel during the rescue operation and subsequent sinking, prior to the vessel reaching the seabed. Since the winds were from the north and blowing force 5/6 during the sinking and the Leuwen current (confirmed by fishermen to be strong around the time of the sinking) runs north to south this may be a significant contributor when deciding the shape of the search area.

In order to determine the effect of the current direction on horizontal displacement during sinking the following estimation has been made. Allowing for a 1 knot current and an average descent rate of 10 knots, a horizontal displacement of 50 m might be anticipated. Assuming that terminal velocity would not have been reached by the time the vessel reached the seabed at 500m. Even doubling the current strength is only likely to move the centre of the search by approximately 100m.

The grid spacing and the length of each run will be determined by the vessel size and speed and the remote technique used. The search should initially concentrate on a 1 mile radius around the position given and be expanded as resources permit.

Recommendations

- More weight should be given to the position given in the *Koolinda* incident report **Lat 31°33.5'S Long. 114°53'E** since the last position given by the *Klaraborg* was a dead reckoned position and found to be inaccurate. The master of the *Koolinds's* incident report is a considered position with one more decimal point of accuracy. This is therefore an appropriate starting point to centre a search around. This location is approximately 36 nautical miles offshore from the Two Rocks Marina on a bearing of 265°.
- The authors suggest a simple survey of the area to more accurately determine the depth range in the area and to gain a profile and composition of the seabed. This will require a vessel to travel to the area and follow a search pattern around the given position using GPS and echo sounder to gather information. Seabed samples would be taken to give an idea of the seabed composition (sand, mud, sludge etc.) The power and range of the echo sounder will need consideration to operate effectively at these extensive depths. The presence of thermoclines or suspended matter in the water will reduce the signal and render the image unreliable for interpretation. As will an indistinct sea and seabed interface which would be the case with a seabed composed of sludge. An echo sounder which has a paper trace would be useful to record position fixing information directly onto the printed record.
- Request assistance from the RAN with the search.
- Request assistance from survey companies.

Responses Received to date (27 November 1996)

The Royal Australian Navy Hydrographic Service have responded to our request for assistance indicating that they have higher priority survey tasks precluding their ships from assisting in this search. Also, the side scan sonars currently in use by the RAN are configured for shallow water (less than 200m deep) and so are not suitable for this search.

We are waiting on a response from Fugro who are requesting that a client who has commissioned a survey in our area of interest, be approached to allow our survey to be conducted at the same time.

SOURCES:

WAMM, Maritime Archaeology Department: File 64/82

Newspaper articles

Fremantle Gazette, Wednesday, July 21, 1982. Page 2 (Account by a steward on *Koolinda* .)

West Australian, Thursday, July 15, 1982. Page 12

West Australian, Thursday, July 15, 1982. Cover Page

Unsuccessful search for information:

- Battye Library: Social Sciences Ships Index
- Dept. Marine and Harbours Library (ph. 2392399).
- Stateships (ph. 4300200). Report of the rescue (included above) the only information held.
- Federal Dept. of Transport. (ph. 06 2747324) No report on this incident.
- Fremantle Port Authority Library (4304911)
- Receiver of wrecks. Department of Transport / Port Authority

Black and white photographs held at:

West Australian (ph. 4823075) For images. WV 8165,67,68,69 WT 9085,86,87 WT3847

Appendix 1

Report on the rescue of the *Klaraborg* crew... 14/7/1982

Appendix 2

Notes on Telephone Interview

Captain Ron Stephens of the *Koolinda* interviewed by John Clarke in November 1995

Captain Stephens

Address: 34 Osnaburg Rd, York Western Australia 6302

Phone: (096) 411890

Captain Stephens:

- Now retired
- Master of State Ship *Koolinda* 14 July 1982
- This trip was his first in command
- Very sensitive regarding *Klaraborg* (due to unfair criticism over the rescue).
- Was unable to add any navigation details from his memory (no GPS in those days).
- *Klaraborg* not where they were first sent but steamed out to find it.
- Bill Tomlinson was the mate - from his recollection
- Tony Knapp was the third mate. He taped the incident (presumably this was used later to put together the incident report.
- The Captain was friendly but sounded frail, the conversation was short.

Conclusions:

- The position given in the incident report was probably a considered position and hence a good starting point.
- Despite reports that a galley fire caused the crew to abandon ship, the ship was not destroyed by fire before it sank (see press photo's)
- The wreck may lie in 500 - 550m of water.

Footnotes

¹ S/Y "Klaraborg" brochure held in the McKenna collection, W.A. Maritime Museum.

² Information source: Channel 9 News. Perth.

³ The fishing vessel *Black Swan* was proceeding towards the *Klaraborg* but her ETA was 1430. Radio officer on *Koolinda* was in constant contact with the *Black Swan*. When the *Koolinda* proceeded to Fremantle at 1402, the *Black Swan* was requested to recover the life raft. However she later reported that the weather was too bad to enable her to retrieve the raft. *Black Swan* skipper was John O'Byrne.

The *Koolinda* was also in VHF contact with *Eugene McDermott*, which was proceeding to the *Klaraborg*. She returned toward Fremantle to continue seismic surveys when informed that no further assistance was required.

⁴ Deck Log MV *Koolinda*. Voyage No. 9s Wednesday 14/7/82

⁵ The West Australian. Perth, Thursday July 15, 1982, Cover Page.

⁶ State Archives of WA, report dated 20 July 1982.

⁷ Personal communication with John Clarke who had discussions with Ian McFarlane, Tim Dyke.

⁸ Department of Fisheries and Wildlife Western Australia, Report 51, Taiyo Maru 71 "Demersal Trawling Cruise in Western Australian Coastal Waters South of 21°S, July-September, 1979" by D.I. Heald and M. H. Walker 1982.

⁹ Derived from calculations used by Dr. Robert D. Ballard in "The Discovery of the Titanic" Page 257. The terminal velocity used for the *Titanic* calculation was 25 - 30 knots per hour.

