

ICE BREAKER SHIPS

WEDNESDAY 31ST OCTOBER 2018 FROM 1400 UNTIL 1700

ENGINEERS AUSTRALIA MEETING ROOM LEVEL 11 108 KING WILLIAM STREET, ADELAIDE, SOUTH AUSTRALIA

Over the years submarines have graduated from semi-submersibles requiring frequent air intake to submarines that can operate underwater without air intake over many days with various forms of so-called air independent propulsion systems [AIP]. However, none of these conventionally powered vessels is completely independent of external fuel and oxidant sources to be periodically replenished.



Only nuclear power provides true independence for a submarine to operate over extended periods without any interface with above water source of fuel or air.

For the ongoing development of surface ship propulsion, there will always be a free source of oxidant from air but there will still need to be periodic replenishment of fuel even if this is hydrogen. For ships that operate over frequent, short journeys such as ferries there is the option of electric propulsion with rapid recharging of batteries at each terminus. For merchant shipping operating over longer distances, the energy source must be carried onboard in some form of liquid or gaseous fuel.

For an ice breaker, remote from fuel sources for long periods, it has been accepted that nuclear power makes sense.

THIS SEMINAR IS FOR INTERACTIVE DISCUSSION TO ELICIT THE MANY FACTORS TO BE CONSIDERED IN ADVOCACY IN AUSTRALIA FOR NUCLEAR PROPULSION OF SUBMARINES AND SHIPS SUCH AS ICE BREAKERS. PARTICIPANTS PLEASE BRING SLIDES OR REFERENCE MATERIALS TO SHARE

Cost: \$20 per person to cover room hire and ancillary services (incl GST) Registration and payment: DISplay Pty Ltd ABN: 30 074 858 129 **BSB: 032-197 A/c: 126585** with email to confirm to <u>cjskinner@acslink.net.au</u>

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