## A Working Sub Fleet And Crew Tomorrow - Submarine Protection for less than half the dollars presently proposed

- a simple analysis for the general public -

By Dr Tom Lewis

The Australian public has been sucker-punched by the green movement into not understanding nuclear submarines. If we are buying new subs – and we should – the nuclear off the shelf option is the only way to go. In every way they would be our best buy. And we can easily solve the crewing problem with the same purchase. Here are eight reasons why the government should go nuclear.

**Cost.** The US Navy's Virginia-class submarines are in production now at around \$2.8b off the shelf each. Twelve of these would be a lot cheaper than 12 new diesel-electric variants built in Australia. A lot of extra hospitals and federal highways could be built with the spare \$10-20b we would save. And a nuclear boat comes with its fuel built in – and therefore would not need the millions of litres a diesel boat would use in its lifetime.

**Proven design.** If we bought a nuclear boat off the rack, we would be buying something already in service. We would know it works. The Virginia-class has provided 12 years of faultless service since rolling out of their yards, and are expected to remain in service until 2070. The odds are against us building another "one-off" design here and making it work. Submarines are the most complicated piece of military technology around. We'd never built any before the Collins – and we'd never had problems with the off the shelf Oberons preceding them. Thinking we can build something as well as countries which have been subbuilding for over 100 years is a delusion. Buying new boats from General Dynamics Electric Boat would get us a working boat with a proven track record and a warranty.

**Endurance.** The nuclear sub never needs refueling, and can operate to vast distances from port. It doesn't have to return to a harbour where its arrival is predicted, and where it can be hit by missiles or aircraft. It doesn't have to meet a tanker and position itself to take on fuel, being extremely vulnerable while it does so.

A diesel-electric is limited by needing diesel, and in a war situation there's unlikely to be a nearby service station if you're operating up close to the enemy. And you have to resurface to refuel. Nuclears can stay at sea for years if necessary, limited only by food for the crew. They can scrub the air, make fresh water, and keep everyone comfortable on board – without stopping. If we went nuclear, the boats would need fuel in about 30 years, which could be done in America, but the submarine type would need a refit by then anyway. The rest of the vessel could be maintained in Australia, providing jobs.

**Undetectability.** If you have subs, your potential enemy has to guard against them. Upon leaving port, the nuclear boat submerges – and never comes back up. Staying down means avoiding detection. And as every hour goes by, the circle of where that sub could be widens, and the enemy knows it could strike anywhere in that circle. Diesel subs have to come to periscope depth at necessitated intervals to take in air to run their diesels, and recharge their batteries. When they're at war, this is dangerous.

**Speed.** Nuclear subs are capable of immense speed underwater – faster than they are on the surface. They are much faster than their prey. This means they can chase enemy vessels, or make high speed runs to position themselves favourably in their path. Diesels can't do this.

**Crew.** It's been hard to attract enough submariners to serve in the Royal Australian Navy. If we bought boats off the Americans, we could buy some crews too. We could attract a few hundred US Navy submariners – and their families – to a new life in Australia. Many will jump at the chance, and we'd get some ready-trained qualified personnel to mix in with our own people.

**Safety.** Nuclear subs just have nuclear engines. Many people hazily think they have nuclear weapons too – not so. The nuclear engine is a sealed unit. As the Eveready battery of the depths it just keeps producing electricity. Lots of it. This makes the boat go. America, France, Britain, China, Russia, India – with Pakistan following soon – all have nuclear subs. Their engines have been accident-free for decades.

**Deterrence.** Subs are a great deterrent to any enemy thinking of coming here by sea – and there is no other way to mount a credible invasion. Once at sea, the nuclear submarine can go deep, and stay quiet. The enemy will have to expensively equip and train with anti-submarine measures – not easily acquired. They would forever have to guard against an unseen enemy who could be anywhere. Having subs is a bit like having a guard dog. It doesn't have to bite anyone, just its presence is justification enough for the food and kennel. We've got to retain the idea of having submarines – and we should have the most capable.

We don't need to spend millions on a study to analyse which possible problem to buy into. We just need our chequebook and a flight to the States. For half of what we're thinking of spending on new diesel boats, we can solve our sub problems tomorrow – and have the most potent strikeforce in the Southern Hemisphere.

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