

NZ Dolphin Underwater & Adventure Club

Newsletter June 2023

Club Meeting 7:00pm Wednesday 14th June 2023
What's on : Pot luck dinner - Peter's 80th Birthday

www.dolphinunderwater.co.nz



Club's Mail Address
14 Gails Place
Okura
RD3 Albany



Club Contacts Inside
Website As Above

COMMITTEE MEMBERS: 2023/2024

President/Entertainment	Allan Dixon	021 994 593	allanandjilldixon@xtra.co.nz
Vice-President	Chris Nipper	021 991 732	akidna27@gmail.com
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	Peter Howard	0225 194 046	pete.howard@xtra.co.nz
Web Site	Matt Gouge	0210 777 282	mattgouge@gmail.com

Life Members

Barry Barnes, Margaret Howard, Peter Howard, Brian Horton, Reg Lawson, Roberto Tonei, Dave Quinlan, Denis Adams, Trish Mahon-Adams.

Honorary Members

Graham Thumah, Tony Enderby, Jenny Enderby, Eileen Slark.

Cover Page Photo:– Dusky Sound touchdown - James Fluker

14th June – Wed.- 7:00pm Club meeting - Pot luck dinner (Peter's birthday)

17th July – 30th July 2023 – P&O Cruise – 13 days – Leaving from Auckland and back to Auckland visiting Fiji, Dravanui Island, Norfolk Island and four or five other islands through to Vava'u, Tonga. If anyone is interested in joining others on these cruise trips, **please contact Margaret, 0274 839839**. There is also another P&O Cruise that Club Members are on in November. This time 9 days around NZ leaving Ak and back to Ak. If you don't like travelling on your own. Give me a call and I can give you further details.

12th Aug – 19th Aug 2023 – Diving Fiji - Volivoli Beach Resort | Dive into the heart of Fiji - Jeni and Brent Hassell are hosting this trip. **please contact Margaret, 0274 839839**

Dive trips, NZ & Overseas – Check out the dive shop's web sites, there is plenty available, but you do need to contact the shops in person to confirm costs & booking availabilities.

Performance Dive NZ - Ph. 489 7782. or <https://www.performancediver.co.nz/Dive+Trips++Events>

Trips to Islands off Tauranga, Poor Knights Is, Alderman Is, Taupo Lake.

Global Dive - Ph. 920 5200. or <https://www.globaldive.net/page/trips> . Trips to the Poor Knights Is, Bay of Islands, Leigh Coast, Goat Is Marine Reserve, & O/seas – Fiji, Palau, Maldives, Mt. Gambier (Aus), etc.

Aucklandscubadive – Ph. 478 2814 or <https://www.aucklandscubadive.co.nz/dive-trips>

Trips to the Poor Knights Is, Tiritiri Matangi Is, HMNZS Canterbury Wreck, Great Barrier Is, HMNZS Waikato, Lake Taupo Drift Dive, Alderman Is, Hen & Chicken Is.

Other events & suggestions please contact a committee member or organise it yourself & get the club to make up your numbers. i.e. – Dives, trips NZ & O'Seas, Events, Outings, Tramps, Dinners, Movies, etc.

Our Club's Trip Rules (Organiser's rules apply for overseas trips)

- A. Bookings allowed on all trips. *Two trips & club membership is a must.*
- B. **A deposit or full payment to be made at time of booking.**
- C. Full payment **MUST** be paid at least two weeks before departure date.
- D. Trip Organiser to handle trip & bookings, & Treasurer to handle finances. Cancellations due to weather will be refunded in full, or transferred to another trip.

- E. Members cancelling for any reason will lose full monies unless they find a replacement for their position on the trip.
- F. The trips Organiser will determine if there are enough people to run a trip & if not will notify cancellation two weeks prior to departure. **Non - financial members will be charged an extra \$10 on trips.**

NB: All Memberships Now Due: Single – \$40 Family- \$50.00

For the club to continue we need paid up members see Margaret or Trish next meeting or do it online.

Club's Internet bank account is 06 0122 0074227 00 & don't forget to put in your name

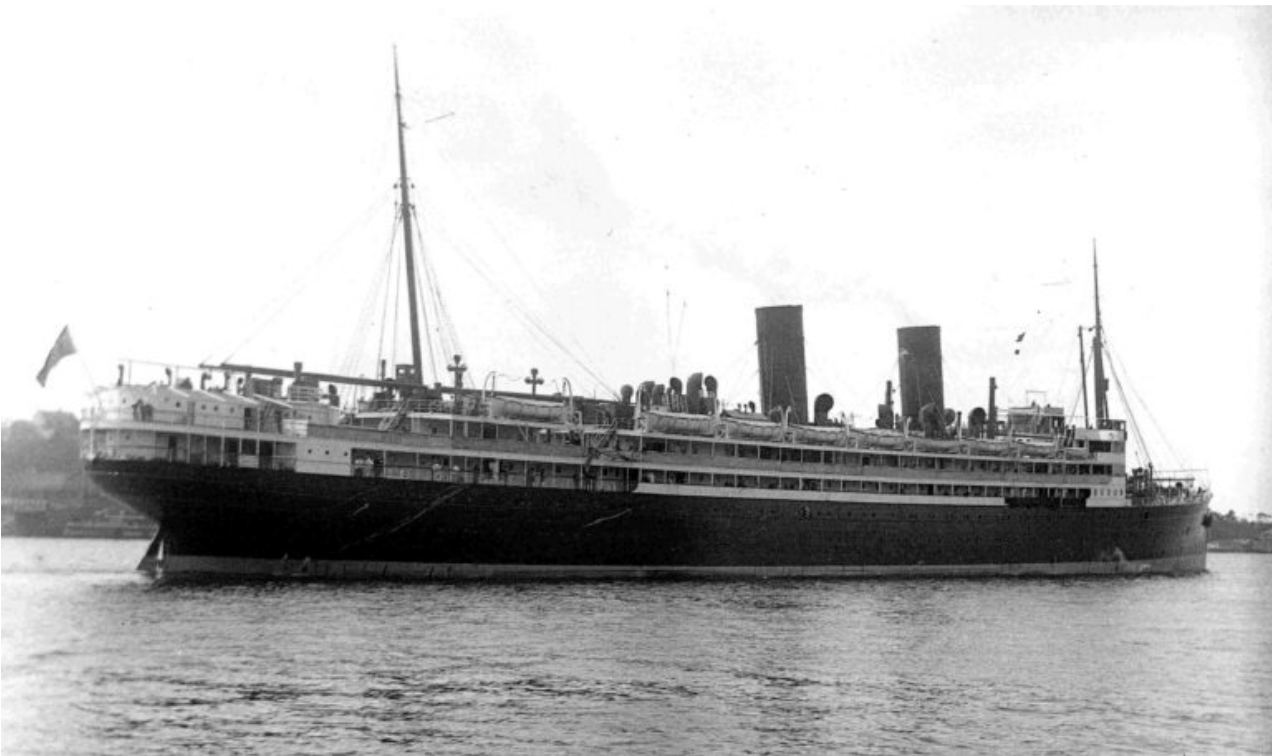
Club Membership also includes Affiliation to the New Zealand Underwater Association

Beyond halfway: Diver died on 100m-deep dream wreck

[Divernet - Scuba News](#)

Editors note: This happened in our NZ waters

- [Steve Weinman](#)
- on April 12, 2023



RMS Niagara in 1924 (ANMM)

The dive-plan of two New Zealand divers had been simple: a 50m line-descent on air – but one of them ended up dead at twice that depth, on the gold wreck he had dreamed of diving since childhood, a New Zealand inquest has heard.

Woodrow ‘Woody’ Pattinson, 36, died on 15 March, 2020, while diving at the RMS *Niagara* wreck-site. The trans-Pacific liner sank off Northland in June 1940 after hitting a German mine, taking with it 590 gold ingots. Most of these were later recovered from the 100m-deep wreck.

Pattinson’s buddy Daniel Smyth, whose boat they were using, had been a close friend since childhood and they often dived together, according to a report on the inquest by the *NZ Herald*.

Pattinson, an environmental scientist from Auckland, had gained his PADI Open Water Diver certificate just over a year before the fatal incident and had gone on to gain five further certifications, although he was not qualified to dive beyond 40m.

Smyth told the inquest that his friend liked to “push the limits a little bit” and had been known to deviate from dive-plans. An instructor said that he had not regarded him as a risk-taker during his training.

Pattinson had attended a family birthday party the night before the dive but was said not to have drunk heavily. He had however planned the dive with Smyth “over a glass of wine” before leaving Marsden Marina at about 1.30pm, and Smyth said that both men had drunk up to three beers on the boat.

Post mortem analysis would later show that Pattinson’s alcohol content had been about twice the drink-driving limit when the pair dived at around 4pm.

‘Halfway to Niagara’

Pattinson had suggested a dive to 50m, so that the pair could say they had gone “halfway to the *Niagara*“. He had already messaged his girlfriend, also a diver, to say that he might not return that night because he was living out his dream of diving the wreck. Smyth reported that his friend had been talking emotionally about death and reincarnation.

Pattinson was using a rented 12-litre air-tank and, because he had previously travelled for the party, had borrowed a regulator, fins and other equipment from Smyth. He had no dive-computer.



Looking towards the wreck-site off the Whangerei coast (Glenn H)

The divers descended on the anchor-line with what were described as “safety stops along the way”. At 50m Pattinson had returned Smyth’s signal with an OK sign, but the pair were then distracted and disorientated by a large school of kingfish.

When the fish had gone Smyth saw his buddy below him on the line and followed to avoid being separated, but stopped at 64m, realising that he was getting beyond air-diving limits. By this time Pattinson was already 5-10m deeper than him.

Smyth ascended, and raised the alarm when his buddy failed to resurface. The emergency services responded but in deteriorating conditions police divers were unable to search the wreck-site for the next 10 days. On 25 March an ROV located Pattinson’s body lying on the [*Niagara*](#) wreck, his fins missing.

Kingfish disorientation

A pathologist reported the cause of death as drowning, and a police diver said that Pattinson’s equipment had been correctly configured.

Returning a verdict of accidental death, coroner Alexander Ho considered it possible that the diver, inexperienced at diving to such depth, had been initially disorientated by the kingfish and could have been affected by nitrogen narcosis, oxygen toxicity or panic, exacerbated by the alcohol in his system.

The fact that he had neither dumped his weights nor inflated his BC to assist in an ascent suggested that his judgment had been impaired, and his lack of training for technical-diving depths had made it difficult for him to stop or control his descent.

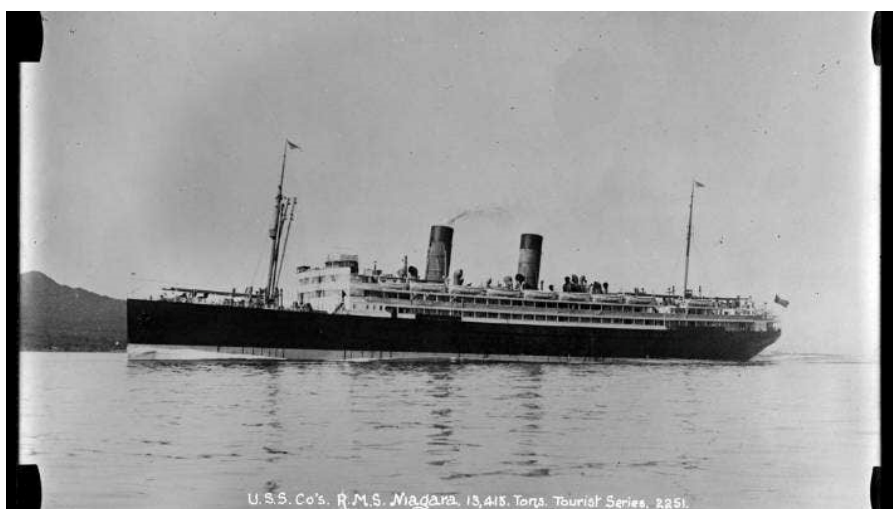
Apart from following a dive-plan within qualification levels, the coroner recommended that divers should refrain from diving within 8-10 hours of drinking alcohol, be ready to ditch weights in an emergency and have a non-diver remain on the boat as surface cover.

A Northland shipwreck has been labelled an environmental time bomb – so why is the Government refusing to act?

Mike White 05:00, Jun 04 2023

The RMS Niagara was launched in 1912, and was originally nicknamed the Titanic of the Pacific, before being dubbed the Queen of the Pacific, after the Titanic sank.

For 30 years, officials and politicians have been warned about an oil-laden shipwreck on the brink of causing the country's worst environmental disaster. For years, they've ignored the risk. As Germany offers help, and pressure from iwi and conservation groups mounts, Mike White investigates the scary and confounding story of the RMS Niagara, and why the authorities are refusing to do anything about it.



In April, 20 people gathered in an Auckland office, some shaking hands with new acquaintances, some nodding at old friends, some beaming in by Zoom.

Some were lured by the scent of sunken treasure, some by the prospect of an extreme technical challenge, all had ecological disaster on their minds.

They'd come together to discuss a shipwreck lying off Northland's east coast, its hull corroding millimetre by millimetre, year by year; its hulk swept by storms and

snagged by trawler nets; five gold ingots from its cargo still somewhere within it.

For 83 years, the steel encasing the [RMS Niagara's](#) fuel tanks had been gnawed at to the point their collapse was imminent.

With that came the risk of its oil spilling and coating areas including the Poor Knights and Goat Island marine reserves; Little Barrier Island, and Hen and Chicken Islands nature reserves; and even Great Barrier and Waiheke Islands – a risk so high that the Hauraki Gulf Forum's chief executive, Alex Rogers, decided someone had to do something.

So he organised the meeting, where concerns could coalesce, with the aim of sparking action on the looming catastrophe of the Niagara.

Because nobody else seemed to give a shit.

The passenger liner Niagara sunk by German mines off Northland's east coast in 1940. Inside, it was luxurious, and once held speed records for crossing the Tasman Sea.



In June 1940, a German raider, the Orion, snuck into New Zealand waters, and laid more than 200 mines across the Hauraki Gulf's entrance in an attempt to blockade Auckland.

Four days later, the Niagara, a passenger ship en route to Vancouver, struck one of the mines and sank quickly, about 30km offshore, 40km southeast of Whāngārei, inside today's Hauraki Gulf Marine Park.

All 349 passengers and crew survived, but the cargo, including 590 gold bars en route from the British government to pay America for munitions, disappeared in 120m of water.

Nearly all the gold was eventually recovered. However, the less alluring but more sinister cargo, fuel, remained ignored over the following decades.

In the 1990s, fears began to be raised about oil leaking from the Niagara and causing slicks in one of the country's most spectacular marine areas.

But Maritime New Zealand, which has responsibility for the wreck, rejected concerns.

Seemingly ignoring firsthand reports of leaks, it argued the oil had virtually solidified in the cold temperatures below 100m, or had dissipated.

In 2005, while claiming incorrectly that the wreck had almost disintegrated, a Maritime NZ spokesperson put the threat to the environment as "very low-key, if at all".

But at the same time, Maritime NZ admitted it hadn't examined the wreck, and actually had no idea how much oil remained on board.



SeaROV Technologies Ltd/Supplied

A technical diver, using a mixed gas closed circuit rebreather, inspecting the bow staircase entry on the Niagara.

And here's the crucial conundrum which has bizarrely and unfathomably dogged the Niagara issue for decades: Nobody has any idea how much oil remains – because nobody has ever checked.

The Niagara had capacity for over 4300 tonnes of heavy fuel oil, and likely had close to that when it left Auckland, some of which spilt when it sank, covering local beaches.

More was discharged when salvage crews recovering the gold used explosives to access the strongroom.

And numerous reports show oil has continued to leak from the wreck over the years.

As Pete Mesley, who has dived the Niagara six times, says, "All we know is the Niagara was destined for Canada, and she wasn't half-full, she wasn't three-quarters full, she was f.....g full.

"So whether that shit has gone into the water in the last 80 years, or whether there's still a massive time bomb ticking, waiting to go, we don't know."

By 2018, with concerns about the Niagara not going away, Maritime NZ commissioned reports on the risk of an oil spill.

Again, no physical work was done to ascertain what oil remained on board, with a UK salvage company, London Offshore Consultants, simply using estimates from [New Zealand shipwreck expert Keith Gordon](#) that there could be 1600 tonnes.

In September 2018, a Maritime NZ report to associate transport minister Julie Anne Genter and conservation minister Eugenie Sage recommended a comprehensive underwater survey and environmental risk analysis be carried out

Genter and Sage twice put in Budget bids to fund this work.

Both were turned down by senior ministers.

So nothing happened, leaving nobody any wiser about the wreck's condition, or the threat of an oil spill.

It was as if everyone was saying, we don't know how big the problem is, we aren't willing to find out how big the problem is, but we hope like hell it's not as big a problem as some people think it is.

Abigail Dougherty/Stuff



Associate transport minister Kiritapu Allan has responsibility for the Niagara shipwreck. She was previously also conservation minister.

And that's essentially the situation in 2023, except current associate transport minister Kiritapu Allan is showing less interest in dealing with the Niagara than her predecessors.

While previous ministers wanted answers to the most basic questions – how much oil is on board, and what is the risk of it spilling – Allan doesn't even support a preliminary survey of the wreck to find these answers, and hasn't made a new budget bid.

“Given the uncertainty over what oil may remain on the wreck, and the significant risk of disturbing the wreck and causing a spill in trying to determine this, the Government has no current plans to attempt any oil removal from the wreck,” Allan says.

When asked what grounds there were for claiming there was “significant risk” of disturbance and causing an oil spill merely by conducting an initial survey, Allan said Maritime NZ had received independent advice from salvors.

But *Stuff* has confirmed the last time Maritime NZ received advice from salvors about the Niagara was the London Offshore Consultants (LOC) report in July 2018.

That was the same report that at that time led to Maritime NZ *recommending* a survey be carried out, and government ministers attempting to get Budget money for the work.

While some of the 2018 LOC report has been redacted by the government, nothing publicly released mentions a “significant risk” of causing an oil spill, due to conducting a survey.

In fact, the LOC report called for further investigation, “in order to make a thorough assessment of the general condition and integrity of the wreck”.

Moreover, a separate Maritime NZ briefing paper to ministers in March 2018 stated, “non-intrusive survey activity poses very little risk of disturbing the wreck,” and noted various techniques that might allow this to happen.

Beyond this, it simply said any intrusive activity would need to be very carefully considered due to the risks of oil spillage.

It's unclear what has changed between 2018 when Maritime NZ supported a survey of the Niagara, based on salvors' advice, and now, when its advice to Allan is that a survey is too risky.

When *Stuff* initially contacted Maritime NZ about the Niagara, its media advisor responded by laughing, saying the issue had been well traversed in the past.

Maritime NZ has failed to provide material requested under the Official Information Act in the required 20 working days, and has directed all questions to Minister Allan.

Allan says expert advice “indicates that wrecks deteriorate over time, and that any invasive survey work and/or oil recovery operations pose a risk of causing a release of oil.”

However, she fails to explain why, if the wreck is obviously so fragile that drilling small holes in it could cause an oil spill, it won't simply completely collapse at any time, due to corrosion, currents, earthquakes or storms, and spill any remaining oil in a totally uncontrolled manner.

To those who see the Niagara as a disaster waiting to happen, the refusal to act by Allan and Maritime NZ leaves them incredulous.

But the real reason is intimated in another response from Allan, when asked why she hadn't sought funding for a survey of the Niagara.

“The previous budget (sic) were unsuccessful because of funding pressures at that time.

“These pressures still exist, and the Government is focused on bread and butter issues, and supporting Kiwis during a cost of living crisis.”



Supplied

Leading New Zealand shipwreck expert Keith Gordon

But such reasoning staggers those who are simply seeking to avert a potential environmental catastrophe.

For comparison, 333 tonnes of oil washed ashore [when the Rena hit a reef near Tauranga in 2011](#). It cost around \$47 million just for the cleanup.

A 2018 report estimated the direct cost of an oil spill from the Niagara could be as high as \$108 million, depending on how much oil was on board.

In addition, the long-term cost to wildlife, tourism, the local economy, and our environmental reputation would be incalculable.

Maritime NZ's unsuccessful funding bids for an initial survey of the Niagara were for \$4.1 - \$6.6 million in 2019, and just \$850,000 - \$1.6 million in 2020. Experts agree the work is entirely feasible, and could be done for under \$5 million.

Critics say this would at least clarify whether there was a risk of an oil spill, and they point to numerous examples around the world where leaking WWII-era wrecks, approaching “peak-leak” due to corrosion, have been surveyed and had oil removed.

Keith Gordon, one of New Zealand's foremost shipwreck experts, was part of the oil recovery from the similarly-sized President Coolidge wreck in Vanuatu.

He has also explored the Niagara with remote operated vehicles, and written a book about the wreck, and says New Zealand has the equipment and expertise needed to ascertain what oil remains on board.

Keith Gordon with the bronze bell from the Niagara, which was sunk by a German mine in 1940 off the Northland coast.

Bureaucrats and politicians had no understanding of shipwrecks, Gordon says, citing Allan's bizarre claim the Niagara "has remained undisturbed on the Hauraki Gulf seafloor since being sunk" – ignoring major structural damage from two salvage operations that used explosives to access the ship's gold; storms and earthquakes; and fishing trawlers.

"What they've seen in the movies is about as far as their knowledge goes.

"The Government doesn't want to 'disturb the wreck' – how are they going to control all the other factors disturbing the wreck? Are they going to control time, nature, and the ocean?"

Gordon stresses it isn't a case of if, but when, the Niagara collapses, releasing its oil into a major shipping lane, precious marine areas, and Northland's coastline.

Even Maritime NZ in its 2018 briefing paper was clear about the environmental risk: "As a heavy fuel oil, the oil will be challenging to clean up, resistant to dispersant, and slow to break down.

"A large-scale release of oil would spread widely in the area, and potentially severely impact marine wildlife, including important seabird species."

It suggested some protection measures, like booms, could be ineffective and "some of the shorelines would be challenging to clear up without causing significant damage."

Of major concern is the effect on the critically endangered fairy tern, which has a population of around 40.

Three of its four breeding areas would be threatened by an oil spill.



Lawrence Smith/Stuff

Nicola MacDonald wears three crucial hats when it comes to dealing with the Niagara, and hopes to bring together a strong coalition to force the government to deal with the wreck.

Nicola MacDonald, co-chair of the Hauraki Gulf Forum, and chief executive of Ngāti Manuhiri, one of the mana whenua of the area, says the blinkers needed to be ripped off the government and its agencies, so they could start seeing the Niagara problem for what it is.

"I believe we're right on the brink of what could be our worst ever environmental disaster."

MacDonald, who also chairs Auckland's Conservation Board, says she can't understand why there's no government action on the Niagara.

"But when it comes to the ocean, all successive governments have been appalling. Because if you can't see it – out of sight, out of mind."

Nyree Manuel, the Northland Conservation Board's chairperson, says authorities are playing Russian roulette with the disintegrating Niagara.

"We're dodging bullets, mate."



She wants an explanation from new conservation minister and Northland MP Willow-Jean Prime why the government isn't acting, and has already begun discussions with her.

“Which is more than the kōrero we did not get with our last minister, Kiritapu (Allan).”



Shelley Ogle/Department of Conservation

The critically endangered fairy tern, which would be threatened if the Niagara caused an oil spill.

Prime said the issue was being handled by Maritime NZ, but repeated the government's stance that doing anything to the wreck risked oil being released.

Manuel, who has also held discussions with iwi groups, says her message to Allan and Prime was simple: If we don't pay for a survey now, the cost of a cleanup when the Niagara inevitably breaks up will be far, far worse.

“A \$5 million outlay compared to a \$50 million outlay? Doesn't take a genius to figure that one out.

“Just do something. Have a plan.”

[More from Mike White • Senior writer \[mike.white@stuff.co.nz\]\(mailto:mike.white@stuff.co.nz\)](mailto:mike.white@stuff.co.nz)

Equally bemused by Allan's argument that it's preferable to do nothing than try to gauge the scale of the risk, is heritage archaeology worker [Tim Moon of Waiheke Island](#), who helped organise April's Hauraki Gulf Forum meeting.

“I'm actually a bit stumped, because I'm a person of commonsense.

“The commonsense is, investigate this thoroughly, determine the risk, then act appropriately. But commonsense doesn't play in politics.”

Moon, who describes the Hauraki Gulf as his beloved backyard, can't understand why the government will only act when there's an oil spill.

“We have a 100-year-old vessel that's been sitting on the bottom of the ocean for 80-odd years.

“It's a tin can. It's rusting away. And it will haemorrhage.

“It's going to take very, very little to burst this thing open - and then we have an ecological disaster.”

A mine similar to ones laid by the German cruiser Orion, which sank the Niagara in June 1940. The Orion was disguised as a merchant ship, and the sinking of the Niagara was the first act of war in New Zealand.

Like everyone, Moon stresses it's the government's responsibility to deal with the Niagara, and says it has resources, like the Navy, that could help.

But remarkably, the government is turning its back on a crucial potential source of help – Germany.



Stuff asked the German Embassy if its government would contribute to, or pay for, an initial survey of the Niagara, and the removal of oil if needed.

Deputy head of mission Michael Feiner responded that, “Germany will consider providing support within its possibilities once the New Zealand Government approaches us with a request to that effect.”

However, Kiri Allan says the government has not approached Germany, “and has no plans to do so at this stage”.

Green Party conservation spokesperson, and former conservation minister, Eugenie Sage is nonplussed at Allan’s stance.

“If the German government is open to a request, then the government should be making that approach.”

KAI SCHWOERER/Stuff



Former conservation minister Eugenie Sage failed in two bids for funding to survey how much oil was on the Niagara, and what risk it posed to the environment.

Pete Mesley, who knows the Niagara’s situation better than nearly anyone, having dived on it over 20 years, is equally astounded New Zealand’s government is ignoring Germany’s offer of help.

“What the hell, man? What do we need to do?”

Mesley, who describes [the Niagara as “the Mt Everest of New Zealand shipwreck diving”](#), has seen oil leaking from the hulk firsthand, with a putrid film floating on the surface above it.

“Oh my god, the smell of bunker oil is unmistakable – it’s not pleasant stuff.”

When disasters happened, decision makers always panicked and said, ‘Oh, if only we knew beforehand,’ says Mesley. But the risks of the Niagara had been signalled for decades.

“Some people say, well, let’s just wait and see. If there is an ecological disaster, we’ll just bag the dead birds, and clean up the shit off the beaches, and it’ll dissipate, and after a few years, no one will care.

“But the fact is, it’s a lot worse than that. And I just think we have to focus on getting the time bomb sorted out, or at the very least, surveyed properly.

“And then we can say, ‘Is this a major threat or isn’t it?’

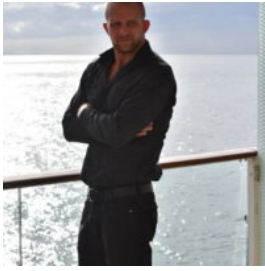
“We just don’t know the answers yet. So wouldn’t it be prudent to actually get some answers first?”

Courage

Man cannot discover new oceans until he has courage to lose sight of the shore.

Courage is what it takes to stand up and speak; courage is also what it takes to sit down and listen.

Your Guide to Surface Intervals: A Crucial Element of Scuba Diving



[Andrew Keaveny](#)

3 May, 2023

Have you ever wondered why scuba divers must wait on the surface after a dive before re-entering the water? What exactly is a surface interval? Discover the importance of this procedure, and why it is a crucial step for scuba divers.

For most people, scuba diving is an unknown world filled with physics, physiology, and [oceanography](#). You're dealing with pressure gradients, surface intervals, and nitrogen build-up, all while trying to enjoy the scenic depths of the big blue ocean. At first, this can be intimidating, and when asked, "What is a surface interval in scuba diving?", non-divers and divers in training may draw a blank.

However, don't let scuba terminology deter you from exploring our waterways. The [PADI Open Water Diver](#) course lays out everything you need to know to safely explore the depths in a way that anyone can understand. In this article, we will explore what a surface interval actually is and its role in scuba diving.

What is a Surface Interval?

In scuba diving, a *surface interval* is the period a diver spends on the surface between dives. During a surface interval, the excess nitrogen that dissolved into the body (due to pressure) during the previous dive begins to dissolve back out. The longer the surface interval is, the more nitrogen levels return to normal. How long a surface interval *must* be depends on the depth and duration of the previous dive and what the dive plan is for the next dive. So, it can range from a relatively short break to several hours.



[In this article](#), we discussed partial pressure and pressure gradients and how your body absorbs the gases associated with scuba diving. As a diver, you can't rush to the surface at the end of a dive, because these gases need time to dissolve out of the tissues without forming bubbles. If an ascent is too fast, bubbles can form in the body. This results in DCS (decompression sickness).

Besides staying within the limits explained in the [Open Water Diver certification course](#) and ascending slowly, divers make a three-minute safety stop at 15 feet/5 meters to further allow time for the aforementioned gases to dissolve out of their body tissues. Once on the surface, divers still have residual nitrogen in their bodies for several hours. This is where our surface interval comes into play.

What Happens to Your Body During a Surface Interval?

As mentioned above, a surface interval is the time a diver spends on the surface after a dive allowing the body to release any residual nitrogen. **In other words, a surface interval is the time in which nitrogen levels return to normal after a dive. The deeper and longer you're underwater during the previous dive, the longer this process takes.**

You do not need to wait for nitrogen levels to return to normal to dive again, though. Instead, you have to account for how much nitrogen is still in your tissues. If the surface interval is short, to stay within accepted limits, the allowable time for the next dive will be shorter than if you have a longer surface interval, all else being the same.

How to Plan for a Surface Interval

Planning your allowable dive times and surface intervals is pretty straightforward. Dive computers do the calculations for you. During a surface interval, after a dive the computer will tell you how long you can stay at the planned depth for the next dive. If you want to dive longer, you stay on the surface longer until the computer shows the time you want. This can also be done with dive tables and apps, though for most recreational diving that's rarely needed.

Because you're going to be on the surface between dives, you'll want to be prepared for anything Mother Nature throws at you. For example, if it's going to be rainy, be sure to bring a dry bag to keep things dry between dives. Or, if you're worried about getting cold, bring warm clothing to the dive site or on the boat and be sure to stay as dry as possible. If it's going to be sunny, don't forget to pack reef-safe sunscreen and refreshing beverages.

What Should You Do on a Surface Interval?

A surface interval is the best time to hydrate, have snacks, and converse with the other divers joining your trip. This period provides an opportunity for divers to observe their surroundings, plan their next dive, and communicate with their dive buddy or team. Take some time to talk to the dive crew, too. Avoid alcohol and heavy exercise [immediately after a dive](#), because these are thought to predispose divers to DCS.

If you've never been scuba diving, some of the terms in this article may confuse you. But, don't let it intimidate you. This is a perfect opportunity to get your [Open Water Diver Certification](#) to learn the basics of scuba diving and start to [#LiveUnfiltered](#).

Be sure to always do your safety stops and never rush your surface intervals.

Happy bubbles and safe diving!



The MAF regulations vary in particular when it comes to your catch size/limits & locations.

Especially in the Hauraki Gulf area, things have changed. Please familiarise yourself with them.



Practice being safe & staying safe for you & your buddies & we will see you all at the club meeting

