

# Cancer in Sailors in US Navy Nuclear-Powered Ships

By Chris Busby

CounterPunch, March 6, 2020

Here's a good one. In 2011, at the time of the tsunami and the Fukushima triple reactor meltdowns and explosions, the nuclear-powered aircraft carrier *USS Ronald Reagan* was about 60 miles off the coast of Japan. The ship was directed to lend assistance in what was called Operation Tomodachi (friendship)—to provide assistance. What no one on board was told was that the reactors had exploded and a plume of highly radioactive material was blowing east from the site into the path of the vessel. Of course, when it was doused, all the radiation monitors on the carrier started screaming, and returning planes and helicopters that had flown support sorties were contaminated.

In 2014, I was engaged by some California attorneys to advise them in a law suit brought against Japan's Tokyo Electric Power Co. and the US against reactor builder General Electric on behalf of sailors who served on the carrier. A significant number of the *Ronald Reagan* crew was reporting a wide range of weird illnesses including cancers, all of which they attributed to their service-related radiation exposure. Between 2014 and now, the court arguments were all about procedure, and about whether the case should be heard in Japan or in the vessel's home port of San Diego, California. There was a lot of publicity[1]. Recently, a California judge decided that the case had to be heard in Japan. This is grossly unjust since Japanese and US law differs, and the sailors cannot afford to go to Japan or to hire Japanese lawyers, but not the focus of this report.



## Resistance to US Weapons in Germany Spreads to Courtrooms

Protest and nonviolent “go-in” actions at Büchel Air Base in Germany have increased over the last four years, and 36 resisters have recently been charged with civil offenses. Court hearings are held first in Cochem District Court, about 10 miles from the air base. Two appeals have been made from Cochem to the Regional Court in Koblenz, and one appeal has been made from Koblenz to the Constitutional Court in Karlsruhe, Germany's highest court.

Following the 18-person go-in on July 15, 2018, “penalty orders” have been issued to at least 12 people. Four defendants were convicted of property damage and trespass on Jan. 22, 2020, and three more on May 11, 2020. Four of the seven have appealed, while three others go on trial June 10, 2020. I too have been charged for joining this large go-in, but no trial date has been set.

For two April 30, 2019 go-in actions, 15 resisters are to be tried—five on June 3, and ten on June 24, 2020. In other cases, organizer Beate Körsgen has a June 8, 2020 trial for allegedly violating the Public Assembly Law. Another goes on trial Sept. 2, 2020 charged with illegally photographing the air base fence. Marion Küpker, coordinator of annual “20 Weeks for 20 Bombs,” goes on trial Sept. 7, 2020, charged with resisting arrest. This eye witness saw

In 2014, following all the publicity about the cancers, a number of US Senators and others asked pertinent questions, and the Navy had to do something to answer the accusations that Fukushima radiation was killing those who sailed on Operation Tomodachi. It panicked. A big report was prepared by the US Defense Threat Reduction Agency (DTRA), entitled: “Final Report to the Congressional Defense Committees in Response to the Joint Explanatory Statement Accompanying the Department of Defense Appropriations Act,” 2014, page 90, “Radiation Exposure”[2]. Never use one word when ten will do.

This report rambled on about how low the Fukushima doses were, how everyone acted wonderfully, and how all the radioactivity was rapidly cleaned up. The “dose reconstruction” showed that no one got more than a fraction of the “natural background” dose, and so forth. (The methodology for the dose reconstruction has since disappeared from the link given in the report.) But to prove that there were no excess cancers on the *Ronald Reagan*, the Navy took a step too far. It reported the results of its own epidemiological study which it carried out on the *Ronald Reagan* sailors. This study compared the illness yield (including cancers) of the 4,843 *Ronald Reagan* sailors with a matched control group of 65,269 sailors on US Navy nuclear-powered ships that were not anywhere near Fukushima. The period of analysis was from 2011 to 2013, about 3 years. This showed that there were more cancers in the control group over that period. The idea clearly was to knock on the head any suggestion that the radiation from Fukushima was the cause of the excess cancers and other illnesses that formed the basis of the court case. And this it apparently did.

The Navy's move was to compare the matched “unexposed” control group with the *Ronald Reagan* group. There were 30% more cancers in the control group after adjusting for age. But what I did was compare the nuclear navy-wide control group with the national population, using data on cancer rates by age group from the SEER database[3]. The results show an astonishing 9.2-fold excess of cancer incidence in the sailors on nuclear-powered vessels. There were 121 cancers predicted on the basis of

the national rates, and 1,119 reported by the DTRA study. For sailors aboard the *Reagan*, the excess cancer rate was about 6-fold, with 46 reported and 7.76 expected. Now this result is astonishing. I wrote my study for *Cancer Investigation*, a good scientific peer-reviewed journal, and it was published Feb. 25, 2020. You can find it on academia.edu[4].

What I discuss in the paper to explain the study's results is that radiation protection legislation is wildly incorrect when dealing with *internal* contamination from radionuclides. The legal limits in the US and the West are based on the comparison of cancers in those exposed to acute external gamma ray doses to the Japanese A-Bomb survivors and cannot apply to internal exposures to substances which target DNA (uranium, strontium-90) or which provide huge local doses of ionization to some living cells but nothing at all to others (uranium particles, reactor discharge particles).

This study's results are a big deal. Nine times the expected rates? What are they going to do? It's the Navy's own data that it stupidly released, and it shows that their own sailors on their vaunted nuclear-powered Navy ships are dying from cancer. You can bet the telephone lines are hot, and that we won't see any coverage of this in the papers or on the tele. But the sailors themselves and the veterans? What will they think when they find this online but not reported?

Studies of nuclear workers have been the new battleground for this chess game since it became apparent in the last few years that the Japanese A-Bomb studies were dishonestly manipulated and ignored internal exposures to fallout and rainout [5]. We have seen a number of attempts to kill the argument about low-dose radiation and health using nuclear worker studies. There was the *Lancet* publication in 2015 [6]. There was the disgraceful Royal Society publication last year. The late Alexei Yablokov and I wrote to the *Lancet* [7] asking to point out in the journal that the *Lancet's* articles reassuring everyone that the science of radiation risk was secure were written by nuclear industry scientists and were unreliable. The *Lancet* refused. I wrote to the Royal Society. It also refused to publish anything.

Nuclear workers work outside at a nuclear site where the discharges get dispersed. Nuclear Navy sailors work in a tin can that also houses the reactors. Nuclear worker studies are based on data that is provided by the nuclear industry to show there are no cancers. The Navy's DTRA study had to show higher overall cancer rates in order to swamp the numbers of cancers among sailors on board the *Ronald Reagan*. But to do this, and to extend the chess analogy, the Navy brought out its Queen—its cancer statistics—and it was taken.

Thankfully, this story shows that regarding internal radiation exposure, there are two “last frontiers”: the scientific peer-review literature, and the courts. I am also helping represent the widow of a UK nuclear Navy submariner who was a reactor-servicing technician and who died from cancer. Let's see what the Scottish courts makes of my paper. Read it yourself and have a laugh. If you are a Navy sailor on a nuclear-powered ship, be very frightened. Write to your Senator. Kick up a fuss.

—Professor Chris Busby is the chief scientific advisor of the Low Level Radiation Campaign.

### Notes

- [1] <https://www.courthousenews.com/us-sailors-face-grim-diagnoses-after-fukushima-mission/>
- [2] Radiation Exposure Report — Health.mil [www.health.mil](http://www.health.mil) > Reference-Center > Reports > 2014/06/19 > Radiation Exposure Report
- [3] <https://seer.cancer.gov/data/>
- [4] *Cancer Investigation*, Vol. 38, Issue 3; <https://www.tandfonline.com/doi/abs/10.1080/07357907.2020.1731526?journalCode=icnv20>
- [5] <https://www.genetics.org/content/204/4/1627>
- [6] <https://royalsocietypublishing.org/doi/10.1098/rspb.2017.1070>
- [7] <https://independentwho.org/en/our-demands-to-who/>

a policeman grab Marion who was on her phone, drag her from her car while she yelled in pain, force her into the grass face-down, and then kneel on her back.

Five German activists have appealed to the Constitutional Court where, like the US Supreme Court, judges first decide whether to hear a case or let stand the lower court ruling. It has yet to decide. The five were convicted after going in and occupying the air base runway Sept. 12, 2016. Another case against four resisters who made a July 23, 2018 go-in, is on appeal to the Regional Court in Koblenz, but no hearing has been set. Following a June 18, 2018 action, one physician/organizer is also waiting for an appeal date in Koblenz. This case also alleges the doctor violated the Public Assembly law.

The increased prosecutions can be seen as reaction to growing resistance, and the absurd “resisting arrest” charge as an attempt to intimidate and quash the protests. Having faced nuclear weapons for decades, these realists don't scare that easy. —*JL*

—Martin Otto, a long-time volunteer with Nonviolent Action to Abolish Nuclear Weapons (NAAA), provided prosecution details for Nukewatch.