

# A Dangerous and Deadly Paradox - It Was Something in the Water!

by

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## Preface

In this submission, reference is always made to the National Research Centre for Environmental Toxicology (ENTOX) report titled: *Examination of the Potential Exposure of Royal Australian Navy (RAN) Personnel to Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans via Drinking Water.* (2002)

Despite claims by the Repatriation Medical Authority (RMA) to the contrary, this report has been peer reviewed several times. To the detriment of those who served, it is the **only** report of substance directly related to the exposure of RAN personnel to defoliants used in South Vietnam during the period 1962-1971. Compared to the **35** or more reports and studies carried out involving Army and land based forces in Vietnam, RAN personnel have been very poorly treated.

At the end of 2016, the HMAS *Sydney* & VLSV Assoc. (Inc. Vic.) is recorded as having 613 members, which, at the time of writing, included some non-active members. Of these, **537** had Vietnam service. The purpose of referring to these numbers is to emphasise the fact that many of our former shipmates have passed away since our inception, **69** of them with Vietnam service.

When one collates the ages of these men at passing, and then divides this by their number (**69**), one is left with an average age of **65**. By taking into consideration the Australian Institute of Health and Welfare (AIHW) - which bases its figures on Australian Bureau of Statistics (ABS) data - statement that: '*Men aged 65 in 2010-2012 could expect to live another 19.1 years (an expected age at death of 84.1)*', it can be readily assumed that service with the RAN during the Vietnam War may have had an adverse effect on the health and welfare of these men, especially when reference is made to the following factors.

1. From January 1962 until January 1971, herbicides were used by United States (US) and allied forces in South Vietnam to strip jungle growth which helped conceal the enemy, destroy food crops which the enemy might find useful, and clear tall grass and bush from around the perimeter of military camps.
2. The herbicide spraying program peaked in 1967, when over 1.6 million acres were sprayed. South Vietnam was divided up into four Corps areas, Three Corps being the most heavily sprayed area, with 53% of all herbicide spraying taking place in this area from 1965 to 1971.

3. The Rung Sat Special Zone (RSSZ) was in Three Corps, located to the South-east of Saigon, through which the Long Tao Shipping Channel wound its way. It was also the most heavily sprayed area in South Vietnam.
4. HMAS *Sydney*, and her escort destroyer or frigate, were often at anchor in Vung Tau Harbour - the waters of which were known to be contaminated by herbicide residue from the spraying of inland and coastal jungle - to disembark troops and their equipment, then embark troops for return to Australia.
5. Results published by the Department of Veterans Affairs in April 1997, reported that RAN Vietnam veterans - ***particularly RAN logistic support personnel*** - had a higher mortality rate than other Vietnam veterans.
6. There is no official record of Australian warships being sprayed with herbicide. Therefore, the only other means of exposure to RAN personnel was via the ships' water supplies.
7. In December 2002, the Minister of Veterans Affairs stated that: '*The government had commissioned a study in response to concerns by Navy veterans following the 1997 Vietnam Veterans Mortality study which showed an elevated mortality rate among RAN personnel - particularly RAN logistical support personnel.*'
8. The ENTOX study demonstrated that evaporative distillation of riverine water fails to remove contaminants - such as dioxins in water - but results in their concentration in the distilled product. The cumulative effect of the contamination in water storage tanks would have also resulted in very high concentrations. It would have taken months, even years, to completely flush the system once the ships had moved away from the contaminated waters of Vietnam.
9. The tests and experiments undertaken by ENTOX confirmed that dioxins can pass through the evaporative distillation process. It also indicated that the consumption of this potable water may have exposed personnel from all three services to dioxin levels far higher than the safe levels proposed in 2002 by the Australian National Health and Medical Research Council (NHMRC).
10. Following the release of the ENTOX report, the Minister instructed the Repatriation Medical Authority (RMA) to review its Statements of Principles (SOP) for veteran compensation claims for exposure to dioxin.
11. The seven Statements of Principle (SOP) which the RMA has amended over the intervening years to include the consumption of contaminated potable water, now incorporates the following under the sub-heading of **Factors**; *that must as a minimum exist before it can be said that a*

*reasonable hypothesis has been raised connecting (specific disease) with the circumstances of a person's relevant service is:*

- (i) *On land in Vietnam*
  - (ii) *At sea in Vietnamese waters, or*
  - (iii) *On board a vessel and consuming potable water supplied on that vessel, when the water supply had been produced by evaporative distillation of estuarine Vietnamese waters, for a cumulative period of at least thirty (30) days, at least five years before the clinical onset of (specific disease).*
12. By comparison, a claim by US Vietnam veterans for the same medical condition, is considered by what the US DVA term a *Presumptive Service Connection*. This, when applied to US Vietnam veterans' claims, presumes that: *Any veteran who served in Vietnam between January 9, 1962 and May 7, 1975, and has one or more of the diseases on the list of presumptive conditions that the VA maintains is presumed by VA to have been exposed to herbicides and therefore that his or her disease is recognized for service connection if rated as 10 per cent or more disabling.*
13. The following fifteen (15) conditions are *presumptively* recognized in US Vietnam veterans for service connection, from the date indicated.
- (1) *Chloracne (must have occurred within one year of exposure), 19 May, 1993.*
  - (2) *Non-Hodgkin's Lymphoma, 29 March, 1990.*
  - (3) *Soft Tissue Sarcoma (other than osteosarcoma, chondrosarcoma, Kaposi's sarcoma, or mesothelioma), 18 May, 1990.*
  - (4) *Hodgkin's disease, 3 February, 1994.*
  - (5) *Porphyria Cutanea Tarda (must have occurred within one year of exposure), 21 October, 1991.*
  - (6) *Multiple Myeloma, 9 June, 1994.*
  - (7) *Respiratory Cancers, including cancers of the lung, larynx, trachea and bronchus, 9 June 1994.*
  - (8) *Prostate Cancer, 7 November 1996.*
  - (9) *Acute and sub-acute Transient Peripheral Neuropathy (must appear within one year of exposure and resolve within two years of date of onset), 7 November, 1996.*
  - (10) *Type Two Diabetes, 8 May, 2001.*
  - (11) *Chronic Lymphocytic Leukaemia, 16 October, 2003.*
  - (12) *AL Amyloidosis, 7 May, 2009.*
  - (13) *B cell Leukaemia, 13 October, 2009.*
  - (14) *Ischemic Heart Disease, 13 October, 2009.*
  - (15) *Parkinson's Disease, 13 October, 2009.*

14. In 2014, the US National Academy of Sciences – Institute of Medicine, in the tenth biennial update of the publication, *Veterans & Agent Orange*, have - after reviewing current and relevant research - added *Cancer of the Urinary Bladder, Hypertension, and Hypothyroidism* to their list.
15. By comparison, the seven (7) Statements of Principle (SOP) which the RMA consider may relate to the consumption of contaminated potable water are as follows, effective from the date indicated.
  - (1) *Non-Hodgkin's Lymphoma, 12 August, 2003.*
  - (2) *Soft Tissue Sarcoma (excludes mesothelioma, Kaposi's Sarcoma, malignant neoplasm of the bone or articular cartilage, and malignant neoplasm of the lymphopoietic and haematopoietic tissue), 26 April, 2006.*
  - (3) *Hodgkin's Lymphoma, 7 October, 2004.*
  - (4) *Myeloma, 7 November, 2003.*
  - (5) *Malignant Neoplasm of the Prostate, 19 September, 2005.*
  - (6) *Malignant Neoplasm of the Larynx, 23 February, 2006.*
  - (7) *Malignant Neoplasm of the Lung, 26 April 2006.*
16. According to at least two independent Australian scientists, the Australian guidelines for a minimum of 30 days' exposure to defoliant via drinking water does not make much sense at all. The scientists have questioned this and other stipulations when they noted the following: *What was the concentration of dioxin in the water? How much water did the sailor drink during that time? The 30-day time period gives absolutely no idea of his level of exposure, and therefore should not be part of the stipulation. The US stance of no time limit when in Vietnam, and no specified level of exposure is warranted, because they realise that it is impossible to measure the level of exposure, and the time spent there with any surety, unless it was zero.*
17. When comparisons are made between the US DVA and the Australian RMA stipulations, it will be seen that the US DVA recognises at least eight more diseases related to defoliant exposure and service in Vietnam than the RMA.
18. When closely examined, the US DVA groups Respiratory cancers together as a single interrelated system, whereas the RMA has two separate SOPs. It is also evident that the RMA does not have SOPs reflecting exposure to defoliants via evaporative distillation of estuarine Vietnamese waters for at least a further six (6) medical conditions. *Type Two Diabetes, Chronic Lymphocytic Leukaemia, AL Amyloidosis, B Cell Leukaemia, Ischemic Heart Disease, or Parkinson's Disease.*

19. In December 2002, in response to the ENTOX study, the DVA were directed by the Minister to undertake a third Vietnam veterans' mortality study, and an updated Cancer incidence in Vietnam veterans study. These studies were supposed to provide a ship-by-ship analysis for Navy and Army small ships.
20. In a rather lengthy three volume report, published in 2005-2006, it appears that minimal effort was made to ascertain the number of RAN personnel who served in more than one ship. In fact, the findings only refer *to the ship on which they served*. Also, missing from these studies was an important prime variable, the multiples of 500 or more men constituting the Main Body of all but one battalion of the nine battalions who were transported to Vietnam - and subsequently returned to Australia - in HMAS *Sydney*. There were 16,000 Army personnel embarked as 'passengers' in the troop transport. Therefore, a significant number were not considered in their true service context.
21. However, these studies only served to again confirm that the incidence rates under investigation varied between the three armed services, and that the RAN, *especially Logistical Support Vietnam veterans*, had by far the highest rate of mortality or cancer incidence, followed by Army and then Air Force.
22. During 2015-2016, detailed submissions concerning *Chronic Lymphocytic Leukaemia, Diabetes Mellitus, Parkinson's disease, and Ischemic Heart disease*, were sent to the RMA for investigation and review. However, nothing of any substance has been changed - or added to - the current SOPs governing these conditions, that would reflect exposure to contaminated water while serving in Vietnamese waters.

#### References:

- Carroll, John, R, *Out of Sight, Out of Mind, The Royal Australian Navy in Vietnam, 1965-1972*, Kenhurst: Rosenberg, 2013.
- Carroll, John, R, *Out of Sight, Out of Mind, The Royal Australian Navy's Sea Transport and Logistical Support Role, Vietnam, 1965-1972*, Unpublished PhD Thesis, Monash University, 2012.