

**DR. WAYNE DWERNYCHUK ... OPINION :**  
**ON THE EXPOSURE TO AGENT ORANGE/DIOXIN RESIDUE**  
**IN C-123 AIRCRAFT**

REGARDING : Major Wesley T. Carter (Retired):

I have reviewed Jeanne Stellman's letter as well as that of Thomas Sinks (ATSDR), the two letters I have in my possession that support a high probability of exposure to dioxin in C-123 aircraft. I have 'absolutely' no argument regarding the conclusions drawn by either Dr. Stellman or Dr. Sinks. I am in total agreement with their conclusions regarding the definite existence of a potential for TCDD exposure to flight crews in the decommissioned C-123 aircraft.

In the 'denial' letter from the US Department of Veterans Affairs (DVA), there is reference to two other letters of support issued by Drs. Berman and Goepfner ... these I have not seen. However, with regard to each of the letters of support submitted, apart from Dr. Sinks, the DVA states in their denial letter that because those individuals presenting letters of support are not 'medical' doctors, only 'PH.Ds', they are not qualified to make judgments regarding the drawing of conclusions between a Veteran's exposure and his/her disabilities. I would argue that medical doctors are not scientists who are experienced in the scientific method and knowledgeable with respect to intricate study design, implementation, analyses, and data interpretation. Scientists spend considerably more time examining details of exposure potential/logistics, for example, than a medical doctor. The medical doctor examines the 'end result', the disability ... the manner in which the disability evolved, related to exposure logistics, in concert with exposure mechanisms inherent to the particular contaminant in question (e.g. cellular interaction of the contaminant), is not within the purview of a medical doctor's training and/or experience.

In the denial letter, the DVA quotes highly supportive conclusions attributed to Drs. Stellman, Berman, and Goepfner. In each case, the scientific conclusions of ... exposure in decommissioned C-123 aircraft were analogous to that of in-country Viet Nam Veterans (Stellman) ... the veteran may have been exposed to excessive levels of dioxins (Berman) ... and that the denial of this claim was not scientifically accurate and credible (Goepfner), was rejected by the DVA on the basis of a lack of connection between exposure and disability (because these individuals were Ph.Ds.). This conclusion, from my perspective, is totally without warrant. These individuals, through their respective vast experiences,

understand the ramifications of historical and operational exposures to dioxin and what may culminate from such exposures.

Also in the DVA denial letter, reference is made to the conclusions of Dr. Sinks, these being that information is insufficient to determine if the exposure levels to Veterans was low or high, or the actual risk of health complications due to this exposure ... and ... that precise measurement of contaminant concentration will not necessarily be predictive of negative health consequences). The DVA responded by stating that “... *there is no conclusive evidence that TCDD exposure causes adverse health effects*”. This statement I find blatantly disingenuous. The DVA employs the ‘presumptive exposure’ criteria in compensating US Viet Nam Veterans who had ‘boots on the ground’ in Viet Nam. In the instances where compensation is provided, given that the Veteran has fulfilled all necessary criteria, there is no “... *evidence that TCDD exposure causes adverse health effects*” ... only presumption of exposure for these Veterans, and the resulting health complication that may have ensued. As Dr. Sinks states, the concentration of dioxin does not necessarily translate to ‘no effect’ at a low dose, or an automatic ‘effect’ at a high dose. Mammalian organisms, including humans, may differ in their physiological responses to various levels of a contaminant. Different people may respond differently to specific contaminant levels with varying time frames, such that more time may be necessary before a health effect is expressed following exposure. Given that actual experimentation on humans has not been undertaken to scientifically document, over time, exposure and expression of health effects in a controlled experimental design/environment, only surrogate data are used to draw scientific conclusions. On this basis, latitude is normally given to such conclusions which inherently accommodate unavoidable scientific error.

The DVA concludes with a summation of Major Carter’s application by stating “*The Veteran did not serve in Vietnam and has not served in any other area that would allow for presumption of Agent Orange exposure or direct occupational exposure to be accepted. Medical studies showed that it was unlikely the human body was able to absorb any dioxins from residual Agent Orange on aircraft surfaces, or that any exposure would lead to adverse health effects.*” The rejection of presumptive Agent Orange exposure in the C-123 aircraft, I feel, is without warrant. As Dr. Sinks stated, there is a lack of specific data on the relative levels of exposure in the aircraft and that an actual prediction of health complication may not be possible even with precise data, this, of course, governed by the variability in physiological functions in those exposed. In the second statement reference is made by the DVA that it was ‘unlikely’ dioxins were absorbed by the Veterans or that exposure would culminate in health effects. Given that no direct studies on human contamination were done in a timely fashion over the course of C-123 use, and dioxins were, in fact, present in these aircraft, I find it inconceivable that credence is not given to the circumstance of sufficient exposure contributing to health repercussions as

likely as not. A US DVA document states “*There is a low probability that TCDD penetrated through the skin of these aircrew.*” (**Scientific Review of Agent Orange in C-123 Aircraft**). Low probability or not, there was some probability ... no directed studies were done to actually determine the ‘level of probability’ that did exist at the time of aircraft use. In addition, as Dr. Sinks indicated, even a precise measurement of dioxin may not enable a predictive scenario of negative health results. Given the many unanswered scientific questions regarding the mechanisms related to dioxin exposure and specific health consequences, and the lack of corroborating *in-situ* exposure data from actual aircraft while in use, it would seem most reasonable and logical to accept the ‘as likely as not’ phrase (related to whether or not exposure occurred) to ultimately provide suffering Veterans with compensation related to their service and, in my mind, unquestionable exposure.

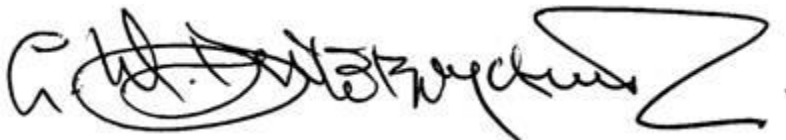
Dr. Berman summed the situation up succinctly by stating “... *it is my opinion that the personnel assigned to the C-123K Provider, particularly the most experienced crew, were more likely as not to have been exposed to excessive levels of dioxins.*” The operative phrase is more likely as not to have been exposed. This summation is the crux of the matter and should be accepted by the DVA ... this in conjunction with the undetermined levels of dioxin that may have entered a given Veteran’s body from the environment of the C-123 aircraft, and the uncertainty of what specific levels of the contaminant would actually precipitate a given health consequence.


It is clear to me that the US DVA should re-assess their position on Major Carter’s application, and perhaps others who are in similar circumstances.

I attach here my CV for your files.

Yours sincerely,

Dr. Wayne Dwernychuk (October 3, 2012)



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