

“Tactical vs Commercial” Herbicide Use No Longer Matters: An Observation

Tony Farrell, May 15, 2024

A U.S. Government Accounting Office (GAO) report published in November 2018 took on special significance when considered in the context of the U.S. Department of Veterans Affairs (VA)’s Proposed Rule Document 2024–02590 regarding exposure to toxic herbicides.^{1 2}

The VA’s proposed Change to the Federal Register includes implementation of provisions of the Sergeant First Class Heath Robinson Honoring our Promise to Address Comprehensive Toxics Act of 2022 (PACT Act). These provisions include the addition of new locations as eligible for presumption of service connection during specific time periods; listed among them is the U.S. Territory of Guam.

Why Guam Should Matter to Canal Zone Veterans

Guam is in the Pacific Ocean about $\frac{3}{4}$ of the distance from Hawaii to the Philippines. Its distance from Manila to the west is nearly equal to its distance south of Tokyo. Its location was especially advantageous to the United States in the Korean and Vietnam wars. One can sense that Guam would be vital for resupply operations to forward deployed forces. Obvious to Canal Zone veterans is the strategic value of Panama to the United States and other countries involved in international maritime trade. In the context of movements of toxic herbicides, these goods would depart U.S. ports on the Gulf of Mexico and transit the Panama Canal enroute the aforementioned conflict zones.³

¹ U.S. General Accounting Office. "AGENT ORANGE: Actions Needed to Improve Accuracy and Communication of Information on Testing and Storage Locations." GAO-19-24. U.S. General Accounting Office, Nov 2018.

² United States, Department of Veterans Affairs, “AR10-Proposed Rule-Adjudication Regulations for Disability or Death Benefit Claims Related to Exposure to Certain Herbicide Agents.” Vol. 89, No. 29, Fed. Reg., pp. 9803 – 9813.

³ A single 55-gallon drum of Agent Orange weighed about 600 pounds, which made large-scale transportation by air impossible at the time.

The GAO report states that the U.S. Department of Defense (DoD) records the presence and use of commercial herbicides on Guam, “possibly including those containing n-butyl 2,4,5-T, during the 1960s and 1970s, but documents do not indicate the use of tactical herbicides on Guam” (p.33). GAO also indicated that, during their review of documentation and several discussions with veterans and civilians, they were unable to substantiate the presence or use of Agent Orange or other “tactical” herbicides on Guam.⁴

On its face, the GAO report seems to align well generally with the situation of veterans who were stationed at any of the posts in the Panama Canal Zone from the 1950s through the 1990s.

Unlike the Canal Zone, a presumption of service connection for Guam was established through the PACT Act. If the GAO was correct that no tactical herbicides were used or stored in Guam, exclusion of the Canal Zone from the PACT Act seems even more troubling than before.

The GAO report discusses a testing plan devised jointly by the DoD, the U.S. Environmental Protection Agency (EPA), and the Guam EPA. GAO was unable to report the testing results at the time of publication. In contrast, the U.S. Army at the Aberdeen Proving Ground performed soil and water testing of samples taken from the Panama Canal Zone between 1973 and 1975. The testing revealed the presence of 2,4,5-T in the Canal Zone samples (figure 1 follows).⁵

⁴ In terms of the product produced for the U.S. military, the “tactical” and “commercial” versions of 2,4-D and 2,4,5-T with unknown amounts of dioxin TCDD (commonly, though not exclusively, known as “Agent Orange” – Agent Purple also contained these compounds) were chemically identical; the difference was in the method of application: “Commercial” use of the product involved dilution with a petroleum product, whereas “tactical” use was undiluted application.

⁵ Roan, Clifford, et. al., "Environmental Sampling in the Panama Canal Zone." US Army Environmental Hygiene Agency, 1 Dec 1976.

Pesticide Monitoring Sp Study No. 44-0102-77, 1 Dec 76

Pesticide	Amts for 10% Deflection with EC Detection (Based on 5 µl Injection Volume)	Limits of Detectability (ppm)*		
		Water	Soil & Sediment	Fish & Birds
chlorpyrifos	15.0 pg 200.0 pg (FPD - 10 µl)	0.00012 -	0.012 -	- 0.004 (FPD)
diazinon	65.0 pg 160.0 pg (FPD - 10 µl)	0.00052 -	0.052 -	- 0.0032 (FPD)
malathion	100.0 pg 250.0 pg (FPD - 10 µl)	0.00080 -	- 0.010 (FPD)†	- 0.005 (FPD)
methyl parathion	37.5 pg 150.0 pg (FPD - 10 µl)	0.00030 -	0.030 -	- 0.003 (FPD)
parathion	25.0 pg 175.0 pg (FPD - 10 µl)	0.00020 -	0.020 -	- 0.0035 (FPD)
cis-chlordane	10.0 pg	0.00008	0.008	0.004
trans-chlordane	10.0 pg	0.00008	0.008	0.004
oxychlordane	10.0 pg	0.00008	0.008	0.004
2,4-D (as methyl ester)	25.0 pg	0.00010	0.010	§
2,4,5-T (as methyl ester)	10.0 pg	0.00004	0.004	§
silvex (as methyl ester)	10.0 pg	0.00004	0.004	§

* a. Pesticides not appearing on this qualitative list are not presently being analyzed for; however, they may or may not have been present in a sample.
b. Of the pesticides on this list, only those present at or above the concentration listed for the minimum detection limit would have been reported; pesticides not meeting this criteria are designated as nr (not reportable).
† Sample extracts concentrated 10 to 1 immediately prior to injection.
§ Not analyzed for in fish and birds.

Figure 1 2,4-D and 2,4,5-T, both found in Agent Orange and Agent Purple, were present in Canal Zone soil and water samples.

The Aberdeen report proves the presence of 2,4-D and 2,4,5-T in the Canal Zone, which seems of greater evidentiary value than the *possibility* of the presence of these compounds on Guam, as the GAO stated. Yet today, veterans of service in Guam are entitled to the protections and benefits of the PACT Act, but veterans of service in the Panama Canal Zone are not.

If no evidence of “tactical” herbicide presence was found in Guam by the time the PACT Act was submitted to Congress in 2021, we must conclude that the false narrative of “tactical” vs. “commercial” herbicides adopted by the DoD was not an actual factor in the determination of whether a location was favorably considered for the service connection standard for the PACT Act.