

How to Eradicate* a Scourge

Yellow fever, malaria, and construction of the Panama Canal

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In his 1989 letter to the Commanding General of the Marine Corps Combat Development Command, the CMC, Gen Alfred M. Gray, directed the rapid establishment of a Marine Corps University. Gen Gray outlined his intent “to teach military judgment rather than knowledge.”¹ He foresaw that Marines in the 21st century would need to develop “a way of thinking in and about war that should shape our every action ... [and] a state of mind born of a bold will, intellect, initiative, and ruthless opportunism.”² Lifelong education for *all Marines* was Gen Gray’s vision. In this vein, this three-part case study analyzes a complex situation from an earlier time when military planners confronted what seemed an intractable problem: how to deal with yellow fever and malaria during construction of the Panama Canal.

French and American engineers learned that in order to complete construction of the Panama Canal, the devastating scourges of yellow fever and malaria would have to be reduced or outright eradicated. These tasks subsequently required great stores of leadership, intellect, moral courage, commitment, and perseverance as well as scientific and statistical analysis of complex data. The military leaders for this mission had to develop the capabilities to deliver and execute commanders’ intent; anticipate, identify, and overcome obstacles; assess and shape the situation; analyze and leverage scientific and statistical data; and break a complex problem down into simple yet executable parts that could be understood and executed by subordinates. They also had to improvise and adapt. As the foundation of our maneuver war-



“Gorgas’ work did not stop with completion of the canal—he later served as president of the American Medical Association and as surgeon general of the US Army.”⁵ (Photograph courtesy University of Florida Digital Library of the Caribbean (dLOC), George A. Smathers Libraries, 2017.)


fare philosophy, *MCDP 1, Warfighting*, explains, “providing intent is to allow subordinates to exercise judgment and initiative—to depart from the original plan when the unforeseen occurs—in a way that is consistent with higher commanders’ aim.”³ There’s much we can learn from this case.

Gen Gray’s vision for MCU was that “history should be used to teach officers [and NCOs] military judgment.”⁴ Accordingly, this case is *not* intended to make you and your Marines experts on yellow fever, malaria, or construction of the Panama Canal, although these subjects are certainly interesting. Rather, as you delve into the details of this fascinating story, consider some of our Corps’ modern “scourges” and how you, as a leader of Marines, will deal

with them. Can we develop and execute a campaign plan? How will we break it down into simple parts and supervise it? How will we aggressively assess its effectiveness? Applying the tenets of maneuver warfare to solving complex problems is what the American people expect from their Marines to get better. The story of the eradication of yellow fever can help us do so.

>Editor’s Note: The three-part case study is available at <https://www.usmcu.edu/lli/marine-leader-development/discussion-topics>.

Notes

1. Gen Alfred M. Gray, “Letter to CG, Marine Corps Combat Development Command,” (Quantico, VA: July 1989).
2. Headquarters Marine Corps, *MCDP 1 Warfighting*, (Washington, DC: 1997).
3. Ibid.
4. “Letter to CG, Marine Corps Combat Development Command.”
5. Robert Patterson, M.D., “William Gorgas and His War with the Mosquito,” *Canadian Medical Association Journal*, (Online: September 1989), available at <https://www.ncbi.nlm.nih.gov>. 

* “Eradicate” is a strong word. It means not only to drive the incidents of a scourge all the way down to zero, but also to do so in such a way that it never returns. Accordingly, eradication of a scourge is very difficult. This is exactly what Col William Gorgas and John Stevens did to yellow fever in Panama from July 1905 to December 1906—they eradicated it. Their lesson for us is a powerful one: eradicating a scourge seems impossible until someone actually does it.

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