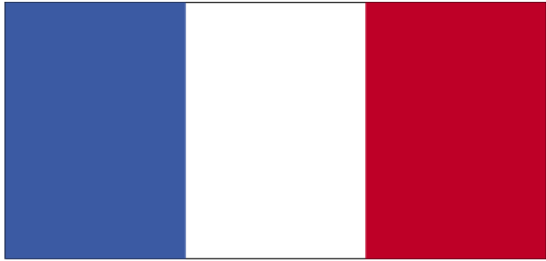


The Tonkin War August 20



The Sino-French or Tonkin War of August 1884-April 1885 is a first heard for most general readers. China and France fought over control of Vietnam, especially the northern portion, then known as Tonkin. The war is unusual because the Chinese military performed better than it had against other western nations at this time, especially in the ground fighting, yet the French prevailed at the peace table, giving them undisputed control over much of Vietnam. We remember also that the United States got involved militarily in Vietnam originally to fill the void left by France, which departed from the region after the 1954 Geneva Convention divided Indochina into North Vietnam, South Vietnam, Laos and Cambodia; it all began for the French in this part of the world due to the Sino-French War of 1884-1885.*

Previous *History Today* articles have mentioned the problems China experienced cryptologically in its conflicts with its neighbors during this time period. As a case in point, it is now common knowledge that the Japanese had broken the Chinese diplomatic MIHONG code and others in the early 1890s, which facilitated military success in their 1894-1895 war with China. A problem that the Chinese had in the abovementioned Sino-French War with France is that the foreign commercial cable companies (the Eastern Extension Company and the Great Northern Telegraph Company) operating within China were apparently helping France, contrary to their pro-Chinese claims. China's ruling Qing Dynasty (1644-1912) reacted by exerting even more control over its own cable operations, to include banning the use of foreign codes being used within China itself.

Specifically, the Qing rulers adopted for their communications what was known as the *JIAJIANFA* (adding and subtraction method) to make their codes more secure.

Standard Chinese telegraphic codebooks back then used four numbers to represent a Chinese character/word. Essentially both the sender and recipient of a coded telegraphic message had to use the same codebook, usually commercially available, to encode/decode. The *JIAJIANFA* was an attempt by the Qing at encryption of this number. Although the standard Chinese telegraphic codebook, for example, would use 0022 0948 for China (*ZHONG GUO*), the sender would transmit 0012 0938 by telegraph instead, with the receiver simply adding ten digits to each four digit group by prearrangement to get the desired word (another other way, of course, would have the sender adding ten instead of subtracting). The first known use of this system was on August 18, 1884, when a telegraphic edict dictated that “from now on, governors and generals should add or subtract the telegraph code numbers by twenty.”

For the record, CCH knows of no specific instances of *JIAJIANFA* being deployed on the battlefield during the war itself. We suspect that, given the paucity of telegraph lines in China and Southeast Asia at the time, *JIAJIANFA*, convenient to implement, was deployed primarily as a diplomatic code by the Qing in the war. Yet it would not offer much security against a competent adversary—and the French were hardly cryptologic amateurs. It is telling perhaps that the French, as noted earlier, won diplomatically against the Chinese in this war despite suffering some military setbacks. The author of this article believes cryptanalysis might have been the explanation for this. Historians need more than just coincidences, though, and the author will continue to investigate.

* France had long had interests in the region prior to this time. In the wake of the victory over China, France in 1887 established a protectorate over Indochina (Tonkin, Annam, Cochin China (all parts of Vietnam), Cambodia and later Laos.

Sources: “Dashed Expectations: Limitations of the Telegraphic Service in the Late Qing” by Wook Yoon, *Modern Asian Studies*, 49, 3 (2015); Decryption in Progress: The Sino-Japanese War of 1894-1895 by Greg Nedved, *Cryptologic Quarterly*, 2017-03, Vol. 36