



Geospatial Analysis of the First Shot of the Philippine- American War

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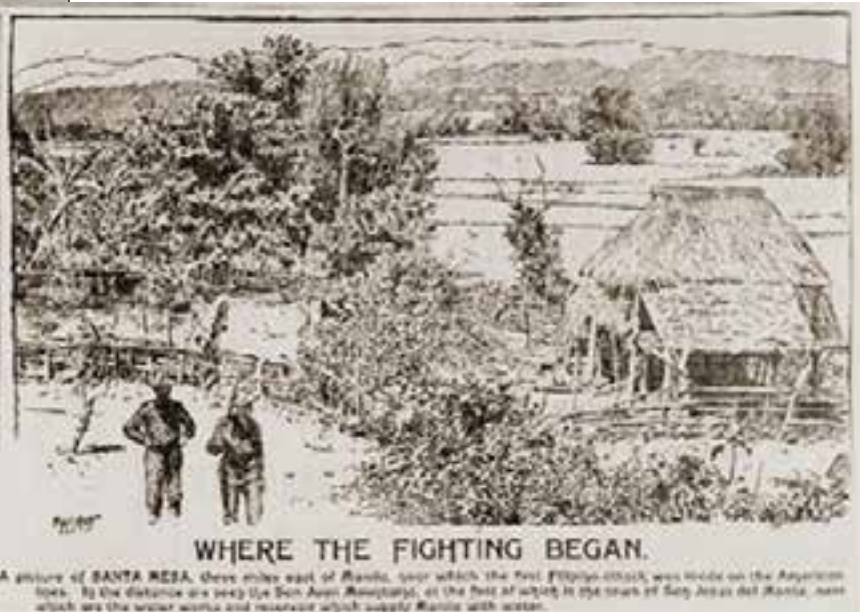
Outline

- › Introduction
- › Problem and Objective
- › Data and Methodology
- › Results and Discussion
- › Conclusion

Geospatial Analysis of the First Shot of the Philippine-American War

How the Philippine-American War Started?

- › It all started with the First Shot by Pvt. William Grayson



Pvt. William W. Grayson. Photo was taken near Blockhouse No. 7 on the spot where he fired the first shot.

Where did the First Shot really took place?

- › The location where the first shot that triggered the Philippine-American War occurred has always been controversial. The monument was transferred from to San Juan Bridge in San Juan City to Sociego Street in Manila.
- › However, there are those saying that the first shot occurred somewhere else.
- › The National Historical Commission of the Philippines needed to assess and act on the claims of some historians.

Philippine-American War, 1899-1902

by Arnaldo Dumindin

First Shot of the War, Feb. 4, 1899

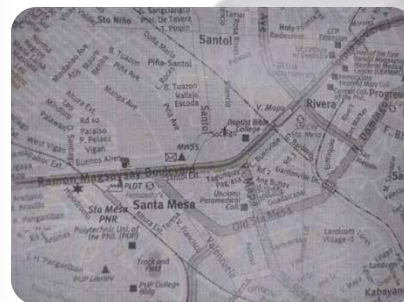
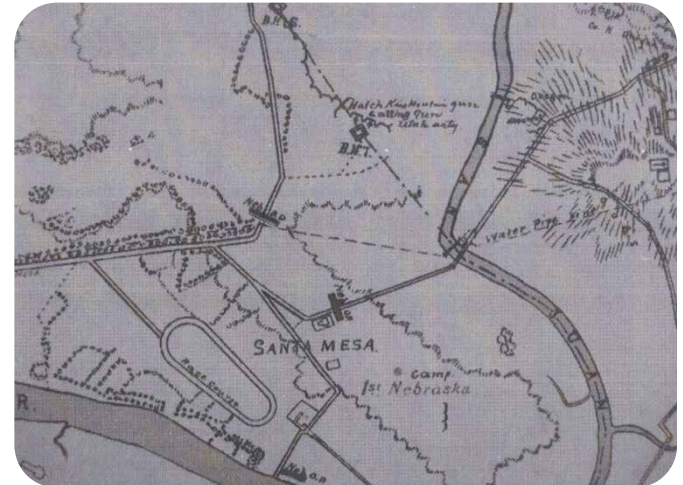


San Juan Bridge: Contrary to popular belief that prevailed for over a century, the first shot of the Philippine-American War was not fired on this bridge but on Sociego Street in Santa Mesa district, Manila. The Philippines' National Historical Institute (NHI) recognized this fact through Board Resolution 7 Series of 2003. On Feb. 4, 2004 the marker on the bridge was removed and transferred to a site at the corner of Sociego and Silencio streets.

OBJECTIVE

- › Determine the possible location where the First Shot was fired.

- › Historical texts
- › Old and new maps
- › High resolution satellite images
- › Scanner
- › ArcGIS



Where did the First Shot took place?

PRELIMINARY
ANALYSIS OF
MAPS AND
TEXTS

ASSESSMENT OF
MAP "RELIABILITY"

GEOSPATIAL
RECONSTRUCTION
OF EVENTS

DISCUSSION WITH HISTORIANS

FINDINGS AND RECOMMENDATIONS TO NHCP

Comparison of Maps

- › Comparing the different maps during the period, it can easily be concluded that each show key features such as roads, houses and other structures.
- › The maps show different stages of road development.
 - › It is worth noting that even the “older” map (e.g., 1898 Map in Wilcox, 1900, p. 56) showed more constructed roads than “newer” maps (e.g., 1901 map in Pronouncing Gazeeter 1902 shown in Figure 2).
- › Newer maps do not necessarily contain the latest and more accurate data.

Georeferencing of Scanned Maps

- › Several old map were georeferenced (using **Affine transformation** which implements rotation, scaling, and translation while preserving orthogonality) with respect to high-resolution satellite image and road network (digitized from large scale digital orthophoto).
- › By this procedure, it can be determined which of the old maps accurately depict the roads and potentially other features/objects as well.

Georeferenced "Map in Compilation of PIR, 1903, frontispiece insert" using 1st Order Polynomial Transformation.



Georeferenced "Map in Otis Report Part 2, 1899" using 1st Order Polynomial Transformation.



Georeferenced "1901 map in Pronouncing Gazeeter 1902" using 1st Order Polynomial Transformation.



Positional Accuracy

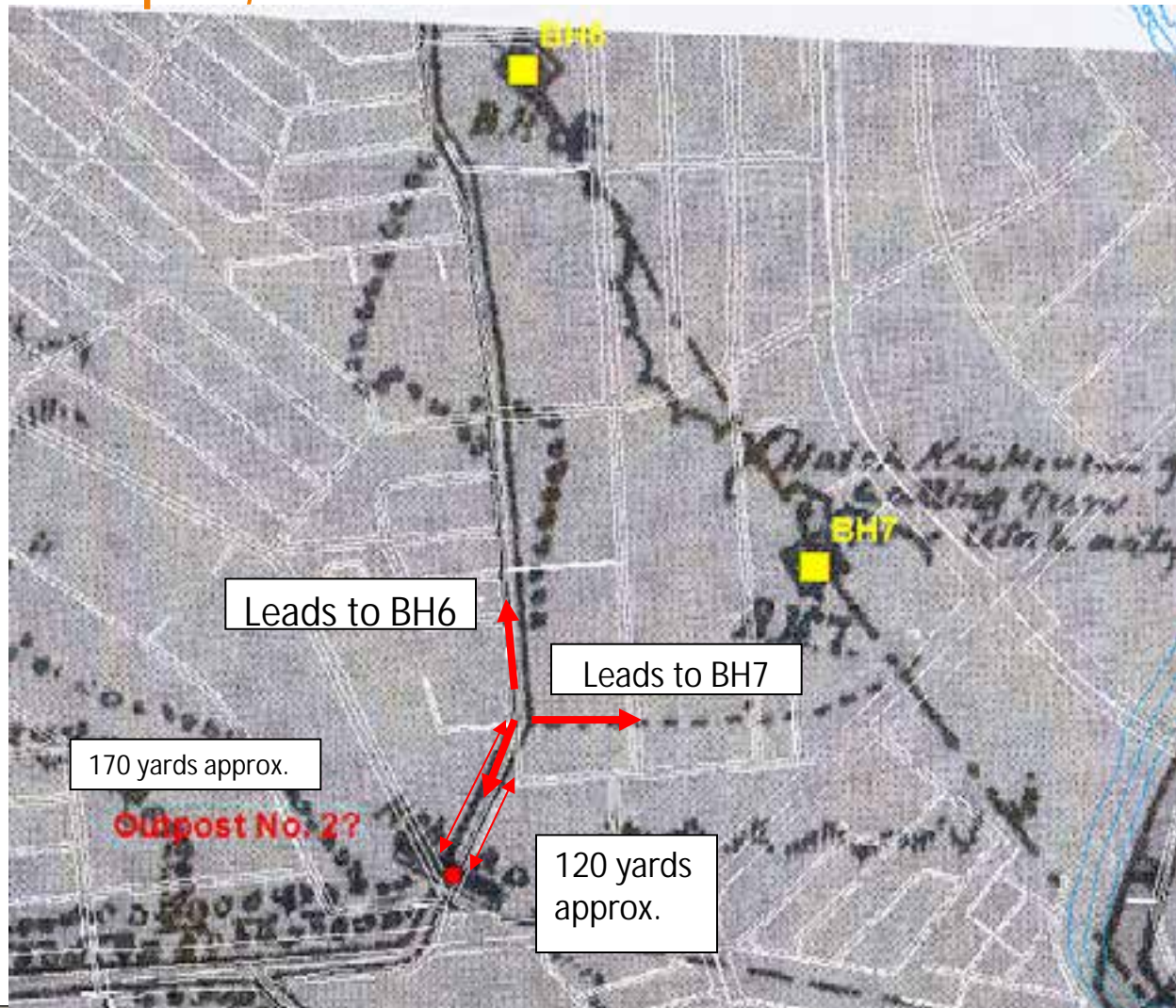
- › Map No. 2 is the most accurate (in terms of overall scaling, complete road features, and road alignments) among the three old maps compared.
- › If the roads are correctly depicted, it is likely the objects such as outposts and blockhouses are also shown in their proper location as these features are easily located with reference to linear elements like roads.



Spatial Reconstruction of the Account of Wheedon

- › “On Saturday evening, February 4, 1899, at 7 o’clock, I took charge of Outpost No. 2, as ordered. From this outpost, about 100 yards down the road which passes it, is the town of Santol. Here we had a Cossack post of 8 men stationed at the junction of 3 roads, one leading to Outpost No. 2, another leading to Blockhouse No. 7, the third to Blockhouse No. 6.”

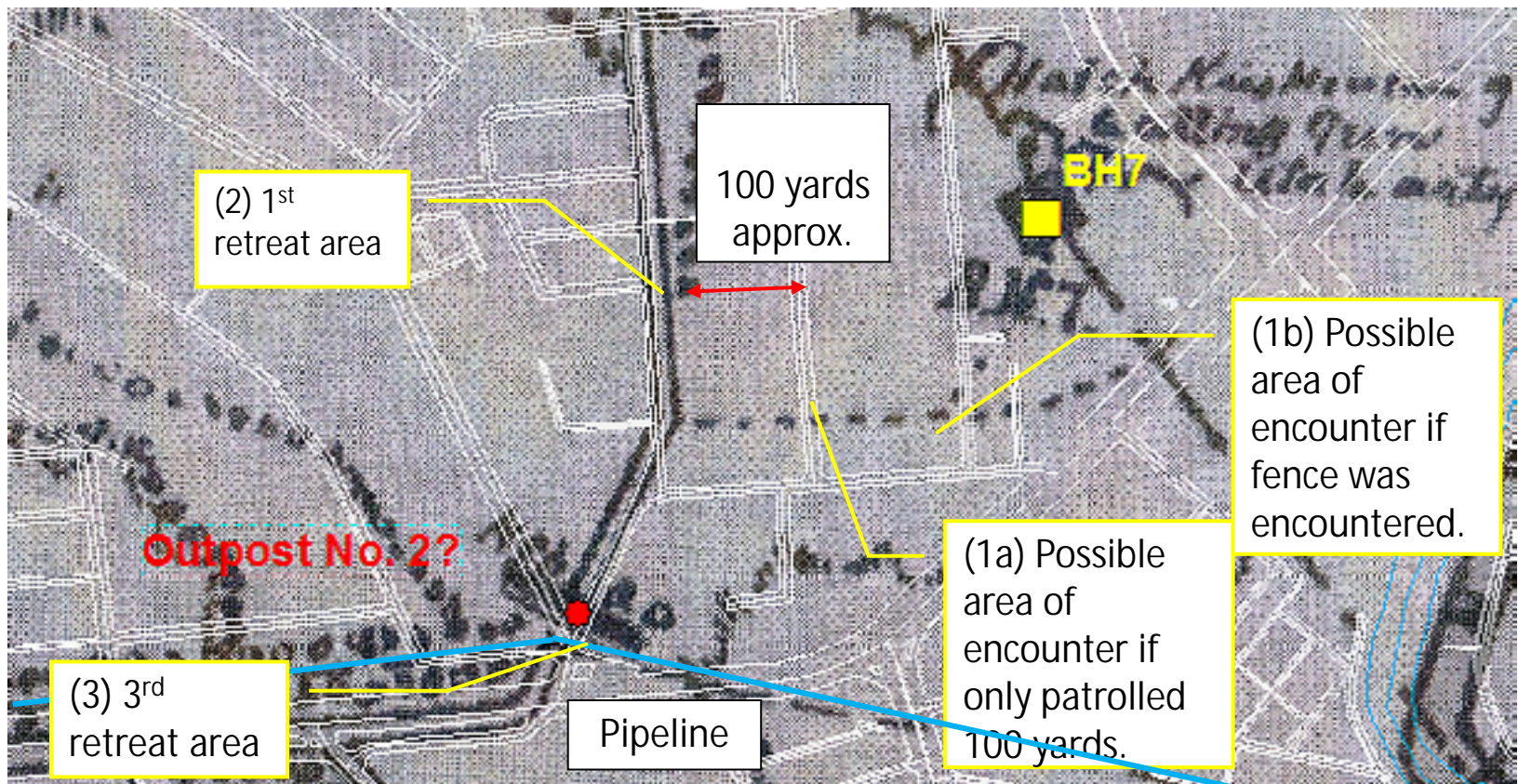
Figure 1. Relative locations of assumed Outpost No. 2, Cossack post, and Blockhouses.



- › “I also instructed them to patrol each of the roads leading to Blockhouses 6 and 7 for 100 yards every half hour. Shortly after 8 o'clock a patrol of 3 men advanced from Santol towards Blockhouse 7. After proceeding about 100 yards they halted at the side of the road and waited to see if there were any insurgents in the vicinity. Private William Grayson, Company D, was a short distance in advance of the other two. After waiting for five minutes, Private Grayson saw 4 armed men suddenly appear 5 yards in advance of him. He immediately called “Halt!” as did also Private Miller, Company D, who was in rear of him and saw the men at the same time. At this command they cocked their pieces, whereupon Private Grayson called “Halt!” again and fired at them. Our 3 men then retreated to the town of Santol, where I met them, being at the town when the shot was fired.”

- > "Immediately after the shot was fired we could hear the insurgents coming down the road from Blockhouse 7. I **sent a man back to the outpost** to signal the Nebraska camp that the insurgents were coming from the blockhouse. I remained with the man in Santol and in about three minutes from the time our man fired the shot several armed men emerged from the **trees in our front across the road** and the **houses on our right** and fired toward us where we were kneeling in the opposite side of the road. We returned their fire with a volley and then **fell back along the road to the pipe line which lies near Outpost No. 2**, the enemy keeping up a rapid fire along the road for about 5 minutes. We fired no more after leaving Santol until later in the evening."

Figure 2. Possible locations of encounter and retreats.



- › The outpost in Santol road is about 20 yards from the pipe line.
- › The outpost in the old Santa Mesa road is not near the pipe line. It was approximately 670 yards from the pipe line passing through Santol village and about 500 yards to the river crossing, measured along the old Santa Mesa road.
- › In Map No. 1 and Map No. 3, there were no houses in the immediate vicinity of the outpost in the old Santa Mesa road. There are houses in Santol village, where the 3 soldiers retreated.
- › The two outposts (Santol road and old Santa Mesa) were intervisible so signalling is easy.

- › “At about half past 8 p.m., February 4, an insurgent patrol, consisting of **4 armed soldiers**, entered our territory at **Blockhouse No. 7**, and advanced to **the little village of Santol**, which was occupied from the **pipeline outpost of the Nebraska regiment**. This, it will be observed, was precisely the point referred to in the correspondence above quoted. The American sentinel challenged twice, and then, as the insurgent patrol continued to advance, he fired, whereupon the patrol retired to Blockhouse 7, from whence fire was immediately opened by the entire insurgent outpost at that point.”

- › Does this refer to the same incident as described by Wheedon above? I think so!
- › Similarities: Roughly the same time period, Blockhouse 7, near Santol, same number of insurgents/soldiers, challenged twice (shouted Halt! twice) then fired at the insurgents
- › Differences: 4 armed Filipino soldiers; Insurgents retired to Blockhouse 7; no mention of casualties (but does not mean there were not)
- › “Pipeline outpost” is Outpost No. 2 mentioned by Wheedon.

- > "That night about 8 o'clock, Miller and I – there were two of us – were cautiously pacing our district. We came to a fence and were trying to see what the Filipinos were up to. Suddenly, near at hand, on our left, there was a low but unmistakable Filipino outpost signal from Blockhouse No. 7. We have never seen such a sign used before. In a moment something rose slowly up not 20 feet in front of us. It was a Filipino. I yelled "halt", and I made it pretty loud, for I was accustomed to challenging the office of the guard in approved military style. The man moved. I challenged him with another loud "halt". Then he imprudently shouted "halto" at me."

- > "Well, I thought the best thing to do was to shoot him. He dropped. If I did not kill him I guess he died of fright. The two Filipinos sprang out of the gateway about 15 feet from us. I called "halt" and Miller fired and dropped one. I saw another was left. Well, I think I got my second Filipino at that time. We retreated to where our six other fellows were, and I said: "Line up fellow, the "niggers" are in here all through these yards." We then retreated in the pipeline and got behind the water main and stayed there all night. It was some minutes after our second shots before the Filipinos began firing."
- > SOURCE: (Ora Williams, Oriental America: Official and Authentic Records of the Dealings of the United States with the Natives of Luzon and their Former Rulers, Chicago, 1899)

REMARKS

- › Similarities with Wheedon's account: about the same time; soldiers were pacing or patrolling; Grayson challenged twice; 20 yards (Wheedon's) approximately 15-20 feet (Grayson's); retreated after firing and killing the Filipino soldiers; retreated to the pipeline.
- › Differences: 3 American soldiers (Wheedon's); 2 American soldiers (Grayson's)
- › There were fences surrounding the Nebraska camp and there was also a fence connecting Blockhouse No. 7 and the trail from Santol village. The latter fence must be the one encountered by Grayson. This fence is approximately 200 yards from the road junction. While they were instructed to patrol 100 yards, they could have patrolled more than 100 yards.

REMARKS

- › Map in Figure 2 shows Blockhouse No. 7 was to Grayson's left. This is consistent with his account.
- › Comment on the fence and retreats (they retreated twice): If the event happened in the old Santa Mesa road (as Encarnacion claims), they would have encountered the Filipino soldiers very close (few yards) to the Nebraska camp as the fence is about 130 yards from the outpost in that road. Grayson said they retreated to where six other soldiers were and then to the pipeline. Certainly, they will not retreat to the pipeline near the bridge! Would you retreat to a place where the enemies supposedly came from? If they indeed retreated to the pipeline near the bridge, where then was the location of Grayson's fellows? It would mean that they are between the bridge and the fence, and if so, they would have encountered the Filipino soldiers first. But Grayson's fellow were in the town of Santol based on Wheedon's account.
- › Note that the bridge is around 480 yards from the outpost in the old Santa Mesa road. Could have Grayson's group patrolled this far?

- › “At about half past 8 p.m., the guard in the village of Santol about 200 yards southwest of Blockhouse No. 7 challenged four armed Filipino patrol cocked their pistols. The sentinel challenged again, and then, as the natives did not halt, but continued to advance, he fired. This was immediately replied to follow Blockhouse No. 7 and in about 15 minutes fire was opened on our camp...” (Report of the Maj. Gen. Commanding Army, I pt. 4, pp462-63)

This refers to the same incident as described by Grayson and Wheedon above.

The road junction in the village of Santol is approximately 330 yards southwest of Blockhouse No. 7. The fence-junction intersection is around 190 yards southwest of Blockhouse No. 7.

Four armed Filipinos (same as MacArthur's account!)

The Location of the First Shot

- › Based on the accounts of Grayson and Wheedon, both considered as eyewitness accounts, the encounter ("first shot") occurred along the trail leading from Santol village to Blockhouse No. 7. This trail is the present day Sociego Street (identified in a georeferenced map using Spline Transformation to account for the varying scales throughout the map). This is supported by the accounts or reports of Stotsenburg and MacArthur.
- › However, it is not certain that the encounter really happened at the intersection of Sociego Street and Silencio Street.