# British Codebreaking and American Diplomatic Telegrams, 1914-1915

### ABSTRACT

During the First World War, British intelligence solved the United States' diplomatic codes and were reading its diplomatic telegrams transmitted between Washington and U.S. diplomatic outposts throughout Europe. Controversy has emerged over when the British succeeded in solving these codes, with two historians relatively recently having claimed that British intelligence succeeded in doing so from the beginning of the war or soon after. Through a thorough consideration of the available documentation, this piece aims to correct these mistaken claims and to date the completion of the British solving of American codebooks to the middle phase of the war, to between October 1915 and January 1916. It seeks to lay reliable foundations for further work by showing that research into the wartime impact of British signals intelligence on Anglo-American relations is necessarily limited to only the middle and later phases of the war.

#### INTRODUCTION

Ever since its founding late last century, the subfield of intelligence history has very often been encapsulated by the phrase 'the missing dimension', and even though it has become something of a cliché, it has only become so because it remains so utterly true in many historical periods. For the First World War, the gaps in our intelligence knowledge are more along the lines of gaping chasms, to the extent that one can virtually assume that almost every facet of the war is marked by an unexplored intelligence dimension. Yet as injurious to scholarship as the ignoring of intelligence has been, the belief that an intelligence angle remains *missing* in a particular area when in reality there simply *was not* any such dimension there can be as just as damaging and misleading. It raises unnecessary question marks over the existing historiography and invites scholars to pursue avenues of research leading at best to nowhere or, worse, to deeply flawed conclusions.

For Anglo-American relations early in the First World War, this is precisely the case. Two historians have claimed relatively recently that the British were breaking American diplomatic codes from the beginning of the war or shortly thereafter—claims with the clear implication that there is a significant missing intelligence dimension to our understanding of Anglo-American relations early in the war.<sup>3</sup> Previous work had only shown the British breaking American codes

<sup>&</sup>lt;sup>1</sup> Christopher Andrew and David Dilks (eds.), *The Missing Dimension: Governments and Intelligence Communities in the Twentieth Century* (Urbana, Chicago: University of Illinois Press 1984).

<sup>&</sup>lt;sup>2</sup> Daniel Larsen, 'Intelligence in the First World War: The State of the Field', *Intelligence and National Security* 29/2 (2014) pp.282-302.

<sup>&</sup>lt;sup>3</sup> Paul Gannon, *Inside Room 40: The Codebreakers of World War 1* (Hersham: Ian Allan 2010) p.122; Nicholas Lambert, *Planning Armageddon: British Economic Warfare and the First World War* (Cambridge: Harvard University Press 2012) pp.263-264, 424.

from the middle phase of the war onwards—research that showed considerable potential for this avenue of investigation, demonstrating not only its capacity to offer meaningful contributions to the field of First World War intelligence studies, but also its ability to occasion the reconsideration of much wider and long-established conclusions. Given this prior research in combination with all of the complications and difficulties in Anglo-American relations early in the war, there is every reason to believe that any as-yet-unexplored intelligence angle would have the potential to fundamentally transform our understanding of this relationship in the first phase of the war.

A close examination of the evidence relied upon by these two historians, which include noted academic historian Nicholas Lambert, however, does not support their contentions. This piece offers a considered examination of this evidence and demonstrates that the documents they cite do not, in fact, demonstrate any British codebreaking success with respect to the United States in the first part of the war. It then explores what limited reliable documentation exists about the origins of British codebreaking abilities vis-à-vis the United States. Although the remaining reliable evidence is sparse, it nevertheless shows that the British were breaking American codes only from the middle phase of the war onwards, a task that appears to have been completed sometime between September 1915 and January 1916. A previous article I wrote explored the role of this codebreaking in Anglo-American relations in early 1916; this piece aims to demonstrate that there is minimal scope for further research into this topic prior to the period explored in that article.<sup>5</sup>

### **BACKGROUND**

Great Britain had no significant codebreaking capabilities in the years leading up to the First World War, but this changed rapidly with the outbreak of war in 1914.<sup>6</sup> Two codebreaking groups were established. In the Admiralty, a group called Room 40, named after its original location in the Old Admiralty Building, was formed. Initially, it worked principally on German naval codes before eventually expanding into the diplomatic codes of Germany and other, mostly enemy, countries.<sup>7</sup>

In the War Office, a codebreaking unit that for most of the war would be known as MI1(b) had originated out of a primitive pre-war intelligence group. A three-man team was formed at the beginning of the twentieth century within the Military Operations directorate, which came to be known as MO5(a) and was tasked with studying ciphers 'among many "odds and ends". Their

<sup>&</sup>lt;sup>4</sup> Daniel Larsen, 'British Intelligence and the 1916 Mediation Mission of Colonel Edward M. House', *Intelligence and National Security* 25/5 (2010) pp.682-704; Daniel Larsen, 'War Pessimism in Britain and an American Peace in Early 1916', *International History Review* 34/4 (2012) pp.795-817; Peter Freeman, 'MI1(b) and the Origins of British Diplomatic Cryptanalysis', *Intelligence and National Security* 22/2 (2007) pp.206-228.

<sup>5</sup> Larsen, 'British Intelligence'.

<sup>&</sup>lt;sup>6</sup> John Ferris, 'Before "Room 40": The British Empire and Signals Intelligence, 1898-1914', *Journal of Strategic Studies* 12/4 (1989), pp.431-457; John Ferris, 'The Road to Bletchley Park: The British Experience with Signals Intelligence, 1892-1945', *Intelligence and National Security* 17/1 (2002) pp.53-84; Christopher Andrew, *Secret Service: The Making of the British Intelligence Community* (London: Heinemann 1985) chs.1-2.

<sup>&</sup>lt;sup>7</sup> Andrew, Secret Service, ch.3; Patrick Beesly, Room 40: British Naval Intelligence 1914-1918 (London: Hamish Hamilton 1982); Gannon, Inside Room 40; Nicholas Hiley, "The Strategic Origins of Room 40', Intelligence and National Security 2/2 (1987) pp.245-73.

work, however, was desultory and mostly academic until the outbreak of the First World War.<sup>8</sup> As the German military advanced through Belgium and into France in late 1914, the British army found itself 'intercept[ing] enemy wireless' messages, which MO5(a), now designated MO5(e), became tasked with deciphering. Diplomatic decryption work began early the next year, and the group was redesignated MO6(b) in April 1915. In December 1915, the Military Intelligence directorate was founded. The slowly expanding MO6(b) team was immediately relocated into the new directorate and given the designation MI1(b), which would follow it until 1919.<sup>9</sup> For clarity, this article will hereafter refer to this section only by the name 'MI1(b)', rather than to expect the reader to keep track of its array of prior designations.

As will be shown below, MI1(b) began working to solve American diplomatic codes early in 1915, but only succeeded fully in the endeavour that autumn. The Americans had three principal codebooks that they used to encipher their transmissions. The most important was the Green Code of 1910, followed by the Blue Code of 1899. The Green Code was the principal codebook used by American embassies and ministries for higher-level communications, while the Blue Code was generally used for less important messages, or to transmit quotations of documents provided by a foreign government. A third codebook, the Red Code of 1876, was relegated to consular use and is unlikely to have been of any significance at the diplomatic level. Helpful for researchers, in the U.S. National Archives, the code each telegram was transmitted in almost always is noted in the upper right hand corner of the document—'Green', 'Blue', or 'Red'—along with the date, sender, and State Department time of decryption. Those without encryption were marked 'Plain' in the same place that the code would ordinarily be noted, and one readily finds many such examples in State Department files in this period. Helpful finds many such examples in State Department files in this period.

None of these three codebooks provided strong security. All three belonged to a class of codes called 'one-part codes', in which each plaintext word or phrase was given a five-letter codeword or five-digit code number. As the entire code was contained in only a single volume, used to both encode and decode messages, however, the code had to be organized in alphabetical order. These were significantly less secure than 'two-part codes', in which separate volumes for encoding and decoding messages existed, with this more advanced type of code therefore constructed in a random, rather than alphabetical order.<sup>12</sup>

<sup>&</sup>lt;sup>8</sup> Ferris, 'Before "Room 40", pp.443-444.

<sup>&</sup>lt;sup>9</sup> The UK National Archives [NA], HW 7/35, Official History of MI1(b); National Army Museum [NAM], Esher Papers, Acc. 2006-11-57, Vol. I, R. H. Brade Memorandum No. 803, 12 April 1915, War Office Memorandum, 15 May 1915, War Office Organizational Chart [1915]; Ferris, 'Before "Room 40", pp.444-445; Freeman, 'MI1(b)', pp.207-210.

Neber, 'State Department Cryptographic Security, Herbert O. Yardley, & President Woodrow Wilson's Secret Code' in In the Name of Intelligence: Essays in Honor of Walter Pforzheimer, Hayden B. Peake and Samuel Halpern (eds.), (Washington: NIBC Press 1994) pp.543-596 at pp.555-570; Ralph E. Weber, United States Diplomatic Codes and Ciphers 1775-1938 (Chicago: Precedent Publishing Inc. 1979) pp.241-248; Fred B. Wrixon, Codes, Ciphers, Secrets and Cryptic Communication: Making and Breaking Secret Messages from Hieroglyphs to the Internet (New York: Black Dog & Leventhal 1998) pp.337-344. See also Wayne G. Barker (ed.), The History of Codes and Ciphers in the United States During World War I (Laguna Hills, CA: Aegean Park Press 1979); Cipher of the Department of State [1918], Georgetown University Lauinger Library Special Collections, MI-14863.

<sup>&</sup>lt;sup>11</sup> See U.S. National Archives and Records Administration [NARA], Record Group 59, State Department Decimal File 1910-1929.

<sup>&</sup>lt;sup>12</sup> See note 10, above.

This question is particularly important because if MI1(b) would have succeeded in breaking the Green and Blue codes at the earlier times that has been claimed, they would have had a wealth of important intelligence material available to them. Anglo-American relations in the first year of the war was rocked by a series of controversies and marked by significant American diplomacy. Not only would the British have had the contents of the telegrams between Washington and the U.S.'s European diplomatic outposts, but they would have also had those between American President Woodrow Wilson and his close personal confidant Colonel Edward House, as the latter was present in Europe from February to June 1915. 13 During House's subsequent mission to Europe early the following year, he was extremely mindful of the contents of his telegrams and purposefully kept them as short and vague as possible.<sup>14</sup> In 1915, however, House wholly trusted his coding arrangements and very frequently telegraphed detailed reports to Wilson. 15 If the British had been reading these messages, it seems virtually certain that this would form an integral part of any accurate narrative of Anglo-American relations in this period—and that an exploration into this dimension could therefore significantly alter or even transform that narrative. For this reason, it is essential that the beginning of the British breaking American diplomatic codes be dated as accurately as possible.

## PREVIOUS HISTORICAL CLAIMS

Two historians have claimed relatively recently that British intelligence had solved American codes prior to the autumn of 1915. Each relies on a different set of British documentation, which they believe are decrypts of American diplomatic telegrams from 1914 or early 1915. Both mistakenly interpret their respective sets of evidence. In reality, they have either uncovered decrypts that are actually from a later period or documents that are not in fact decrypts at all.

Popular historian Paul Gannon, in his 2010 trade book *Inside Room 40*, makes an understandable and easily corrected mistake. He argued that the 'first surviving copy of a decoded US telegram dates from 3 May 1915', <sup>16</sup> relying on a small cache of decrypts found in War Office files. This cache, consisting of 12 decrypts of American telegrams supposedly ranging in dates from May 1915 to April 1916, contains four decrypts that the index to the file says are from 6-10 May 1915; the next in the file is from 25 September. On each of the four decrypts, however, the year '1915' is not on the original, and has been pencilled in after the fact with a question mark, presumably by an archivist or someone preparing the file for the archives. <sup>17</sup> Whoever pencilled in these dates was in error: originals of these telegrams can be located in American documentation, showing

<sup>&</sup>lt;sup>13</sup> An exhaustive list is impractical here, but see for example and in particular, Arthur Link, Wilson: The Struggle for Neutrality 1914-1915 (Princeton: Princeton University Press 1960); Patrick Devlin, Too Proud to Fight: Woodrow Wilson's Neutrality (London: Oxford University Press 1974), chs.5-12; Lambert, Planning Armageddon, chs.6-10; Charles Neu, Colonel House: A Biography of Woodrow Wilson's Silent Partner (Oxford: Oxford University Press 2015) chs.12-17.

<sup>14</sup> Larsen, 'British Intelligence'.

<sup>&</sup>lt;sup>15</sup> See Weber, 'State Department', pp.576-577; Arthur Link (ed.), *The Papers of Woodrow Wilson* (Princeton: Princeton University Press 1966-1994), vol.32, pp.300-301, 304, 328, 335, 372, 403, 422-423, 429, 455-456, 462, 475, 504, 521, 523-524, 531-532, vol.33, pp.10-11, 12-13, 63-64, 88-89, 105-106, 134, 190, 198, 205, 217, 222-223, 229, 239, 247-248, 253, 257, 266-267, 321.

<sup>&</sup>lt;sup>16</sup> Gannon, *Inside Room 40*, 122; cf. Larsen, 'British Intelligence', p.690 n.47.

<sup>&</sup>lt;sup>17</sup> NA WO 106/6072.

that they were actually sent in 1916, not 1915. 18 Only the decrypt dated 25 September 1915 can be shown to *actually* be from 1915. 19

More notably, academic historian Nicholas Lambert in his book *Planning Armageddon* pointed to intercepts of American diplomatic telegrams in two Admiralty blockade files from 1914 and 1915.<sup>20</sup> He used these to claim that in late 1914, British

naval intelligence possessed irrefutable proof, in the form of intercepted telegrams between the State Department and its various legations in Europe, some encrypted and all sent via circuitous routes, that high-ranking U.S. officials were colluding with German traders. (British naval intelligence evidently was reading encrypted U.S. diplomatic traffic throughout the entire war rather than from the midpoint onward, as scholars have previously suspected.)<sup>21</sup>

Later in his book, he uses one of these files to claim specifically that 'British naval intelligence was listening' when Wilson sent telegraphic instructions to House after the 7 May 1915 sinking by Germany of British passenger liner *Lusitania*.<sup>22</sup> Fortunately Lambert does not attempt to build significantly on these claims, so only these particular assertions, rather than the broader historical conclusions he makes in his book, are challenged here.

Lambert has clearly made a mistake in the decryption agency involved. American telegrams were decrypted by the War Office organization MI1(b), not by its naval counterpart Room 40. Indeed, Room 40 did not open its 'political' division, focussing on diplomatic codes, until the autumn of 1915.<sup>23</sup> Lambert cites a series of copies of American diplomatic telegrams, largely dealing with commercial affairs. His claim that 'some [were] encrypted', however, is unsupported by any of the evidence he cites. Indeed, as will be shown below, every indication is that these telegrams had been sent by the State Department without having been encrypted.

The statement that they were 'all sent via circuitous routes' is misleading: telegraphic communications between the Central and Allied powers had been severed, and so telegrams between Washington and the American embassy in Berlin were usually and necessarily routed via the American embassy in Copenhagen, which then retransmitted them via underwater cables connecting neutral Denmark to Britain. (The 'only alternative' to using British cables to get around the Western Front communications blackout was a single French cable between Denmark and Calais, 'which was interrupted for long periods'.)<sup>24</sup>

<sup>&</sup>lt;sup>18</sup> US State Department, Papers Relating to the Foreign Relations of the United States, 1916 Supplement: The World War (Washington: Government Printing Office 1929) pp.253, 260, 266.

<sup>&</sup>lt;sup>19</sup> US State Department, Papers Relating to the Foreign Relations of the United States, 1915 Supplement: The World War (Washington: Government Printing Office 1928) [henceforth FRUS 1915] pp.942-943.

<sup>&</sup>lt;sup>20</sup> NA ADM 137/2736, ADM 137/2736, Appendix to Twentieth Report.

<sup>&</sup>lt;sup>21</sup> Lambert, *Planning Armageddon*, pp.263-264.

<sup>&</sup>lt;sup>22</sup> Lambert, *Planning Armageddon*, p.424.

<sup>&</sup>lt;sup>23</sup> Churchill College Cambridge Archive Centre, HALL 3/6, Draft 'D', Chapter 25, Hall unpublished autobiography; NA ADM 223/773, 'Political Branch of Room 40' Memorandum; Gannon, *Inside Room 40*, ch.10; Beesley, *Room 40*, ch.8.

<sup>&</sup>lt;sup>24</sup> National Archives Canada, Record Group 25 f8, Volume 1073, File #81, [U.K.] Report on Cable Censorship during the Great War (1914-1919), p.10; see, for example, NARA, Record Group 59, State Department Decimal File 1910-1929, 763.72119/172, Egan to State Department, 25 September 1916. See also Jonathan Winkler, 'Information Warfare in World War I', *Journal of Military History* 73/3 (2009) pp.845-867; Jonathan Winkler, *Nexus*:

Most importantly, all of the internal evidence in the documents he cites clearly points to the intercepted telegrams having been sent without any encryption. While it may seem surprising from some of the telegrams' contents that they were not encoded, the intercepts he cites come either from the chief censor's office or directly from the individual censor's offices at the various cable stations across the country. None shows any sign of having originated from MI1(b). These censor's offices certainly had no meaningful decryption capabilities and it seems unlikely to the point of absurdity that MI1(b) would have had any reason to be supplying the chief censor, of all people, with copies of its decrypts—let alone individual censor's offices. The censors were responsible for providing MI1(b) with copies of the encrypted diplomatic communications; MI1(b) had no reason to then return them after having decrypted them, and there was even less reason then for the documents to be distributed to the rest of the government from the censorship apparatus. Rather, the fact that they came directly from the censors is in fact clear evidence that the telegrams had been sent unencrypted. Additionally, the intercepts in the files that Lambert cites are formatted entirely differently from those documents known to be U.S. decrypts, and they were also widely distributed within the British government, which would have been unusual for documents of a highly secret nature.<sup>25</sup>

Though this internal evidence is sufficient to reject Lambert's claims, additional confirmation that these telegrams were not encrypted can be had as a pair of the intercepts in the files that Lambert points to are included in the published *Foreign Relations of the United States* series. Readily locatable in the U.S. National Archives, in one case, there is no information provided about its code of transmission<sup>26</sup>—an unusual omission that provides no indication that the telegram was encoded—while in the other, the telegram is clearly marked as having been sent 'plain' (i.e. *en clair*).<sup>27</sup> Finally, Lambert points to a typed memorandum from May 1915 in these files, of unknown authorship, that reads, 'it is evident from several telegrams that have been intercepted between Mr. Bryan and Mr. Page that America is about to make a strong protest against the detention of cotton ships', which he uses to support his assertion. There is no indication that this refers to decrypts from MI1(b) not present in the file, and the virtually certain explanation is that it refers to telegrams sent *en clair* that gave this indication.<sup>28</sup>

## SOLVING THE U.S. DIPLOMATIC CODEBOOKS

Setting these two mistaken claims aside, reliable evidence about MI1(b)'s diplomatic decryption efforts in 1915 is sparse. Much of what little documentation that exists was touched on briefly by

Strategic Communications and American Security in World War I (Cambridge: Harvard University Press 2008); Daniel Headrick, The Invisible Weapon: Telecommunications and International Politics, 1851-1945 (Oxford: Oxford University Press 1991) chs.8-9.

<sup>&</sup>lt;sup>25</sup> NA ADM 137/2736, ADM 137/2988, Appendix to Twentieth Report, WO 106/6072, HW 7/17. See also note immediately previous.

<sup>&</sup>lt;sup>26</sup> NARA Record Group 59, State Department Decimal File 1910-1929, 763.72112/1615, Page to Lansing, Telegram 2852, 23 September 1915; *FRUS 1915*, p.238; Intercept in NA ADM 137/2736, Kew. I am grateful to NARA archivist David Langbart for looking this up for me.

<sup>&</sup>lt;sup>27</sup> NARA Record Group 59, State Department Decimal File 1910-1929, 763.72112/1560a, Bryan to Page, Telegram 1665, 7 June 1915; FRUS 1915, pp.225-226; Intercept in NA ADM 137/2736. I am grateful to NARA archivist David Langbart for looking this up for me.

<sup>&</sup>lt;sup>28</sup> NA ADM 137/2736, America and the Blockade.

Peter Freeman in his 2008 article on MI1(b), but Freeman inaccurately claimed that 'no decrypts of American telegrams from 1915 have survived', and he made no attempt to date the beginning of British breaking of American codes.<sup>29</sup> The emergence of a single 1915 decrypt, the one of American telegram from 25 September 1915, as well as a more thorough analysis of the other evidence, provides us a number of important clues that allow us to point more clearly to the autumn of 1915 rather than earlier in the year.<sup>30</sup>

According to the official history of MI1(b), efforts to compile the three U.S. diplomatic codes began sometime 'early in 1915'. Before then, the 'early work of this section was confined entirely to enemy wireless'. As the front became static and the Germans replaced their army wireless communications with telegraph wires, however, the work that had consumed MI1(b) since the group's formation 'practically dried up'. The group lost its original raison d'être, and it was unable 'to occupy fully the time of the sub-section' with 'miscellaneous work, for Scotland Yard, the various prisoner of war messages that reached this country in cipher, etc'. The codebreaking group 'accordingly turned their attention to the great volume of diplomatic code messages sent by cable routes which, owing to the censorship, were now for the first time accessible', beginning with those of the United States.

Even with the weakness of American codes, the official history makes clear that the efforts to solve them were slow going: 'The work was entirely fresh to all members of the staff, there were no past records as guidance, and the problem of how to solve large code books had to be thought out ab initio.' Nor could the group focus solely on neutral codes: 'the work of the section [now] fell into two main divisions: the original work of dealing with purely enemy messages: and this new undertaking'. <sup>31</sup> These difficulties were compounded by the fact that the unit remained almost incomprehensibly small, with the group having expanded to only eight people by January 1916. <sup>32</sup>

Precisely when the group finished solving American codes is unclear, but it appears to have been completed sometime between 25 September 1915 and January 1916. The first known decrypt of an encoded U.S. diplomatic telegram is that of the one dated 25 September 1915, surviving in that small War Office cache of decrypts mentioned above.<sup>33</sup> The American original shows that the telegram was transmitted in 'the secretary's private code', a cipher variant of the Green Code. While largely readable, this decrypt contains a surprising number of omissions. The telegram had not been garbled in transmission—the State Department received it without difficulty—so the Green Code must have remained incompletely solved by this point.<sup>34</sup> The next decrypts that survive are not dated until late January 1916, and their fullness and accuracy make clear that

<sup>&</sup>lt;sup>29</sup> Freeman, 'MI1(b)', pp.210-211.

<sup>&</sup>lt;sup>30</sup> NA WO 106/6072, London to Washington Decrypt, 25 September 1915.

<sup>&</sup>lt;sup>31</sup> NA HW 7/35, Official History of MI1(b).

<sup>&</sup>lt;sup>32</sup> NAM Esher Papers, Acc. 2006-11-57, Vol. I, Office Memorandum No. 825, 29 January 1916.

<sup>&</sup>lt;sup>33</sup> NA WO 106/6072, London to Washington Decrypt, 25 September 1915.

<sup>&</sup>lt;sup>34</sup> NARA Record Group 59, State Department Decimal File 1910-1929, Box 363, 051.62/174, Page to Lansing, 25 September 1915; FRUS 1915, pp.942-943.

whatever difficulties MI1(b) was having in September 1915, the codes were solved completely by the year's end.<sup>35</sup>

It is likely, of course, that given MI1(b)'s progress with the Green Code by late September 1915, similarly incomplete decrypts of American telegrams would have been available prior to that date. There is no reliable evidence, however, to be able to make any firm claims about their degree of completeness at any stage over summer 1915. Given the alphabetical nature of American codebooks, moreover, one observes that a codebreaker would tend to hit something of a tipping point in solving them—that is, when a majority of the code had been solved, the rest of it would tend to come quickly as the alphabetical gaps in the dictionary become ever smaller. As such, it seems reasonable to infer that that tipping point likely would have been reached only a relatively short time before that incomplete decrypt on 25 September was generated.

Of course, the possibility that the 25 September 1915 decrypt was not generated contemporaneously—that it was in fact decrypted weeks or even months subsequently—cannot be completely excluded. After all, the document does not contain a date of decryption, and so it is possible that the September date of the telegram may be misleading and that MI1(b) solved the codebook even later than this document would indicate. Yet the notion that MI1(b) came back to this decrypt at a later time seems unlikely. First, the decrypt is appended to an unencrypted intercept of a brief follow-up telegram sent on the same day from the American Ambassador in London to Washington, which enquired whether the decrypted telegram was decipherable. The longer it took MI1(b) to generate the decrypt, the likelier it seems that the two documents would have been separated, especially considering the scattershot contents of the file.<sup>36</sup> Second, given the decrypt's omissions and the "tipping point" nature of solving an alphabetical codebook, it is virtually certain there was only a relatively short interval during which the code was largely but incompletely solved. During this period, the codebreakers' highest priority would be on the most recent telegrams and puzzling out the rest of the code; going back to deal with significantly older messages could not be high on its list of concerns, especially considering the unit's shortage of staff. The decrypt was therefore most likely generated no more than a short time after the telegram was originally sent.

There is no clear evidence giving us any indication of MI1(b)'s 1915 progress with the Blue Code, but the only particularly important messages in 1915-1916 sent in the Blue Code were those of Colonel House when in Europe, that is, February to early June 1915, and January to March 1916. (The State Department had evidently decided that as House had no official government position, he could not be given the department's top code.) The Blue Code certainly had been solved by the time of House's January 1916 arrival, but there is no indication that it had been solved during his earlier mission, leaving us to conclude that it appears to have been solved at some point in the interim.<sup>37</sup> This indication is made more likely given evidence in a note by Malcolm Hay, who joined MI1(b) in December 1915 and became its head the following year. This note confirms that 'until the beginning of 1916 the work of the War Office

<sup>&</sup>lt;sup>35</sup> NA HW 7/17, WO 106/6072, London to Washington Decrypt, [23 January 1916]; Freeman, 'MI1(b)', pp.211, 226 n.34.

<sup>&</sup>lt;sup>36</sup> NA WO 106/6072, London to Washington Intercept, 25 September 1915.

<sup>&</sup>lt;sup>37</sup> Weber, 'State Department', pp.572-576; Yale University Library, House Papers, Edward House Diary, 25 January 1915; Larsen, 'British Intelligence'.

cryptographic section was limited to...reconstruction of the American Diplomatic codebooks'. The clear implication that the task of breaking the three American codes continued to consume MI1(b) for the final three months of 1915—most likely the Blue and Red codes, given that it had made so much progress on the Green code by September. It was not until 1916 that the group was able to turn its attentions to and solve the 'Greek, Swiss, and Spanish codebooks'—which they deciphered much more quickly, the section having been '[h]elped by the experience gained during 1915 in deciphering the American codebooks'. All available evidence, therefore, points to MI1(b) having solved the American codebooks over the late summer and autumn of 1915, and no evidence points to an earlier period.

## **CONCLUSION**

This research has attempted to demonstrate that *excluding* the possibility of an important intelligence dimension in a particular historical area can be just as helpful to firming up our understanding of it as uncovering one. Given the extent to which we remain fundamentally ignorant of how intelligence shaped the First World War, it is likely that further intelligence research will continue to up-end existing narratives and transform our understanding of the war, not least of all in Anglo-American relations. Yet especially given that the surviving evidence about intelligence is often so fragmentary, it is essential that such research proceed from firm foundations. For signals intelligence in Anglo-American relations in the First World War, those foundations exist only after autumn 1915.

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<sup>&</sup>lt;sup>38</sup> Freeman, 'MI1(b), pp.210-212.

<sup>&</sup>lt;sup>39</sup> NA HW 7/35, Official History of MI1(b); Freeman, 'MI1(b), p.212.