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"The Path to Freedom"? Transocean and German Wireless Telegraphy, 1914-1922

Heidi J. S. Evans*

Abstract: », Der Weg ins Freie"? Transocean und die deutsche drahtlose Telegraphie, 1914-1922«. This article examines the early years of Transocean, a news agency owned and run by the German government, and its use of wireless telegraphy from 1914 to 1922. This investigation of the infancy of wireless technology demonstrates that technology plays a constitutive role in defining news. The German government used the new possibilities innate in the medium of wireless to carve out their own sphere of operation in the seas and on continents where German telegraph news had never played a major role, in particular East Asia. Wireless telegraphy enabled the German government to circumvent the British communications blockade in World War I. Afterwards, Transocean's wireless transmissions to East Asia and ships en route caused an uproar in Britain disproportionate to its circulation. It was the Germans' innovative use of wireless telegraphy that other nations, particularly the British, found most disturbing, rather than the content of the reports themselves.

Keywords: wireless telegraphy, radio, news agency, Northcliffe, Schwedler, Transocean, maritime history, ocean history, World War I.

"The path to freedom" was how Wilhelm Schwedler assessed wireless technology's potential in 1922. He believed that wireless was causing a revolution in global communications, which would slowly allow Germany to regain a more powerful position in global media and, by extension, global politics. For him,

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^{*} Address all communications to: Heidi J. S. Evans, Harvard University, Robinson Hall, 35 Quincy Street, Cambridge, MA 02138, USA; e-mail: hevans@fas.harvard.edu. Many thanks to the participants at the Heidelberg conference on Telecommunications and Globalization, Roland Wenzlhuemer, the anonymous reader, Lilly and Gary Evans, Sonja Glaab and Michael Tworek for their comments and suggestions.

Wilhelm Schwedler, *Die Nachricht im Weltverkehr* (Berlin: Deutsche Verlagsgesellschaft für Politik und Geschichte, 1922), 128. The term "wireless telegraphy" refers to the early years of radio communication. Unlike radio, wireless telegraphy does not emit or transmit speech. It used Morse code to transmit messages through electromagnetic waves. The corresponding German term is *drahtloser Funkspruch*, with *Funkspruch* referring to the sparks (*Funke*) required for early wireless technology. We use the word wireless today in WLAN (Wireless Local Area Network), while in German, *Rundfunk* is still used to designate radio and often television as well. Thus presently, "wireless" tends to refer to methods of radio communication, while "radio" means the actual devices used to send and receive. In the early 1920s, the head of the German Post Office, Hans Bredow, wanted to fight against the infiltration of foreign words into German, such as "radio" and "broadcasting", though he was ultimately unsuccessful. Reich Radio Commission Meeting, January 23, 1924, BArch R3301/2098. 125.

² Schwedler, Die Nachricht im Weltverkehr, x.

wireless was a means to revive news as an object of trade capable of generating profits. Schwedler was chief editor of the German government-owned news agency, Transocean, from 1918 to his death in May 1936. Transocean had developed from a news agency founded in 1913 with the explicit purpose of spreading German news overseas. This became especially urgent after World War I, when the news agency cartel contract between Reuters, Agence Havas, Associated Press and the German Wolffs Telegraphisches Bureau (WTB) was renegotiated such that the WTB was only responsible for news within Germany's borders. After World War I, Schwedler was a key figure in government attempts to undermine this regulatory system of news control that had boxed Germany into its newly reduced boundaries.

Yet wireless telegraphy both did and didn't reflect Schwedler's ideas of news as an object of trade and powerful political tool. Rather than drawing its power from its profitability, for German wireless, at least, its greatest impact lay where it was free. It did not reinvigorate German news in areas where news via telegraph dominated. Wireless could broadcast to a number of receivers within a certain range, rather than point-to-point like the telegraph. This greatly influenced wireless' customer base and geographical impact. Wireless companies used the possibilities innate in the medium of radio to carve out their own sphere of operation in the seas and on continents where German telegraph news had never played a major role, in particular in South America and East Asia. In Asia, they especially resented the British for dominating the news market and believed that this situation had negative economic and political repercussions for Germany. During and after World War I, successive German governments attempted to redress what they saw as an unfair distribution of the global dissemination and collection of news. The main means they chose was wireless telegraphy with a news agency, Transocean, founded specifically for this purpose. As reactions to these developments will show, it was the Germans' innovative use of the technology of wireless telegraphy, which other nations, particularly the British, found most disturbing, rather than the content of the reports themselves.

Histories of news agencies have, quite correctly, emphasized the fundamental link between the spread of the telegraph and the foundation of news agencies in the mid-nineteenth century. The "Big Three" news agencies were all founded in this period: Agence Havas in 1835, the WTB in 1849, and Reuters in 1851.³ Technology created markets, as telegraph routes influenced journalists' bases and geographical foci; the astounding expansion of the telegraph in

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For agency histories, see Dieter Basse, Wolff's Telegraphisches Bureau 1849 bis 1933: Agenturpublizistik zwischen Politik und Wirtschaft (München and New York: K.G. Saur, 1991); Donald Read, The Power of News: The History of Reuters. 2nd ed. (Oxford and New York: Oxford University Press, 1999); Antoine Lefebure, Havas: Les arcanes du pouvoir (Paris: B. Grasset, 1992).

the mid-nineteenth century was essential for the global operations of the Big Three. Yet the importance of new technology for news agencies did not end with the telegraph. Wireless telegraphy and telephony also had a remarkable impact. As an investigation of the infancy of wireless demonstrates, technology plays a constitutive role in defining what news is and means. Conceptions of news are of course not static: they change depending upon the criteria for newsworthy items. These criteria in turn are largely determined by the political, economic and technological networks behind the transmission of reports. Particularly for Germany, wireless telegraphy provided a means to communicate with the wider world in World War I and thereafter, vastly changing how these messages were transmitted and thereby what they meant.

Even before the German government officially began to regulate the wireless industry in 1923, its civilian and military needs dictated much of wireless' development. Wireless formed an integral part of the German government's information warfare during World War I and the immediate postwar years. As Jonathan Reed Winkler points out, information warfare during World War I remains understudied, yet was an essential component of both Britain's and Germany's war strategies. Studies of German propaganda during World War I have mainly dealt with propaganda within Germany or regulation of the written press by the German government; historians of Weimar and Nazi Germany have focused on the use of radio as a mass medium mainly in connection with propaganda, artistic endeavours, domestic listening and political struggles over regulatory control. Meanwhile, historians of technology have concentrated on the history of the invention of radio in the 1890s and early 1900s. The link

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⁴ Jonathan Reed Winkler, "Information Warfare in World War I," *Journal of Military History* 73 (July 2009): 845-867.

⁵ E.g., Jürgen Wilke, Presseanweisungen im Zwanzigsten Jahrhundert: Erster Weltkrieg – Drittes Reich – DDR. (Köln: Böhlau Verlag, 2007); Jürgen Wilke, "Deutsche Auslandspropaganda im Ersten Weltkrieg: Die Zentralstelle für Auslandsdienst," in Pressepolitik und Propaganda. Historische Studien vom Vormärz bis zum Kalten Krieg, ed. Jürgen Wilke (Köln: Böhlau Verlag, 1997), 79-124; David Welch, Germany, Propaganda and Total War, 1914-1918: The Sins of Omission (London: Althone, 2000).

⁶ E.g., H. J. P. Bergmeier, Hitler's Airwaves: The Inside Story of Nazi Radio Broadcasting and Propaganda (New Haven: Yale University Press, 1997); Winfred Lerg, Rundfunkpolitik in der Weimarer Republik (München: Deutscher Taschenbuchverlag, 1980); Wilhelm Kreutz, "Rundfunk- und Filmpolitik im Preußen der Weimarer Republik," in Kommunikation und Medien in Preußen vom 16. bis zum 19. Jahrhundert, ed. Bernd Sösemann (Stuttgart: Steiner, 2002), 436-449; Daniel Gilfillan, Pieces of Sound: German Experimental Radio (Minneapolis: University of Minneapolis Press, 2009). According to Alastair Pinkerton and Klaus Dodds, this is the state of affairs for research on radio in general. Alastair Pinkerton and Klaus Dodds, "Radio Geopolitics: Broadcasting, Listening and the Need for Acoustic Spaces," Progress in Human Geography 33:1 (2009): 10-27.

See, for example, G. R. M. Garrett, *The Early History of Radio: From Faraday to Marconi* (London: Institution of Electrical Engineers in Association with the Science Museum, 1994).

between early invention and spoken medium is wireless' early method of transmission in Morse code to a limited audience; these early years of wireless before 1923 are relatively understudied. Use and invention are thus mostly examined in separate studies.

Yet, as David Edgerton has shown, use and innovation of technology are intricately linked, despite differences in geography, chronology and sociology. He postulates that, "invention and innovation rarely lead to use, but use often leads to invention and innovation." This is clearly the case with wireless technology and its use on the ocean. After its initial development by Guglielmo Marconi (1874-1937) and Ferdinand Braun (1850-1918) in the late 1890s, many felt that the dense continental telegraph system negated the need for wireless as another means of communication on land. 10 In Germany, the military was the first to see potential in wireless. The German Navy believed that wireless was far better suited to ships than land: it allowed them to coordinate manoeuvres and all 90 German warships were equipped with radios in 1909. To develop the technology further, the Navy used the privately-owned wireless company, Telefunken, which had been founded in 1903. 11 Telefunken developed wireless to become effective military technology from 1905 to 1908, and the quenched spark system emerged from these needs. 12 This system was Telefunken's great step forward: its implementation in 1909 increased the number of stations accessible at sea and thereby Telefunken's commercial success.

The scholarly exception to the rule is Michael Friedewald, who has written several studies on German wireless from 1897 to 1918, although he concentrates on wireless and ships. This still leaves a gap for 1918 to 1923.

David Edgerton, "From Innovation to Use: Ten Eclectic Theses on the Historiography of Technology," *History and Technology* 16:2 (1999), 123.

Marconi and Braun shared the 1909 Nobel Prize for Physics for "contributions to the development of wireless telegraphy." Marconi presented wireless telegraphy to the British public for the first time in 1897. Braun increased wireless' range and tuning accuracy with the crystal diode rectifier. The debate is still ongoing as to who really invented radio; many, such as Nikola Tesla, contributed to its development. For a detailed explanation of wireless technology, see Anton Huurdeman, The Worldwide History of Telecommunications (Hoboken, NJ: John Wiley & Sons Inc., 2003), 269 ff.

¹¹ For the early years of Telefunken, see Michael Friedewald, "Telefunken und deutsche Schiffe, 1903-1914," *Zeitschrift für Unternehmensgeschichte* 45-46 (2000-1), 27-57.

Michael Friedewald, Die "Tönenden Funken". Geschichte eines frühen drahtlosen Kommunikationssystems 1905-1914 (Berlin: Diepholz, 1999), 13.

Max Wien developed the quenched spark system (or spark gap transmission) in 1906; it is based on creating an electrical oscillation through electrical sparks. As this uses damped waves, information was transmitted in Morse code. Its main problem was the high levels of interference. See Michael Friedewald, "The Beginnings of Radio Communication in Germany, 1897-1918," *Journal of Radio Studies* 7:2 (2000): 448 ff. This system prevailed until the late 1920s; until the widespread introduction of short waves in Germany in 1929, Transocean generally broadcast using Morse code and the quenched spark system. It laid the groundwork for later systems, though in terms of technological development, Friedewald calls it a "cul-de-sac". *Die "Tönenden Funken*", 157.

Passenger ships became a key source of income, both for passenger messages and safety reasons. After the "Titanic conference" in London in November 1913, all ships with over 50 passengers had to install radio. The imperative of safety enabled Telefunken to break Marconi's monopoly: all ships were now legally obliged to be able to communicate with each other. Marconi's initial monopoly had been based on its stipulation that Marconi radios could only communicate with each other. By 1914, the monopoly of Marconi had developed into a market on the sea controlled by Telefunken and Marconi. ¹⁴ Marconi and Telefunken also cooperated, founding a joint operating company, Deutsche Betriebsgesellschaft für drahtlose Telegraphie (DEBEG) in 1911. 15 The sea had thus presented Telefunken with its chance both to change existing telecommunications relations between Britain and Germany and to stamp its mark on the future development of radio. This pre-war competition between Telefunken and Marconi illustrated the importance of the sea in setting a precedent for wireless regulation and control of markets.

In fact, Telefunken was "the main driving force in the development of wireless technology in Germany" until 1918. 16 Its close relationship to various government figures ensured that the German government considered it a reliable partner in using technology to achieve political aims. Aside from naval purposes, the German government initially saw wireless technology as a means to reach its colonies in East and South-West Africa without using Great Britain's "All Red Line" of telegraph connections around the world. To Given their imperial rivalries, Germany increasingly wished to circumvent British routes by laying their own cables and by promoting wireless technology. 18 Wireless also provided a means to subvert the existing cartel of news agencies, both during and after World War I. 19 Under the cartel prior to World War I, the

¹⁴ See W. J. Baker, "The Commercial War with Germany," in History of the Marconi Com-

pany, 1874-1965 (Abingdon: Routledge, 1970), 129-136.

The two agree to exchange patents in 1912. By October 1912, Marconi owned 726 ship stations, Telefunken 534. Only 294 stations were not controlled by these two companies. Hansard, October 11, 1912, col. 680.

Friedewald, "The Beginnings of Radio Communication in Germany, 1897-1918," 459.

^{17 &}quot;All Red Line" was the informal name for Britain's continuous set of cables around the world. The last section in the Pacific Ocean was completed in 1902. The most important work on international cable cooperation and later rivalry remains Daniel Headrick, The Invisible Weapon: Telecommunications and International Politics, 1851-1945 (New York: Oxford University Press, 1991).

¹⁸ For more details, see Reinhard Klein-Arendt, Kamina ruft Nauen! Die Funkstellen in den deutschen Kolonien 1904-1918 (Köln: W. Herbst, 1996). For the Anglo-German press rivalry, see Dominik Geppert, Pressekriege: Öffentlichkeit und Diplomatie in den deutschbritischen Beziehungen (1896-1912) (München: Oldenbourg, 2007).

The Big Three news agencies operated a formal global cartel on news from 1870 to 1933, whereby they divided the global supply of news between them. Each agency reported on its assigned sphere and exchanged this news with the other two. The American Associated Press (AP) became a signatory on cartel contracts in 1900. The cartel ended in 1933/34

WTB was responsible for Germany, its colonies, the Austro-Hungarian Empire, Scandinavia and Russia. After World War I, however, a new contract was renegotiated whereby the WTB only supplied Germany; this provided added incentive for Weimar governments to use wireless to circumvent these restrictions.

Even prior to World War I, many Germans thought that the cartel arrangement was detrimental to Germany's image abroad. In 1913, the Bund der Industriellen (Association of Industrialists) complained about the "one-sided influencing of foreign press by certain French and English news agencies."21 Conversely, the Verein Deutscher Zeitungsverleger (Organization of German Newspaper Publishers) declared in 1912 that the cartel arrangement forced the WTB to deliver anti-German material to German newspapers.²² Otto Hammann, the head of the German press department since 1894, had long shared these sentiments. In 1908, Hammann had headed the Transatlantisches Büro (Transatlantic Bureau), newly founded by the German Foreign Ministry to subvert the influence of the cartel abroad. The Bureau mainly operated in South America and Australia and formed the basis of the Syndikat Deutscher Überseedienst (German Overseas Service Syndicate) in 1913.23 The syndicate professed to have three aims: to subvert the cartel, promote trade and influence neutral countries.24 Hammann chose to exclude the press and included around 300 industrialists in the syndicate, whom he considered indispensable for two reasons.²⁵ Firstly, they had money. Secondly, this close connection with industry would increase the syndicate's trustworthiness and thus efficacy abroad by erasing the trace of officialdom.²⁶

when the AP forced Reuters to abandon these arrangements and the Nazis merged the WTB and Alfred Hugenberg's Telegraphen Union to create the *Deutsches Nachrichtenbüro*.

Within its sphere, the WTB negotiated contracts of news exchange with particular national and imperial news agencies. Its cooperation with these agencies stifled competition within those countries, as other news agencies had far less access to foreign news. Terhi Rantanen calls this the "bi-directional dependency" of global agencies, which were always dependent on news supply from smaller agencies within their spheres. Terhi Rantanen, "The Struggle for Control of Domestic News Markets," in *The Globalization of News*, eds. Oliver Boyd-Barrett and Terhi Rantanen (London: Sage Publications, 1998), 35-48.

²¹ Quoted in Rudolf Rotheit, Die Friedensbedingungen der deutschen Presse. Los von Reuter und Havas! (Berlin: Puttkammer & Mühlbrecht, 1915), 13.

²² Ibid., 14.

²³ Messages sent by the syndicate were labeled "Transocean", hence the later name for the government agency, the registered company and its publications.

²⁴ Syndikat Deutscher Überseedienst, Grundlagen und Ziele des Deutschen Überseedienstes (Berlin: Transocean GmbH, 1915), 5.

²⁵ These men came from four major economic sectors: banking, shipping, trade and heavy industry.

²⁶ Cornelius Klee, "Die Transocean GmbH," in *Telegraphenbüros und Nachrichtenagenturen in Deutschland: Untersuchungen zu ihrer Geschichte bis 1949*, ed. Jürgen Wilke (München and New York: K. G. Saur, 1991), 138-9.

The syndicate's aims and responsibility changed radically with the outbreak of World War I. The German government relied on wireless and the Nauen, Eilvese and Königswusterhausen transmitter stations after British cable steamers cut five of Germany's transatlantic and undersea cables to Spain, America and the German colonies at the start of World War I and forced the Portuguese to forbid Germany from using its only remaining cable to America via the Azores in December 1914.²⁷ The registration of a limited company followed in September 1915, while the syndicate continued to operate to attract new members. The syndicate's working party met regularly in Berlin's prestigious Hotel Adlon and included such well-known figures as the industrialist and future media magnate, Alfred Hugenberg (1865-1951), the future chancellor and foreign minister, Gustav Stresemann (1878-1929), the future president of the Reichsbank and Nazi economic minister from 1934-1937, Hjalmar Schacht (1877-1970), and the industrialist and politician Hugo Stinnes (1870-1924).²⁸

Yet the government and the industrialists were unable to cooperate for long and by mid-1916 the syndicate had split.²⁹ The two groups could not reconcile their differences on war aims nor agree upon how to handle incoming news. While the government had wished to make the news available to all interested parties as a general newspaper service, the industrialists had hoped to gain a market advantage through receiving exclusive information. Two companies emerged: Deutscher Überseedienst and Transocean. While the members of both companies remained the same, industrialists generally paid little attention to Transocean thereafter.³⁰ The industrialists maintained Deutscher Überseedienst GmbH (German Overseas Service) as a service for exclusive subscribers; it principally reported on foreign economic news. Meanwhile, the government ran and subsidized Transocean GmbH to deliver news overseas and support German foreign policy. The German Chancellor was to appoint the head of its advisory committee.³¹ Theobald von Bethmann-Hollweg (1856-1921), Chancellor in 1916, chose Otto Hammann, who resigned from his post as head of the press department to concentrate on Transocean full time. Transocean attempted

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Nauen's trial service began in 1906 and its operator, Transradio AG, handed it over to the German army and navy for use throughout the war, along with the transmitter stations Eilvese and Königswusterhausen. Nauen was extended a few times between 1908 and 1916 and finally "represented the prototype of a long-wave station with quenched spark transmitter and high frequency alternators with a power of 100 kW or 250 kW respectively." Michael Friedewald, "The Beginnings of Radio Communication in Germany, 1897-1918", 457.

²⁸ For more information on the history of Transocean, see Klee, "Die Transocean GmbH", 135-211.

²⁹ Alfred Hugenberg had advocated for separating the costs for economic and political news since at least May 1915. BArch R901/57866, 76.

³⁰ Klee, "Die Transocean GmbH," 152.

³¹ Five representatives from each of the four major economic sectors and five from the major political parties made up the advisory committee.

throughout the war to integrate with the cartel member, the WTB, but only reached a cooperative agreement in April 1918. This allowed Transocean to disseminate WTB materials overseas for an annual fee of 10,000 Marks. Transocean agreed to leave commercial services to the WTB, meaning that Transocean would remain government-subsidized and controlled after World War I.³²

Even during World War I, Transocean had become "de facto a branch of the foreign ministry," with its editors working in the foreign ministry building in Berlin.³³ Transocean's working committee was guided by the belief that no news agency could exist without the foreign ministry if it wanted to disseminate its news abroad.³⁴ The foreign ministry's diplomatic network was essential for collection and distribution of news to South America and East Asia. Transocean relied upon consular officials and engineers, along with volunteers (of which there were 14 by May 1915), paid employees such as journalists and occasional reporters such as travellers.³⁵ Transocean also received news and pictures from various government departments engaged in propaganda activities, such as the Zentralstelle für Auslandsdienst (Central Department for Foreign Service), the war press department and government press conferences.³⁶ For instance, Transocean cooperated with the Zentralstelle für Auslandsdienst for its photo books, The Great War in Pictures. The structure of the German government's press departments was initially somewhat chaotic; the creation of a war press department in October 1915 under Major Erhard Deutelmoser only partially regulated these difficulties. These overlapping competencies made implementation of coordinated news and propaganda efforts and coherent reporting rather difficult.37

Transocean news was disseminated in European countries allied with Germany but it mainly focused on the Americas and East Asia.³⁸ In 1914, Nauen

³⁴ Working Committee Meeting, May 28, 1915, BArch R901/57866, 75.

³² Klee, "Die Transocean GmbH," 158.

³³ Ibid., 155.

³⁵ Ibid., 98-9.

The ZfA dealt mainly with periodicals, pictures, films, pamphlets and other means of disseminating propaganda such as talks, concerts. For more detail, see Wilke, "Deutsche Auslandspropaganda im Ersten Weltkrieg: Die Zentralstelle für Auslandsdienst," 79-124; Wilke, *Presseanweisungen im zwanzigsten Jahrhundert. Erster Weltkrieg– Drittes Reich–DDR*; and Welch, *Germany, Propaganda and Total War 1914-1918: the Sins of Omission.* Transocean was however the only agency sending out news via wireless overseas.

³⁷ See Martin Creuz, Die Pressepolitik der kaiserlichen Regierung während des Ersten Weltkriegs: Die Exekutive, die Journalisten und der Teufelskreis der Berichterstattung (Frankfurt am Main and New York: P. Lang, 1996) and Kurt Koszyk, Deutsche Pressepolitik im Ersten Weltkrieg (Düsseldorf: Droste, 1968).

The WTB ran a wireless service to its part of the globe under the cartel contract, supplying Europe, Baghdad, German East Africa, the Azores and Tenerife with a service from Nauen at 1 a.m. The WTB also sent out a joint service with the German Navy of 200 words twice a day, at 11 p.m. and 7 a.m., from a station in Norddeich, Schleswig-Holstein. The service

was the only European station capable of transmitting waves to North America, specifically to stations in Sayville, New York and Tuckerton, New Jersey.³⁹ As Tuckerton was more suited to sending messages, the Germans generally used Sayville as the receiving station for messages in Europe. 40 Nauen transmitted news to Sayville at least twice a day. 41 Under the supervision of the American Navy, who had placed men in each station in August 1914 to ensure neutrality and enforce the law forbidding the Germans to communicate with ships, the clerks at Sayville disseminated the news via telegraph to the three main American news agencies: Associated Press, United Press and International News Service. The news agencies paid for these telegrams; in October 1916, Transocean's news reached approximately 2000 American newspapers. 42 Transocean news was spread to South America from the US via a complicated network of cables in neutral countries in Central America such as Guatemala. By October 1914, the British had destroyed German wireless stations on the strategically important island of Yap and in Africa, leaving the Germans with wireless routes within Europe and to the United States.⁴³ The news was thus cabled to Asia via San Francisco and Guam to Manila and Shanghai, By May 1915, Transocean cabled 25,000 words monthly, approximately as much as Reuters. From August 1915, a new wireless connection between Funabashi near Yokohama and the Hawaiian islands enabled wireless transmission of Transocean news between Japan and the United States. 45 Telegrams were then cabled to Siam from the Swatow station in South China. 46 Once the US officially de-

was limited, as Norddeich was close to the Navy's ships, meaning ships could not radio while the waves were being used for news. The Navy didn't rate this service as influential on the press in neutral Europe, especially as wireless was not quicker within Europe. Holland and Scandinavia, for example, received news more swiftly by telegraph than wireless. Letter from Reichsmarineamt to the state secretary of the foreign ministry, October 13, 1915, BArch R901/57866, 300. Thus in terms of wireless news, Transocean's overseas service was more important.

The German radio company, Telefunken, had bought the two sites to construct radio towers in 1912. There was a direct connection between Sayville and Nauen from 1914 onwards when transmission power was increased to 100 kW. Tuckerton was open for two-way transmission in May 1914 and by May 1916 its signals could be picked up 9000 miles away in Sydney, the world record for that time.

⁴⁰ See Roy M. Nunn, "The Goldschmidt Wireless of Tuckerton, New Jersey" (bachelor's thesis, Albright College, 1967). Tuckerton generally communicated with the radio station in Eilvese, near Hanover once this was possible.

In November 1915, it cost 2 marks 10 pfennigs per word from Nauen to the United States. BArch R901/57866, 427.

⁴² BArch R901/57869, 60.

⁴³ Winkler, "Information Warfare in World War I," 849ff.

⁴⁴ August 3, 1915, Mitteilungen der Transocean, Nr. 2, 1.

⁴⁵ August 26, 1915, Mitteilungen der Transocean, Nr. 3, 2. There had been a wireless connection between California and Hawaii since September 1914.

46 Schwedler later saw this as proof of great interest in Asia in German news. Schwedler, *Die Nachricht im Weltverkehr*, 82.

clared war on Germany on April 6, 1917, the first hostile act between the two countries was the US Marines' seizure of the Sayville receiving station. By this time, however, Nauen's range of over 11,000 km meant that Sayville was no longer necessary to transmit radio signals to Asia.⁴⁷

Transocean's service became highly regarded in the Far East because of its integration of cable and wireless, according to Wilhelm Schwedler. As In its own news reports in August 1915, Transocean's success in East Asia was attributed to two reasons. Firstly, it had gained a foothold in the region before the outbreak of war with two German-language newspapers: Ostasiatischer Lloyd, founded 1900, and the Deutsche Japan-Post. Secondly, Carl Fink, the chief editor of Ostasiatischer Lloyd, and Wilhelm Schwedler had developed an organization that circumvented the British communications blockade through the combination of wireless and cable described above. Transocean's dissemination of photo books, called Der Große Krieg in Bildern (The Great War in Pictures) further raised the profile of German news. Carl Fink of Ostasiatischer Lloyd wrote of the first Great War in Pictures that he found this type of propaganda "extraordinarily fortunate" and that he had in fact translated the accompanying text into Chinese at his own cost. So

Correspondence about the success of wireless transmission by Transocean happened at the highest levels of government. From January 1916, the German ambassador in Washington from 1908 to 1917, Johann Heinrich von Bernstorff (1862-1939), sent fortnightly reports to Bethmann-Hollweg, detailing which radiograms were being received. From mid-1916, the German embassy in Washington DC served as an intermediary between Sayville and the American news agencies, as Bernstorff believed that the addition of American news would increase the effectiveness of the service. Messages sent from Sayville and Tuckerton to the German embassy were treated as prepaid messages, and thus not given the press rate. This greatly increased the cost of the service in America.

⁴⁷ See George Pickworth, "Germany's Imperial Wireless System," *Electronics World + Wireless World* (May 1993): 427-432.

⁴⁸ Schwedler, Die Nachricht im Weltverkehr, 80.

⁴⁹ August 3, 1915, Mitteilungen der Transocean, Nr. 2, 1.

Letter to Ludwig Asch, March 17, 1915, BArch R901/57866. The *Great War in Pictures* appeared monthly with approximately 50 pictures and a print run of 65,000. Each print run included editions with captions in almost every European language. After April 1916, 20,000 more copies were printed and distributed in the Middle East with captions in Turkish. Urdu and Persian.

⁵¹ The first letter I have found is dated January 10, 1916. BArch R901/57868, 15. This continued until Germany withdrew its ambassadorial staff from America in 1917.

⁵² In a letter to Bethmann-Hollweg on April 3, 1916, Bernstorff suggested that the WTB representative in New York, Herr Klaeßig, should add US news. BArch R901/57868, 322.

⁵³ BArch R901/57867, 124.

In America itself, Transocean's name was rarely mentioned. Many American papers published Transocean news, while labelling it as the "Overseas News Agency" or "Berlin (date) by wireless to Sayville" instead. ⁵⁴ These newspapers included the *New York Times, Chicago Herald, Chicago Daily Tribune* and *New York Herald*. ⁵⁵ In September 1914, the *New York Herald* had stated that it would not print messages from Sayville, claiming that they were invented stories. In October 1915, however, Bernstorff reported that many papers did print Transocean's news, although much of the public still thought that the news was made up. Even the *New York Herald* itself had taken to printing Transocean news as it often contained reports not allowed by the English press. ⁵⁶ Bernstorff concluded from this that wireless telegraphy had lessened the might of English censorship of telegrams, as Berlin correspondents from American newspapers could now use cables almost without restrictions. ⁵⁷

Despite such successes, there were many problems with the service. Technologically, Nauen and Sayville were still greatly affected by atmospheric disturbances, especially in early summer. Thus even more than ten percent of transmissions did not reach their intended destinations. Another difficulty was the timing of transmissions. They would often reach the respective country or newspaper as morning or evening papers were already going to bed. This negated the temporal advantage of wireless. Economically, Transocean was greatly disadvantaged by its split from the syndicate in 1915. Even before the industrialists had jumped ship, Transocean was greatly underfunded. Appeals for more funds are a common thread running through much correspondence between Transocean representatives and the German government.

As regards the content of the news itself, a major stumbling block for Transocean was its use of an omnibus service. The news sent from Nauen to Sayville was the news that reached Shanghai and Manila. One size most certainly did not fit all. While the Americans found the news to be too propagandistic, the East Asians felt that it was too American. A report on the reception of Transocean news in Asia stated that the service needed to avoid "its constant know-it-all tone, which was characteristic for Transocean's service [to China] up to now." It underlined the need to report "factually" and without simply omitting unpleasant news. An assessment of American opinion on Transocean's news concluded that Americans often found the news to be colourless or too polemical. Items were often outdated, especially when they were ex-

 $^{\rm 54}$ Other names included: "thousand-word service" and "the German wireless".

⁵⁵ December 6, 1915, BArch R901/5867, 44.

⁵⁶ Bernstorff to Bethmann-Hollweg, October 26, 1915, BArch R901/57866, 400ff.

⁵⁷ Ibid., 401.

⁵⁸ Syndikat Deutscher Überseedienst, Grundlagen und Ziele des Deutschen Überseedienstes, 5.

⁵⁹ BArch R901/57867, 86.

⁶⁰ Führ to Otto Hammann, March 23, 1917, BArch R901/57659, 12ff.

tracts from the London and Paris press, as these would have been transmitted by cable the day before. Other items were irrelevant for Transocean's target audience, like birthdays of important Germans and local Berlin news such as the fact that there was a Fürstenzimmer (waiting room for nobility) in the new railway station of Friedrichstraße in Berlin, but no smoking room. 61 Transocean sometimes played it too safe, reporting economic news reports long after other agencies. For example, dividends were only published once the general assembly approved them, not when it had published suggestions weeks before. 62 As swift economic news was where much of the money and interest lay, this was a serious disadvantage. Bernstorff proposed that fewer items be reported, but in greater depth. Furthermore, he suggested that Transocean establish contact with American journalists who could act as advisors and report on which items were published in New York papers. He also warned heavily against including prophesies on the future course of the war in news reports. These were often printed, he wrote, yet seldom corresponded with reality, damaging German interests and perceived trustworthiness.⁶³

German wireless communication networks during World War I were "ambitious, but ultimately unsuccessful", according to Jonathan Reed Winkler.64 Certainly, the service was plagued by problems of all types and it failed to alter significantly perceptions of German war aims and actions abroad. Yet some of its achievements were remarkable. By the end of World War I, Nauen's range had increased to 18,000 km; Transocean's overseas service could be received in English around the world. Transocean's basic infrastructure of cover agencies and its personnel structure were in place, as was its commitment to ambitious dissemination of its news to East Asia and South America. Its top management and editors remained. Most importantly, Schwedler remained chief editor from 1918 until 1936 and Stresemann, for example, remained on the board until he became German chancellor.

Furthermore, the Allies realised the importance of Transocean's use of wireless technology and wanted to weaken its ability to influence neutral countries. Article 197 of the Versailles Treaty forbade Germany from sending political news from Nauen, Hanover (Eilvese station) and Berlin (Königswusterhausen)

These Berlin items probably came from Transocean's main non-governmental news source. Dr. Haas, chief editor of Transocean from its inception to 1918, had agreed with various Berlin newspapers in October 1915 that either he or a representative would stop by the editors' office to review their telegrams and determine if any were of use for Transocean. The Berliner Lokalanzeiger, for example, wished to be paid 150 Marks per month for their services. Hence any popular interest story was likely to betray its origins in a local Berlin newspaper. Letter on April 3, 1916, BArch R901/57868, 164.

⁶² Bernstorff to Bethmann-Hollweg, October 26, 1915, BArch R901/57866, 402.

⁶³ Ibid., 403f.

⁶⁴ Winkler, "Information Warfare in World War I," 853.

for three months after the treaty went into effect.⁶⁵ The German foreign ministry interpreted the clause extremely literally, enabling Transocean to continue to broadcast from Norddeich, which had not been mentioned in Article 197. Yet this was not the end of Allied suspicion of German capabilities to use and abuse wireless to disseminate propaganda.

In late 1921, Alfred Lord Northcliffe (1865-1922) travelled by ship to Asia. A press baron in the mould of William Randolph Hearst and Alfred Hugenberg, Northcliffe had worked his way up from freelance journalism to owning a media empire. He founded the Daily Mail in 1896, the Daily Mirror seven years later and bought and reinvigorated the ailing Times in 1908. Northcliffe produced immensely successful daily papers through a combination of innovative features, such as social gossip and women's columns. During World War I, Northcliffe turned down Lloyd George's offer to run the air ministry and instead served as the government's Director for Propaganda from 1917 until armistice. Not one to mince words, Lord Northcliffe exerted great influence on Lloyd George during the negotiations at Versailles by demanding that Germany should cover the whole cost of the war, rather than what was within its capacity to pay. 66 His opinions were certainly taken very seriously by both those in high places and ordinary newspaper buyers. Indeed, his pronouncements on the state of news in East Asia sparked a series of articles and investigations leading all the way to the House of Commons.

Lord Northcliffe's journey to East Asia had been filled with news. On the British ship, P&O Nellore, the radio operators had been receiving Transocean's news from Nauen, rather than any British wireless station. Since its inception, German wireless had focused on sea-farers of all types as its ideal customer base and Transocean had built upon previous German experience in deciding to offer its wireless service to ships for free. British radio services, on the other hand, had to be paid for. For the P&O Nellore, as many other ships, a free thrice daily 500-word service in English was clearly appealing as an added extra for passengers.⁶⁷

⁶⁵ The exact wording was: "During the three months following the coming into force of the present Treaty the German high-power wireless telegraphy stations at Nauen, Hanover and Berlin shall not be used for the transmission of messages concerning naval, military or political questions of interest to Germany or any State which has been allied to Germany in the war, without the assent of the Governments of the Principal Allied and Associated Powers. These stations may be used for commercial purposes, but only under the supervision of the said Governments, who will decide the wavelength to be used. During the same period Germany shall not build any more high-power wireless telegraphy stations in her own territory or that of Austria, Hungary, Bulgaria or Turkey." The Treaty was signed on June 28, 1919.

Anthony Lentin, Guilt at Versailles: Lloyd George and the Pre-History of Appeasement (London: Routledge, 1985), chapter 1.

In addition to this omnibus, there were one French and one German service daily.

Lord Northcliffe did not think the same. Upon landing in Colombo, Ceylon on 2 January, 1922, Lord Northcliffe said to a *Times* correspondent:

Germany may not have money for reparations but she is expending immense resources in propaganda in the Far East by daily wireless from Berlin, by subsidized newspapers and by film. I have seen the German wireless daily including that tapped by the operators of the P. and O. Nellore during the present voyage. It consists largely of misleading statements, and actual lies, about Egypt, India, the Washington Conference, Ireland, Japan, China, the responsibility for the Great War, and the gloomy condition of British trade. The wireless is sent out seven days a week, and is hungrily absorbed by vernacular writers in all Far Eastern countries, where countless wireless stations now exist. I was a close student of the notorious Berlin wireless during the war, and believe that the same minds are writing the present mischievous dispatches. ⁶⁸

Northcliffe continued by stating that German propaganda today was just as dangerous as it had been during the war because of political upheaval in the Far East and that apart from half a dozen well-known British newspapers, the Far Eastern press was becoming increasingly hostile towards the British. ⁶⁹ His views were printed in articles in the *Times* and *Daily Mail* the very next day.

Northcliffe's opinions provide us with three main points about his reactions to wireless. Firstly, Northcliffe extrapolated from news on one ship to the entire Far East and no subsequent article in Britain ever contradicted this logic. In fact, it appears that only around 25 Chinese newspapers subscribed to the service, with one or two Transocean articles published a day. Secondly, Northcliffe believed the service to be fully funded by the German government and took it as proof that the Germans were not really in such dire financial straits. Reparations were an issue particularly close to Northcliffe's heart: his harsh stand on the matter had forced Lloyd George's hand at the Versailles negotiations. As regards the funding of Transocean, he was of course correct, though his conclusion following from that fact is disputable.

Thirdly, Northcliffe emphasized the continuity between World War I and the present in German journalism and its personnel. The personnel was indeed mostly composed of the same individuals: for example, Wilhelm Schwedler remained chief editor of Transocean from 1918 until his death in 1936 and Otto Hammann remained head of the advisory committee until 1924. That did not necessarily entail the same attitudes to news. Transocean had moved out of the foreign ministry's building in November 1918 and this spatial change accompanied a somewhat different attitude to reporting. In his 1922 book on news, Schwedler pleaded for an end to the "stain" of propaganda as conducted during the war and advocated a move to "truthful publishing." Schwedler's truth did

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⁶⁸ "Far East Dangers; Incessant German Propaganda; Lord Northcliffe's Warning," *The Times*, January 3, 1922.

⁶⁹ Ibid.

⁷⁰ Schwedler, Die Nachricht im Weltverkehr, viii.

not mean objective reporting, however. In his report on Northcliffe's attacks on Transocean, Schwedler declared that Transocean's reports were most certainly not propaganda, but rather that they attempted to find the golden mean between simply reporting facts and serving political purposes. Schwedler's truth did not mean that Transocean sat on the political fence.

The *Times* took Northcliffe's accusations particularly seriously, undertaking its own investigations into his claims of bad and biased journalism. The paper printed a series of articles dealing with Transocean over the coming weeks. Its Berlin correspondent wrote an article claiming that Transocean's main goals were to portray Germany as peaceful and suffering due to Allied demands and to "induce the world to change the opinion formed of Germany during the war." Another article that same day reported that the *Englishman* was agitating for Northcliffe to create a coalition between the British Empire's governments and trading firms to prevent German propaganda from ruining their business. The serious propaganda from ruining their business.

The *Times* then investigated Lord Northcliffe's condemnation of Transocean's news as inaccurate and disingenuous by subscribing to Transocean for one week in mid-January and one in mid-February 1922. In its article of 17 January on the first week, the author faulted the service for bad English and using so much jargon that the *Times* writers had to read some parts four or five times to understand them. The messages were indeed so difficult to interpret that "the chances seem to be that Nauen would be unable to recognize its own children if it saw them in their last transformation in print." The *Times* also accused the Transocean service of "flatness" in its reporting on Aristide Briand's resignation and derided its inability to prioritize important news, for instance ignoring the Anglo-Irish agreement in favour of a report on the Serbian government's order of 20,000 frame houses from Germany.

For the second week in mid-February, the *Times* also subscribed to British and French wireless services, summarizing in an article on 21 February that: "this preliminary glance provides one with amusement at the extent to which characteristics conventionally attributed to the three nations appear in their wireless." The British news reports were insular, narrow and unbalanced; the French had the broadest range of topics and were clear, though "notable for a kind of logic susceptible to occasional aberration." The German service was condemned, as it had been in January, for "dragging in [press] opinions regard-

Times correspondent in Berlin, "Propaganda by Wireless; Germany's 'News' Service," The Times, January 7, 1922.

 [&]quot;German Lies in the Far East. Need of Counter-Propaganda," *The Times*, January 7, 1922.
 "Propaganda by Wireless. German 'News' Mischief. Nauen and its Children. A Week's Test," *The Times*, January 17, 1922.

less of their value" and furthermore this time, for being "puerile, clumsy, but none the less insidious." 74

The *Times*' gravest accusation was that Transocean disseminated false and distorted news. A report on February 28 claimed that the German news service had mangled an item from the *Times* on the Prince of Wales' visit to India. The *Times* reported that several members of the Prince of Wales' party in India had been shot at and that the identity of the assailants was unknown. Transocean, on the other hand, had twisted this to report that a "Mohammedan nationalist" had fired on the Prince of Wales himself, citing the *Times* as its source for the story. A week later, the German consul in Calcutta confirmed in a letter to the German Foreign Ministry that Transocean's version was incorrect.⁷⁵

The *Times*' assessment of Transocean was in fact fairly accurate. Even a German envoy to Peking, von Schoen, complained about the dreadful English in Transocean's Nauen service, giving these examples: "Even the communists confinded themselves within order" and "the Hitlerites have filed protest to the Ministry of the Interior and threaten to proclaim the election guilty." Its news was not of the highest quality and sorely needed a better system of news collection. J. Plaut, Transocean's representative in Asia, constantly emphasized this point, yet the funds were simply not there. Transocean's employees were badly paid and, by extension, usually under-qualified, as journalists turned to newspapers or other agencies for better salaries. The service continued to be an omnibus and thus barely adapted for differences between South America, Japan, China and Europe.

The *Times*' articles were the basis for articles around the globe.⁷⁷ The story also spread to Japan and China. Transocean's wireless service had only been operating in China properly since September 1921 and was disseminated by the Chinese Mitchell Chang under the name "Asiatic News Agency, Chinese Wireless Service, Berlin resp. Nauen" in English or "Deutsch-chinesische Telegramm Agentur" in German.⁷⁸ While Northcliffe's comments themselves were barely reported, the *Peking and Tientsin Times* reported on subsequent *Times* articles. According to the German ambassador in Peking, all foreign and some Chinese newspapers printed the House of Commons question on Transocean verbatim without commentary.⁷⁹ In Japan, on the other hand, the Japanese

⁷⁶ BArch R901/57684, 120.

⁷⁴ "Wireless News for the World," *The Times*, February 21, 1922.

⁷⁵ BArch R901/57662, 171.

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Transocean often used cover agencies to spread its news and thus its service had a different name in each different location.

Detter from the German ambassador in Peking to the Foreign Ministry, March 25, 1922, BArch R901/57662, 215.

Foreign Minister, Uchida Kōsai, assured the German ambassador to Tokyo that Northcliffe's name had a "nasty ring" to it in Japan. ⁸⁰ Indeed, on March 3, the *Japan Chronicle* criticized Northcliffe's hypocrisy in a biting commentary, remarking that clearly propaganda itself was not Northcliffe's problem, but rather that it was the Germans engaging in it.

It was no coincidence that the comments were picked up in *Tribuna* in Italy in early February 1922 via Marrchese Solari, the manager of Marconi in Italy, whose sympathies and business interests lay firmly on the side of the British. In France, meanwhile, the comments were little reported in newspapers themselves. They did cause concern amongst politicians, who feared the spread of false German news, most probably because of the ongoing battle for the control of news in the occupied Rhineland and the Ruhr. In late February, the French prime minister and foreign minister, Raymond Poincaré, ordered the French radio station at Bordeaux to keep a constant watch over news from Nauen and to correct any news, which could be detrimental to France.⁸¹

Still, no reaction came close to matching either the stream of British articles or the Times' effort in investigating the service. Indeed, in early March, concerns over Transocean were voiced at the highest political level. On March 6, 1922, Percy Angier Hurd (1864-1950), the first of four generations of Hurds to sit in the British House of Commons, asked if the Prime Minister, David Lloyd George (1863-1945), "knew that the German wireless Press service from Nauen was spreading anti-British and anti-French propaganda around the globe."82 Hurd posed the question in the House of Commons to Austen Chamberlain (1863-1937), at that time leader of the Conservatives in the House of Commons and head of the office of the Lord Privy Seal. Chamberlain replied that Lloyd George did know about Nauen and that now three wireless messages were being prepared daily by the Foreign Office News Department and being broadcast from the General Post Office wireless station at Leafield. Chamberlain claimed that these messages were being "reproduced in most European countries and by ships at sea" and that they would hopefully make it to the Far East once the wireless station at Cairo was complete.⁸³ The exchange demonstrates British awareness that they lagged behind the Germans in their creation of a wireless network and that the Germans' clear advantage spurred Britain's urgency in the matter. But why did the British react most strongly to news from Nauen and Northcliffe's assertions? There are several obvious answers to this question. These were comments initially made by an English press baron; it was a service on a British ship. Yet these explanations paint a very black-and-

⁸⁰ Letter from Solf, the German ambassador in Tokyo, to the German Foreign Ministry, January 12, 1922, BArch R901/57662, 85.

⁸¹ BArch R901/57662, 169.

⁸² Hansard, March 6, 1922, vol. 151, col. 835.

⁸³ Ibid.

white picture. The real reasons lie rather in the space and method of transmission: the sea and the wireless.

Ships were in fact the first area where the Nauen wireless came to the *Times*' attention. On July 2, 1921, the *Times* had published a letter from R. G. Findlater, who wondered "whether it is generally realized that over many of the waves which Britannia rules German propaganda is the only news received by the traveller and seafarer for weeks together." Findlater wrote that on his last four trips to East Asia in the past year, the liners had all posted news from Nauen, often not even mentioning its source. In conclusion, he called for an imperial wireless service to counteract this development.

Findlater referred explicitly to the refrain of the unofficial British anthem since the mid-eighteenth century: "Rule Britannia! Britannia rule the waves."85 It is a truism that Great Britain built an empire of the seas; historiographically, the oceans as a region of analysis and important source of ideology have been the focus of much recent attention, not least for Britain. 86 As David Armitage explains, the British had solved the contradictory but cherished values of mare liberum (that is, free trade) and mare clausum (that is, a maritime empire) by somewhat hypocritically claiming to rule the waves while ensuring freedom on the oceans.⁸⁷ By the time James Thompson wrote "Rule Britannia" in 1740, the British conceived of Britain as a "maritime power, with a commercial destiny based on its natural insularity."88 Buttressed by the ideas of Alfred Mahan (1840-1914) that the navy was the crucial factor in winning wars, the Germans challenged Britain's imperial supremacy through a naval arms race from the 1890s. The sea thus became the ultimate "cultural space of the imperial age" prior to World War I with the launch of ships providing an opportunity for great spectacles intended to drum up national support for naval projects.⁸⁹

⁸⁴ R. G. Findlater, "News at Sea," *The Times*, July 2, 1921, letters.

⁸⁵ The poem, "Rule Britannia," was written by James Thomson and set to music by Thomas Arne in 1740.

For recent discussions of methods and theory of maritime history, see "AHR Forum: Oceans of History," American Historical Review 111:3 (2006): 717-780; Bernhard Klein and Gesa Mackenthun, eds., Sea Changes: Historicizing the Ocean (New York: Routledge, 2004)

⁸⁷ The British achieved this principally through the Navigation Acts of the 1660s, whereby all European goods headed for America or other British colonies had to stop in Britain. These acts were only repealed in 1849.

Bavid Armitage, The Ideological Origins of the British Empire (Cambridge and New York: Cambridge University Press, 2000), 106. British identity is of course far more complex and multi-faceted than represented here. See, for example, Linda Colley, Britons: Forging the Nation, 1707-1837 (New Haven: Yale University Press, 1992); Robert Colls, The Identity of England (Oxford and New York: Oxford University Press, 2002); Keith Robbins, Great Britain: Identities, Institutions and the Idea of Britishness (New York: Longman, 1998); Paul Ward, Britishness since 1870 (London and New York: Routledge, 2004).

⁸⁹ Jan Rüger, The Great Naval Game. Britain and Germany in the Age of Empire (Cambridge and New York: Cambridge University Press, 2007), 213.

Launch celebrations were suspended during World War I, but restored in the 1920s and 1930s, though with much reduced fleets as a result of the Washington Conference and Scapa Flow. 90 The sea thus continued to retain an element of its pre-World War I significance as the "location of a nation's struggle for survival in which it would either flourish or vanish."

The importance of the sea helps us to understand why Lord Northcliffe so readily extrapolated from the news reports he read on the P&O liner to the entirety of East Asia. After all, control of the oceans was a means to assert economic control and political influence. Demonstrating naval might remained a method to avow imperial unity into the 1930s. 92 As a media magnate, Lord Northcliffe clearly regarded Transocean's entry into the naval news market as a direct threat to British imperial control as a whole. His creation of an uproar about news from Nauen certainly alerted the British public and government to what he perceived as threatening German behaviour. It seems that Northcliffe took wireless as pars pro toto evidence of Germany's continuing belligerence even after Versailles, just as many British leaders perceived the naval arms race prior to World War I as evidence of Germany's general jingoism. Wilhelm Schwedler speculated that Northcliffe was also motivated by the more practical aim of hindering Transocean's future success by restricting its transmission times and the wavelengths it could use to disseminate news. 93 This leads us to the second reason for the resonance of Northcliffe's complaints: Germans' use of wireless technology.

The niche of the sea was wireless' biggest potential market: the German navy and trading companies were Telefunken's first major customers, greatly influencing the development of the wireless system. 94 Especially after the sinking of the Titanic, the market became more regulated and wireless' importance for safety on the seas was taken far more seriously.95 What had been wireless' main vice became its ultimate virtue: its ability to broadcast in multiple directions at once became a key feature of its ability to increase safety on the seas.

⁹⁰ On June 21, 1919, the German fleet managed to scuttle most of its ships at Scapa Flow so that the Navy did not have to deliver its fleet to the Allies as foreseen in the Versailles

Treaty. The British admiralty restored the practice of launching warships in February 1920; the Royal Navy Reserve Fleet performed manoeuvres again in July 1924. Only under the Nazis did the Germans return to pre-war levels of naval review and ship-launching rituals, though now with new technology, and a functional modernist bent. For more details, see

Rüger, The Great Naval Game. Britain and Germany in the Age of Empire, 251-272. Ibid., 213.

⁹² Ibid., 269

⁹³ Wilhelm Schwedler, internal report, January 24, 1922, BArch R901/57662, 7.

⁹⁴ As mentioned above, the German government's wish to circumvent British cables en route to its colonies was also important, but the two were only connected by wireless in 1913-14.

The first attempt to regulate the wireless market came in 1906, mainly because the sheer number of stations in the North Sea (over 1500) meant that there was much interference in messages.

The German government first took advantage of this capability during World War I, when Transocean often transmitted messages "to everyone." This usage points towards radio's later use for broadcasting, although this was only possible after the invention of electron tubes which enabled the transmission of continuous waves and thus sound. 96 In terms of the press, the German Postal Ministry established press news for ships from the radio station, Norddeich, in 1907. Wolffs Telegraphisches Bureau broadcast 200 words twice a day, which ships then used to create on-board newspapers. 97 As ever fewer passenger ships sailed during World War I and especially after America's entry into the war, this function became obsolete, and Transocean took it up thereafter, broadcasting 500 words daily in English. 98 Transocean sent out its news for free as it was subsidized by the German government. Ships took its news to cut costs, although it is hard to estimate exactly how many ships took the service, as any ship with a radio could receive the service within the right range. British and American companies, meanwhile, only offered their services for payment, because of copyright restrictions. Indeed, the British had been surprisingly inactive about building up a wireless network prior to World War I; in comparison to governmental cable committees' energetic efforts to establish its All-Red Route and maintain its cable superiority, "the wireless subcommittee seemed defeated from the start."99 Britain also paid similarly little attention to destroying German wireless stations during World War I, all of which helps to explain Northcliffe's surprise and horror at Transocean's strong position in Asia. In contrast to Britain's lethargy in establishing wireless networks up to the early 1920s, Germany's legal infrastructure and government financial support offered Transocean the opportunity to take advantage of radio's ability to broadcast within a wide range and reach anyone able to pick up its signals.

Nevertheless, Transocean's success in Asia was short-lived. After broadcasting directly to Japan, in the late 1920s, the Japanese government forbade it from transmitting to its wireless station, claiming it wanted to free up time for its own messages. For the next few years, Transocean was forced to send news

⁹⁶ Friedewald, "The Beginnings of Radio Communication in Germany, 1897-1918," 460. The German government remained preoccupied with the problem of ensuring that purchasers of radios would pay their subscription fees. A 1923 amendment set out the punishments of fines of up to 1 million Marks and prison sentences to prevent users listening for free. The Reich radio commission even suggested cancelling the service altogether if too many people did not pay fees. BArch R3301/209, 43.

Friedewald, "Telefunken und deutsche Schiffe, 1903-1914", 40.

Transocean sent 500 broadcasts of approximately 400 words in 1920, then 400 of approximately 400 words in 1921 and 1922, thus adding up to approximately 500 words a day. These went overseas. Up to August 21, 1922, Transocean also sent 1000 words daily from Nauen to Europe, thereafter from Eilvese. "Statistik der Reichspost- und Telegraphenverwaltung," 1923, BArch R3301/2098, 98.

The Post Office only signed a contract with Marconi's to build six imperial wireless stations in July 1913. Headrick, The Invisible Weapon, 132.

to Japan from China via cable, thus eliminating most of the advantages of wireless. Developments in the Chinese political situation made news dissemination there increasingly difficult. The service grew in popularity in South America after the introduction of more reliable short-wave radio in 1929. Ships continued to subscribe to the Transocean service; a letter to the *Times* on May 15, 1927 stated that the Nauen wireless was still ubiquitous on ships in East Asia. Only in the Nazi period, however, did Transocean have the funds to make significant waves in the global newspaper market. The Nazis poured money into the enterprise: subsidies nearly trebled from 1936 to 1937. Transocean worked alongside *Deutsches Nachrichtenbüro* in many areas and achieved far more recognition post-1933 than it ever had before. As World War II turned increasingly against Germany, Transocean's range shrank accordingly. Although it was only formally struck from the register in 1957, it had distributed no news since the end of World War II.

Transocean might initially seem like a mere footnote to news agency history, especially before 1933. In fact, it is an excellent demonstration of how the technology made the news, rather than the words contained in the transmission. Transocean and the German government's exploitation of the medium (or rather media) very much determined the message. 101 Wireless filled in the gaps which cable telegraphy could not bridge. Prior to World War I, this generally meant that ships could communicate swiftly with land. For Germany, though, wireless telegraphy held much more promise than for the British. It offered a chance to avoid the British-dominated cable routes to various German colonies in Africa and Asia. Furthermore, the Germans understood how to take advantage of the new possibilities offered by circumventing Britain's attempt at a communication blockade in World War I and by broadcasting to moving "targets" of ships after the war. Wireless telegraphy remained one of Germany's only means to disseminate its news outside its territory in the early 1920s. As a news agency outside the renegotiated cartel agreement, Transocean was free to spread its news as it pleased; it focused primarily on using that news to raise Germany's profile abroad and favourably influence Asia and South America.

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Klee, "Die Transocean GmbH," 190. The Nazis decided not to absorb Transocean into the Deutsches Nachrichtenbüro. Transocean was placed into Goebbels's Ministry for Public Enlightenment and Propaganda. For more details on news agencies in the Nazi period, see André Uzulis, Nachrichtenagenturen im Nationalsozialismus: Propagandainstrument und Mittel der Presselenkung (Frankfurt am Main and New York: P. Lang, 1995); Peter Longerich, Propagandisten im Krieg: Die Presseabteilung des Auswärtigen Amtes unter Ribbentrop (München: Oldenburg, 1987) and Klee, "Die Transocean GmbH," 187ff.

By adding human agency to the production of the message, this article adapts and builds upon the phrase from Marshall McLuhan in Marshall McLuhan and W. T. Gordon, Understanding Media: The Extensions of Man (Corte Madera, CA: Gingko Press, 2003). W. J. T. Mitchell asserts that all media are "mixed media" from a sensory perspective. W. J. T. Mitchell, "There are no Visual Media," Journal of Visual Culture 4 (2005): 257-266.

The British meanwhile rather sat on the laurels of their "All-Red Route" of cables and only really developed an imperial wireless chain in the early 1920s.

Once British cable steamers had cut five of Germany's undersea cables in the first months of World War I, wireless news from the Nauen transmission station remained the only method to disseminate news overseas. Political imperatives dictated wireless' target audiences in America, South America and East Asia, in turn influencing the location of receiving stations on the East Coast of America and the constant increased range of reception required. Conversely, wireless technology redrew the boundaries of the possible in news dissemination and political influence. As Pinkerton and Dodds suggest, this entailed very different spatial concepts than cables: a "sonic geopolitics." ¹⁰² In the German case, East Asia and ships became accessible news markets. With the support of both imperial and Weimar governments, Transocean took advantage of these developments to spread its news in hitherto untapped audiences. Helped by different copyright regulations, and supported by government subsidies. Transocean could offer its news to all ships for free. The sea had been the ultimate battleground between Germany and Great Britain for both military supremacy and the wireless market prior to World War I. The importance of the sea did not just disappear after the war; the ocean remained a referential space, an arena which still set the precedent on land for many, including Lord Northcliffe.

Wilhelm Schwedler dismissed the Northcliffe episode in his 1922 book as a drop in the ocean. For him, it was only important because it demonstrated that the German press had indeed begun to tread that elusive "path to freedom" one which would subsequently be trodden by the German people and government. 103 Liberty to disseminate news via wireless was the precedent for political freedom in Schwedler's eyes. The end of the road was far, but Schwedler believed that wireless technology provided the resources for Germany to reach autonomy, slowly but surely. Neither the introduction of more reliable short waves nor radio as a spoken mass medium, however, enabled German news to reach the lofty goals Schwedler proclaimed. In the Weimar Republic, news did not become a profitable commodity for Transocean nor did its quality vastly improve. Its tone was often inappropriate and its content lacking. Yet the German government's support for Transocean's exploitation of the possibilities inherent in wireless technology enabled Transocean to undermine the Britishdominated cable networks and thus to provoke an effect far beyond what its financial support and distribution would suggest.

Pinkerton and Dodds, "Radio Geopolitics: Broadcasting, Listening and the Need for Acoustic Spaces," 24.

¹⁰³ Schwedler, Die Nachricht im Weltverkehr, 128.

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