

## 7. The Final Link: the East-West Telegraph



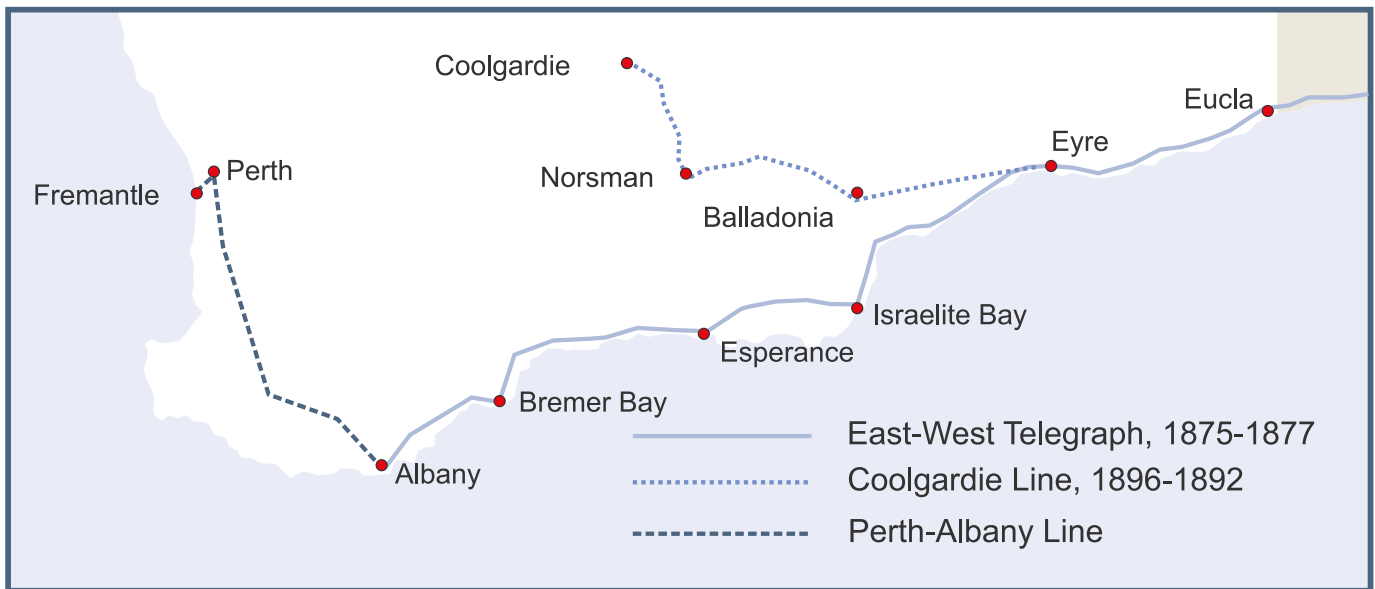
*The sand-covered ruins of the Eucla telegraph station are an Australian icon  
[Photo: Richard Venus 0140]*

In the early days of communication planning, the importance of connecting Western Australia to the national telegraph network was well recognised. According to a *Register* report in 1860, both Charles Todd in Adelaide and Samuel McGowan in Melbourne favoured “the western coast for the purpose of connecting Western Australia, and to aid the present mail service”.<sup>1</sup> In fact, Todd considered a line to the west should be considered in preference to one through “the uninhabited interior”.<sup>2</sup> It was only after John McDouall Stuart’s second expedition in 1859 that Todd acknowledged that it was “probable that an overland route will ultimately be found practicable”. However, he hastened to add: “I do not wish it to be understood that I am advocating a line across a desert; it is only on its being shown to traverse country available for settlement that I recommend its adoption.”<sup>3</sup>

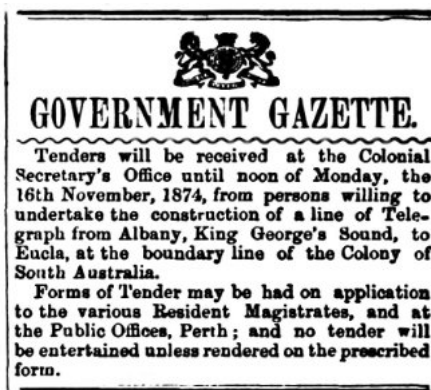
When Francis Gisborne arrived in Melbourne in 1859, his focus was on the eastern colonies<sup>4</sup> and Todd considered that his scheme, of the four being touted at the time, “most merits support”. “We trust that no time will be lost in adjusting all the necessary preliminaries to the commencement of this most important work,” said the *Register*.<sup>5</sup>

Six years later, in November 1865, John Baker moved in the SA Legislative Council: “That it is desirable to establish telegraphic communication between Adelaide and King George’s Sound.”<sup>6</sup> The *Register* pointed out that, if the ultimate goal was a connection to India, “why not take the line direct?” and said that Baker had failed to make a case for the line west. “Such a line, it was thought, would be of no earthly use except to inform us now and then that Bill Sykes had broken loose again and had fled to the bush.”<sup>7</sup> In fact, an argument against the line was that Western Australia was “a convict colony” and that the telegraph would guide escaping felons to South Australia: Baker countered by saying that the telegraph could be used to give police advance warning of escapees.<sup>8</sup> “At present this question of a telegraph to Western Australia is all guess-work,” said the *Register*, “[and] the Queensland people seem likely to win the race in this contest.”<sup>9</sup>

The possibility of a line to Western Australia was revived again in 1869 when William Towler wrote to the Perth *Inquirer* with details of his scheme to build a telegraph line from Adelaide and through Western Australia to connect with a cable from Java.<sup>10</sup> Charles Todd supported a connection to the west, just not Towler’s which involved starting with a “light cable” across the gulfs from Adelaide to Port Lincoln. Instead, Todd would start from Port Augusta and build a land line to Perth “with a submarine cable thence to Ceylon”. The western connection, he said, “possesses several important advantages. It would connect Western Australia with the eastern colonies, and coincide with the existing mail route.”<sup>11</sup>



*Western Australian section of the East-West Telegraph which started from Albany on 1 January 1875 and the later extension to the goldfields at Coolgardie*



*Western Australian Times,  
28 August 1874, p2f*

WA was rather late to the telegraph party and the initiative was taken by a private company, the Western Australian Telegraph Company (WATC) formed in June 1868.<sup>12</sup> Their first objective – as was the case with Victoria and South Australia<sup>13</sup> – was to build a line between the city and its port. The first pole of their new telegraph was planted by Fred Barlee, Colonial Secretary, on 19 February 1869<sup>14</sup> and the line was opened on 21 June 1869.<sup>15</sup>

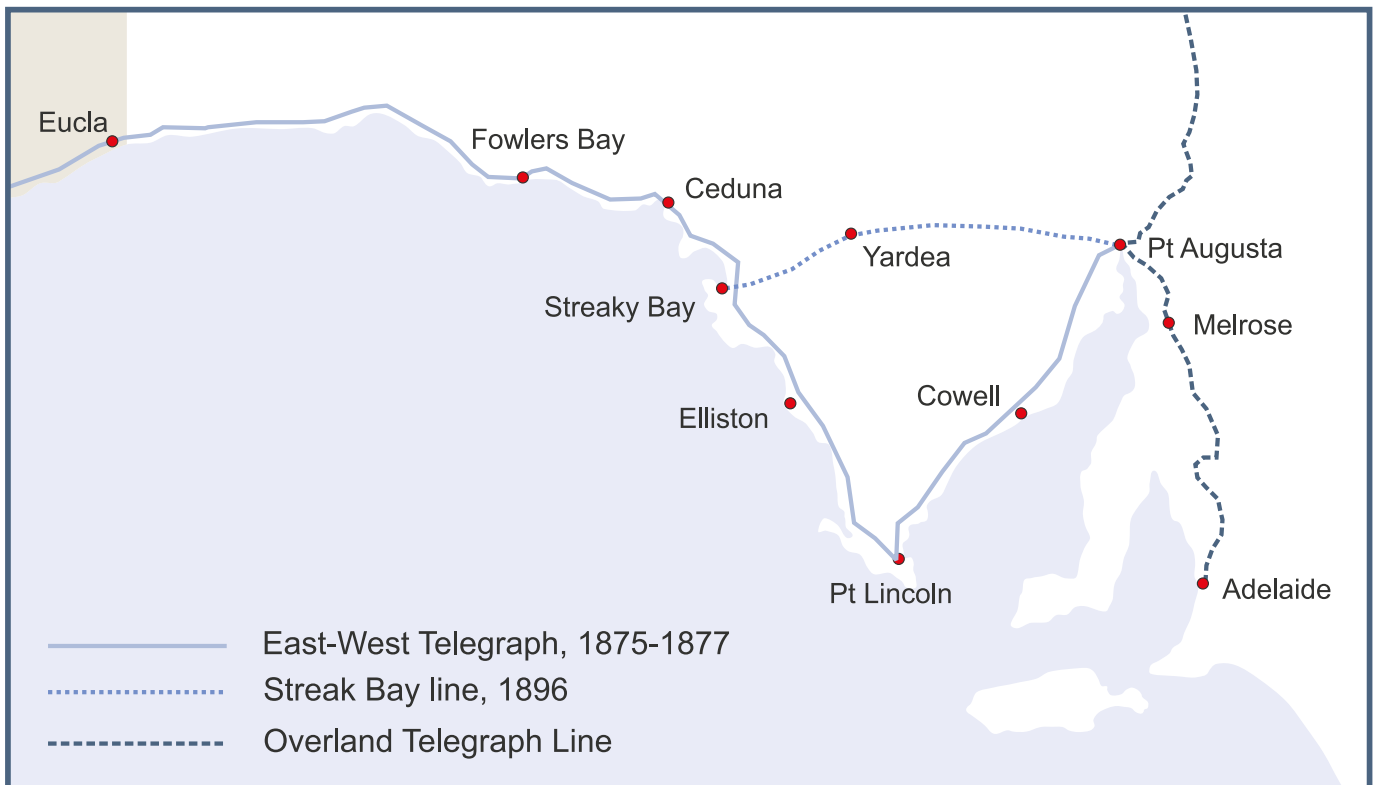
Western Australia took the initiative when Barlee wrote to the SA government in 1873, following the completion of the OTL, proposing to join their telegraphic system to that of South Australia. Chief Secretary Arthur Blyth said that “at first sight the propositions seemed reasonable and fair” and asked Todd for a report.<sup>16</sup> The report and the correspondence were tabled on 7 October 1873.<sup>17</sup> Todd had prepared a plan of a likely route and provided costings, saying he favoured “the adoption of iron [poles] throughout as being cheapest in the end, although more costly at first”.

Although the expected revenue would not cover the interest at first, Todd noted “the desirableness of bringing all the Australian Colonies into telegraphic union and opening up the country to the westward”.<sup>18</sup>

In August 1874, the Western Australian Government called for tenders “from persons willing to undertake the construction of a line of Telegraph from Albany, King George's Sound, to Eucla, at the boundary line of the Colony of South Australia”.<sup>19</sup> Tenders were accepted in December for the supply, carriage and erection of telegraph posts; the supply of materials and the construction of telegraph stations; and the supply, carriage and erection of telegraph equipment.<sup>20</sup> Governor Frederick Weld planted the first pole at Albany on New Year's Day, 1875, his last official duty before leaving the colony to take up his post as Governor of Tasmania.<sup>21</sup>

In South Australia, tenders were called in January for building a line of telegraph from Port Augusta to Eucla, via Streaky and Fowlers Bays. The line would be in two sections: about 340 miles from Port Augusta to Fowlers Bay, and about 250 miles from Fowler's Bay to Eucla.<sup>22</sup> A few weeks later a deputation convinced the government to take the line through Port Lincoln.<sup>23</sup>

By March 1875, WA had sent an advance party to “clear the line and sink for water where necessary”<sup>24</sup> and Walter Thomson's tender for the first section of the South Australian line, to Fowlers bay, had been accepted.<sup>25</sup> Thomson, known as “Watty”, had a successful farm at O'Halloran Hill but had also contracted to build the South Australia section of the Intercolonial Telegraph Line in 1857.<sup>26</sup> The government would supply the materials (poles, wire and insulators) and it was Thomson's job to cart and erect them. A shipment of 2500 iron poles intended for the OTL, expected in July, would, instead, be used on the East-West Line.<sup>27</sup> Thomson started work at Port Augusta West, inviting Mayor-to-be, T McTurk Gibson to plant the first pole in Loudon's Road on 24 August 1875. Despite the “very short notice”, a considerable number of people attended the ceremony and were entertained afterwards by Thomson at James Fitt's Western Hotel “where champagne flowed freely and sundry toasts were given”.<sup>28</sup>



*A surviving piece of the submarine cable at Port Augusta and one of Siemens' patented insulators: the flat spanner used to tighten the locking nut is still attached but the handle has broken off [Photos: Gavin Beinke]*

Dick Knuckey had been given the responsibility of surveying and supervising the project — “a task that is expected to last about two years” — but first he had to lay out the telegraph line between Moonta and Edithburgh.<sup>29</sup>

A key question was how to get the telegraph line across the gulf at Port Augusta. An overhead crossing was out of the question: it was a busy port and massive supporting structures would be required to carry the line over the towering masts of vessels using the harbour. William Towler had talked of “light” cables to cross the gulfs and this was the solution adopted here. However, there would be a risk of anchors snagging the cable<sup>30</sup> and a crossing point further up was chosen. There is no information about the

*The South Australian section of the East-West Telegraph started from Port Augusta on 24 August 1875 and reached the border near Eucla on 8 December 1877*

**TELEGRAPH TO EUCLA FROM PORT AUGUSTA, VIA STREAKY BAY AND FOWLER'S BAY.**  
General Post-Office, Adelaide, Telegraph Branch, 20th Jan., 1875.

SEALED TENDERS will be received at the Office of the Postmaster-General and Superintendent of Telegraphs until noon of Thursday, the 18th proximo, for the ERECTION of a LINE of TELEGRAPH from PORT AUGUSTA to EUCLA, on the Western Australian Boundary, via Streaky Bay and Fowler's Bay.

The line will be divided into two sections, viz. :-

- 1st. From Port Augusta to Fowler's Bay, a distance of 340 miles, more or less.
- 2nd. From Fowler's Bay to Eucla, a distance of 250 miles, more or less.

Plans and Specifications and all particulars can be obtained at the Office of the Postmaster-General and Superintendent of Telegraphs.

Tenders will be received, for one or both sections, but must be accompanied with a Bank deposit in favor of the Postmaster-General and Superintendent of Telegraphs for the sum of £350 for each section tendered for. The deposit to be retained, should the tender be accepted, as a security for the due fulfilment of the contract, until the work is completed.

Each tenderer must also submit for the approval of the Government the names of two responsible persons willing to become answerable for the due performance of the contract, who, with the tenderer, will have to execute a bond to H.M. Government within one month from the acceptance of the tender for a sum equal to the full amount of the tender. The deposit will be forfeited if the bond is not executed within the time specified.

Neither the lowest nor any tender will be necessarily accepted.

CHARLES TODD,  
Postmaster-General and Superintendent of Telegraphs.

*SA Advertiser,  
25 January 1875, p4e*



cable and the only mention of its location is the sad report of the drowning of Mary Ann Fitts, ironically the wife of publican James Fitts, which occurred in February 1880 “about half a mile above the jetties ... near the telegraph poles”.<sup>31</sup> In 2022, researcher Gavin Beinke found evidence of the cable and crossing on both sides of the gulf.

In WA the work had been allotted to a number of different contractors in December 1874.<sup>32</sup> The wooden poles were being shipped from Bunbury and by the end of June 60 miles had been erected.<sup>33</sup> In September 220 tons of telegraph materials arrived from London.<sup>34</sup> These included 18 000 Siemens insulators of a novel patented design:

... mounted with a galvanized-iron cap, carrying two projections and a pin to which a cam or eccentric nut is fitted, which on being turned round slightly, bends the telegraph wire placed between the projections, and fastens it, like a vice, to the insulator; thus dispensing with binding wires and the after troubles attending them.<sup>35</sup>

Also in the shipment was an insulator attachment plate designed by the WA Superintendent of Telegraphs, James Fleming, and manufactured by Siemens. The galvanised-iron plate was screwed to the top of the pole “and carries in centre a raised socket, into which the steel stalk of the insulator clips and locks, and by the side of which the lightning wire will pass for the protection of the pole”.<sup>36</sup>

By the beginning of December 1875, 135 miles of the SA line had been completed. The lack of water, however, was proving a problem “but still greater difficulties may be expected between the Bight and Eucla”.<sup>37</sup> On 14 January 1876 the line reached Port Lincoln and Andrew Howley, a veteran of the OTL who had been stationmaster at Daly Waters, was appointed to take charge of the station there.<sup>38</sup> On 9 March 1876, the first station on the WA line – Bremer Bay, about 150 miles from Albany – was opened, and communication established with Perth.<sup>39</sup> On 31 May 1876 the SA line reached Streaky Bay and Knuckey, who had pushed ahead to survey the route to Eucla, returned to telegraph the news to friends in Kapunda.<sup>40</sup>

Tenders had been called twice for the remaining section from Fowlers Bay to Eucla but no acceptable offer had been received and Todd recommended that the government “authorize him to undertake the work”. Knuckey was recalled to Adelaide to plan the work and equip a party “of about 30 men and 60 horses, and in eight or nine months from the time of starting we may expect to be in communication with Eucla”.<sup>41</sup>

While all this was going on, there had been a prolonged outage on the cable to Java. With land lines as far north as Geraldton and the completion of the East-West Line in sight, the possibility of a new cable connection to the western coast was revived, and not just in Western Australia. This would also have the advantage of bypassing the troublesome connection through Java in the hands of non-English-speaking operators.<sup>42</sup> Messages would still have to pass through South Australia which would preserve the colony’s pivotal role as the hub of Australian telecommunications.

Alarm bells were raised in the SA Parliament in August when a report appeared in the Fremantle *Herald* saying that the WA line was “not likely to be finished-for many years to come, except it were taken up by the other colonies”.<sup>43</sup> The Commissioner of Public Works, John Colton, replied that, as far as they were aware, WA was making “satisfactory progress” and the work was being pushed forward with vigor”.<sup>44</sup> Todd wrote to Anthon Helmich, WA Postmaster-General, who firmly refuted the “absurd rumour”, saying:

I have every reason for believing that communication will be established between Perth and Eucla by the middle of next year; and but for the loss of time occasioned by the stranding of a vessel on the coast engaged in carrying poles and materials greater progress would have been made.<sup>45</sup>

Todd forwarded this response to the government and, in his covering report, provided an update on the SA line which was now 30 miles west of Fowlers Bay with enough poles and wire to reach the head of the Bight. However, he drew attention to the lack of feed (which had to be supplemented from Adelaide) and water, the heavy sinking due to the rocky ground, and the coastal conditions which made landing supplies by boat difficult. He concluded: “Notwithstanding these great difficulties we are making good progress, and have no doubt of our line being completed as soon as the Western Australian section.”<sup>46</sup>

Thomson had finished his part of the work at the beginning of October 1876 and messages could be sent and received using a field instrument. Knuckey’s men were “vigorously engaged” in building the line between Fowlers Bay and Eucla.<sup>47</sup> Over the border, Fleming had reported their line open as far as Esperance Bay and expected that the work would be completed in about six months’ time.<sup>48</sup>

At the end of November, the WA Department of Public Works called tenders, open until 23 January 1877, for the construction of a Telegraph Station at Eucla.<sup>49</sup> To speed up work, they adopted the OTL ploy of only putting in half the number of poles.<sup>50</sup> With the end at least in sight, the East-West Line was being recognised as a factor in Federation which, said the *Register*, “is at present only a dream, may at some future day become an accomplished fact”.<sup>51</sup>

In December 1876, Dr Frederick Renner, then living in Kapunda, received a letter from Dick Knuckey which gave a unique and frank account of the work and is worth quoting in full (right).

Dr. Renner, of Kapunda, has received from Mr. R. R. Knuckey, overseer of the Government party constructing the telegraph line to Eucla, an interesting letter descriptive of the work. In it he says —

The work from Fowler's Bay to Eucla may be divided into two sections — first, from Fowler's Bay to Yencombracowie (or the head of the Great Australian Bight) to Deliser's boundary line, 132 miles; but as the landing place (Eucla) is eight miles west of that I have recommended our Government to build the extra eight miles, and finish line to Eucla. You see we should have to cart over the ground, and it would take very little time building the line so close to the water and the landing place for the poles. I am interested in getting this done, as an extra eight miles would reduce the average cost very much. From Fowler's Bay to the Bight the line passes through medium country for the first 50 miles, going by several outstations belonging to Fowler's Bay Bun. The cartage up to here is not so bad ; stages are about 20 miles without water. As a rule the wells are deep (this one is 220 feet) and water brackish, but still as far as Tallawan line was very easy to put up, although the sinking was hard.

Our next stage from Tallawan to Combracowie is 40 miles through dense mallee scrub and no water. The road is something awful. When I tell you that it is worse than any part of section B on the O. T. Line you can imagine what carting over that means. Through this infernal ship I must shift about 120 tons of lime, material, and rations, &c., for my party. I tried to get some stuff landed at the Bight, but the skipper would not risk his vessel, so I shall have to cart out from Fowler's line material for 150 miles., I have all the poles laid to head of Bight, and am now carting the stuff to go 60 miles beyond. After leaving Combracowie we have no water until we reach Eucla — 146 miles between the two waters.

My plan is I shall carry, as I said before, 60 miles of poles from this side, and then make an attempt to push through; with the. teams for Eucla, and finish the other part from that end. Our success depends upon whether the horses can stand the 146 mile journey. There is good feed but no water. [Joseph] McMinn with the survey started through a fortnight ago. His first attempt was a failure, but I think he is OK now. I have been anxious about him, because if he gets stuck up in the middle lives might be lost. I hope to make my start about the end of February. It will be the worst time of the year, but I was kept in Adelaide during the winter, and let slip the best chance of doing the work, and now I must risk everything to make a success of it. It would never do for me to fail, and before I turn back from it I will see the end of every horse in the party. If good luck befriend us, I think I shall finish our line about the end of May, perhaps before.

Hamp, a squatter from the Port Lincoln side, went over to Western Australia this winter, and made the journey overland back. He had an awful time of it; lost two horses from want of water between the Bight and Eucla. (Cheering news for me, eh?) From his accounts I do not see how the Western Australia people can finish until about June or July, even if they do then, and they will have to reinforce their stock to do it at all. Hitherto they have plenty of landing places, and no distance to cart either water or poles, but when they reach Point Culver they will only have one landing place, 'Eyre's sand patch,' for the last 280 miles. This is better than I have got, but from Hamp's account they have not stock to carry it over the 140 miles each way. They are only putting up 11 poles the mile, now; going to fill up afterwards — stupid idea. Honestly, I do not think communication will be established with Western Australia until August next year.

— *SA Chronicle and Weekly Mail*, 16 December 1876, p7ef

Towards the end of January, the laying out of the South Australian line was completed and the survey party returned to Adelaide in the *Magnet* from Fowlers Bay.<sup>52</sup> Progress was “satisfactory” and Todd was confident that they would meet their target date of establishing communication with Adelaide by June 1877.<sup>53</sup> As with the OTL, a separate dedicated wire would be run from Adelaide to Port Augusta to carry the Western Australian traffic.<sup>54</sup> Later in the year there would also be talk of a direct line from Adelaide to Melbourne, crossing the Murray at Wellington or Swanport and going via Naracoorte and Casterton, thereby avoiding the repeating station at Mount Gambier.<sup>55</sup>

On 27 March 1877, MP John Williams returned to Adelaide on the *Nautilus* and reported that Knuckey and McMinn had arrived in Eucla while the schooner was still in port. It had sailed from Bunbury with 780 poles, 10 cases of insulators, and 136 coils of wire, sufficient to complete the WA portion of the work. Knuckey said that, as soon as rain set in, their work would “progress with renewed vigor”.<sup>56</sup> The lines on each side were now within 100 miles of Eucla.<sup>57</sup> In May, the wooden buildings for the Eucla station were shipped, along with more poles.<sup>58</sup>



*At first the South Australian telegraph operators (left) and the Western Australian telegraph operators (right) sat at the same table but were divided by a wooden partition with holes through which messages were passed [State Library SA B54385 and State Library WA b1920345/1]*



*From left (standing): Joseph McMinn, R R (Dick) Knuckey, John Randall Knuckey, (sitting) Frank Marchant, Walter Thompson (contractor, Fowlers Bay to Eucla), Henry Stuart Carey (Western Australian contractor, Eucla area) and Alfred Thomas Woods [State Library SA B16083]*

On Monday 16 July 1877, “the welcome news reached Adelaide that the telegraph line to Eucla had that day been completed”. The cost was about £67 500 which, said the *Register*, was “rather a large sum to pay for a line 760 miles in length”. However, there had been “peculiar difficulties to surmount”, mainly the lack of water, but the line had been made “thoroughly substantial ... and it is believed that the work within the South Australian boundaries will form one of the strongest, if not absolutely the strongest, in the world”.<sup>59</sup>

According to Knuckey, in a telegram he sent to Walter Thomson, now back at O'Halloran Hill, the line itself had been completed two days earlier but it seems to have taken the field operator, Albert Baldock, a little while to get his equipment set up. It was, said Knuckey, “a difficult piece of work; and I am very much pleased that it has been brought to a successful issue. We have beaten the West Australians.”<sup>60</sup> Reflecting on it many years later, Knuckey told an *Observer* reporter that the time he spent on that work was “about the worst in his life. But,” said the reporter, “after it all, he is active, healthy, and full of pluck.”<sup>61</sup>

The Western Australian line was still about 160 miles away when, on 16 August 1877, the premature departure of the mail steamer from King George's Sound left the Perth mail behind. Taking a leaf out of the OTL book, a number of messages were sent by telegraph to the end of the line and carried across the gap to Eucla by an estafette (mounted courier). The riders then waited a few days to take urgent replies back with them.<sup>62</sup> The WA Postmaster-General advertised “a special transmission of Telegrams *viâ* Eucla, on Friday next, 17th” at a cost of three shillings for every ten words and threepence for every additional word to South Australia and higher rates for more distant destinations which included New Zealand.<sup>63</sup>

With the East-West Line functional if not complete, the SA papers published the charges in August 1877: two shillings for every ten words and tuppence for every additional word.<sup>64</sup> A few weeks later, the *Express and Telegraph* reported a “good many telegrams” being received at the Telegraph Office to be forwarded to the estafette.<sup>65</sup>

By early October the WA gap was down to 100 miles and a weekly estafette was established.<sup>66</sup> As far as the Perth *Inquirer* was concerned, this meant that “telegraphic communication with South Australia, and consequently with the world” was now open.<sup>67</sup> In a further echo of the OTL, some of the SA team was sent across the border to assist.<sup>68</sup> As an indication of the estafette's effectiveness, the *Observer* noted that there was only a difference of a day or so in the news relayed from mail landed at King George's Sound to that received by way of Port Darwin.<sup>69</sup>



In November (or late October) 1877, Henry Carey, the Western Australian surveyor, arrived in Adelaide and met with Dick Knuckey. The *Register* suggested that “their labours should receive public recognition in some form or other”.<sup>70</sup> The men got together with other members of the surveying and construction parties and had a photograph taken at Saul Solomon’s Adelaide School of Photography. In a way, it was a reunion of senior officers from the OTL: Joseph McMinn, a brother of Gilbert and William McMinn; brothers Richard and John Knuckey; and Alfred Woods, superintendent of the Central Section.

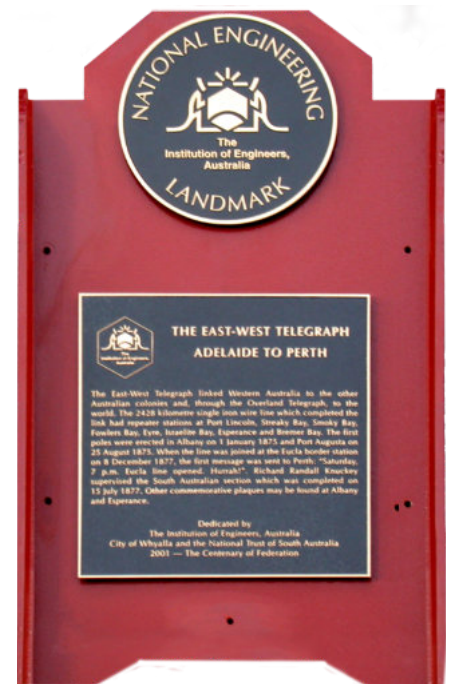
The Eucla telegraph line was finally opened at a quarter past seven o’clock on the evening of Saturday 8 December 1877, nearly three years after work had started in Albany. Messages of congratulation flowed back and forth. Among them was a curious enquiry from Todd to Helmich, asking him if he wanted to treat Eucla as a Western Australian location: Helmich replied that he was unaware that the border had shifted.<sup>71</sup> There was, however, separation within the main building with operators from the two colonies having their own rooms and kitchen and sitting either side of a long desk divided by a partition through which messages were passed. (This was removed, sometime after Federation.)

Stories abound that the partition was a boundary line between the colonies. The more likely explanation is that it was a practical one: each colony used a different version of Morse Code. Samuel McGowan brought with him to Victoria the Morse Code used in America. Charles Todd adopted the same Code along with what he saw as the superior technical qualities of the Morse telegraph system and the other eastern colonies followed suit. Western Australia, however, chose what became known as the International Morse Code which had been developed in Europe and became the standard there in 1865.<sup>72</sup> Recognising “the evils resulting from the employment of different telegraph codes”, the Postal Conference decided in 1896 “that the time had come for the adoption throughout Australia of what is known as the International code”: Western Australia only had to change the signals used for numerals.<sup>73</sup>

In December 1877, MP James Pearce raised the question of a bonus for Knuckey “by way of compensation to that gentleman for the efficient manner in which the work of effecting telegraphic communication with Western Australia had been carried out”. The Chief Secretary, William Morgan, said it had “not been under his consideration, but he would direct the attention of his colleagues to the matter”.<sup>74</sup> Nothing eventuated but the idea was raised again in August 1878 by the writer of a letter to the *Express and Telegraph* who said: “I think, sir, you will agree with me that Mr. Knuckey and his party are deserving of some reward for the way in which it was carried out. If the Western Australian Government can give their party £800 surely £1,000 wouldn’t hurt South Australia.”<sup>75</sup>

Again, nothing eventuated but the good citizens of Port Lincoln, however, had prepared “a beautifully illuminated address” which was presented to Knuckey by Charles Todd on 9 April 1878. Todd said “he had much pleasure in saying that he agreed with all that was said of Mr. Knuckey. He (Mr. Knuckey) had now had the honor of assisting in the completion of two of the most arduous undertakings in connection with the construction of telegraph lines — he might almost say — in the world.” The officers then adjourned to the Prince Alfred Hotel, “where the healths of Mr. Todd, Mr. Knuckey, and other toasts suitable to the occasion, were drank in champagne”.<sup>76</sup>

In the early 20th century, new telegraph lines which ran inland through Yardea diverted traffic away from Eucla and automatic repeating equipment handled what remained. The number of telegraph operators dwindled from thirty to four and the station was closed in July 1927.<sup>77</sup> The rabbits which began infesting the area from the turn of the century took care of the vegetation which had stabilised the coastal dunes and the old station became a picturesque ruin engulfed by sand.



*National Engineering Landmark plaque commemorating the East-West Telegraph Line placed at the Mount Laura Homestead, Whyalla, adjacent the National Trust's Telecommunications Museum, in 2001*



*Plaque commemorating the first pole of the Western Australian section of the East-West Telegraph Line placed outside the Albany Post and Telegraph office on 1 January 1875*



*Telegraph memorial at Eucla  
[Photo: Kerry Raymond and  
David Horton]*

A monument was erected up on the escarpment at Eucla in July 1958. The inscriptions read:

*Erected  
as a tribute  
to  
the staff who  
manned and maintained  
the EAST-WEST  
TELEGRAPH SERVICE  
between  
December 1877 and March 1927*

*C. W. Davidson, Postmaster General  
and  
Minister of the Navy, July 1958*

*The establishment of the  
East-West Telegraph Service  
in December 1877  
linked Western Australia  
with the Eastern States  
and through the  
North-South Telegraph Line  
between Adelaide and Darwin  
with Great Britain  
& the rest of the world*

#### References:

1. *SA Register*, 3 January 1860, p3b
2. *SA Register*, 24 February 1862, p2f
3. *SA Register*, 21 July 1859, p3g
4. *SA Weekly Chronicle*, 23 July 1859, p3a
5. *SA Register*, 14 May 1859, p2d
6. *SA Register*, 29 November 1865, p2h
7. *SA Register*, 29 November 1865, p2c
8. *SA Register*, 29 November 1865, p2h
9. *SA Register*, 29 November 1865, p2c
10. *Inquirer and Commercial News* (Perth), 14 April 1869, p2fg
11. *SA Advertiser*, 31 August 1869, p2d
12. *Perth Gazette and West Australian Times*, 12 June 1868, p2d
13. In New South Wales, the first telegraph line was a connection to South Head (1858) and in Queensland, a connection to New South Wales in 1861
14. *Inquirer and Commercial News* (Perth), 24 February 1869, p3b
15. *Inquirer and Commercial News* (Perth), 23 June 1869, p2f
16. *SA Register*, 25 September 1873, p6e
17. *SA Advertiser*, 8 October 1873, p3h
18. *SA Register*, 8 October 1873, p5a
19. *Evening Journal*, 25 May 1875, p2g
20. *Western Australian Times*, 11 December 1874, p2d
21. *Western Australian Times*, 8 January 1875, p4c
22. *SA Advertiser*, 25 January 1875, p4e
23. *Adelaide Observer*, 13 February 1875, p7a
24. *Herald* (Fremantle), 20 March 1875, p3c
25. *SA Register*, 27 March 1875, p5d
26. *SA Register*, 6 April 1875, p2e
27. *SA Register*, 30 June 1875, p5d; it is possible that these poles were supplied by Siemens, not Oppenheimer
28. *SA Register*, 30 August 1875, p5g
29. *SA Register*, 30 June 1875, p5d
30. For the same reason, the landing place for the cable from Gibraltar was changed from busy Falmouth Harbour to the quieter cove at Porthcurno
31. *Port Augusta Dispatch*, 20 February 1880, p8a
32. *Western Australian Times*, 11 December 1874, p2d
33. *Inquirer and Commercial News* (Perth), 30 June 1875, p3f
34. *Inquirer and Commercial News* (Perth), 4 October 1875, p2f
35. *Inquirer and Commercial News* (Perth), 3 November 1875, p2h
36. *Inquirer and Commercial News* (Perth), 3 November 1875, p2h
37. *Evening Journal*, 7 December 1875, p2g
38. *SA Chronicle and Weekly Mail*, 22 January 1876, p7d
39. *SA Register*, 10 April 1876, p7c
40. *Evening Journal*, 2 June 1876, p2b
41. *Evening Journal*, 15 June 1876, p2g
42. *Inquirer and Commercial News* (Perth), 28 June 1876, p3d
43. *Express and Telegraph*, 23 August 1876, p2d
44. *SA Advertiser*, 25 August 1876, p5ef
45. *SA Register*, 28 October 1876, p6e
46. *SA Register*, 28 October 1876, p6e
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