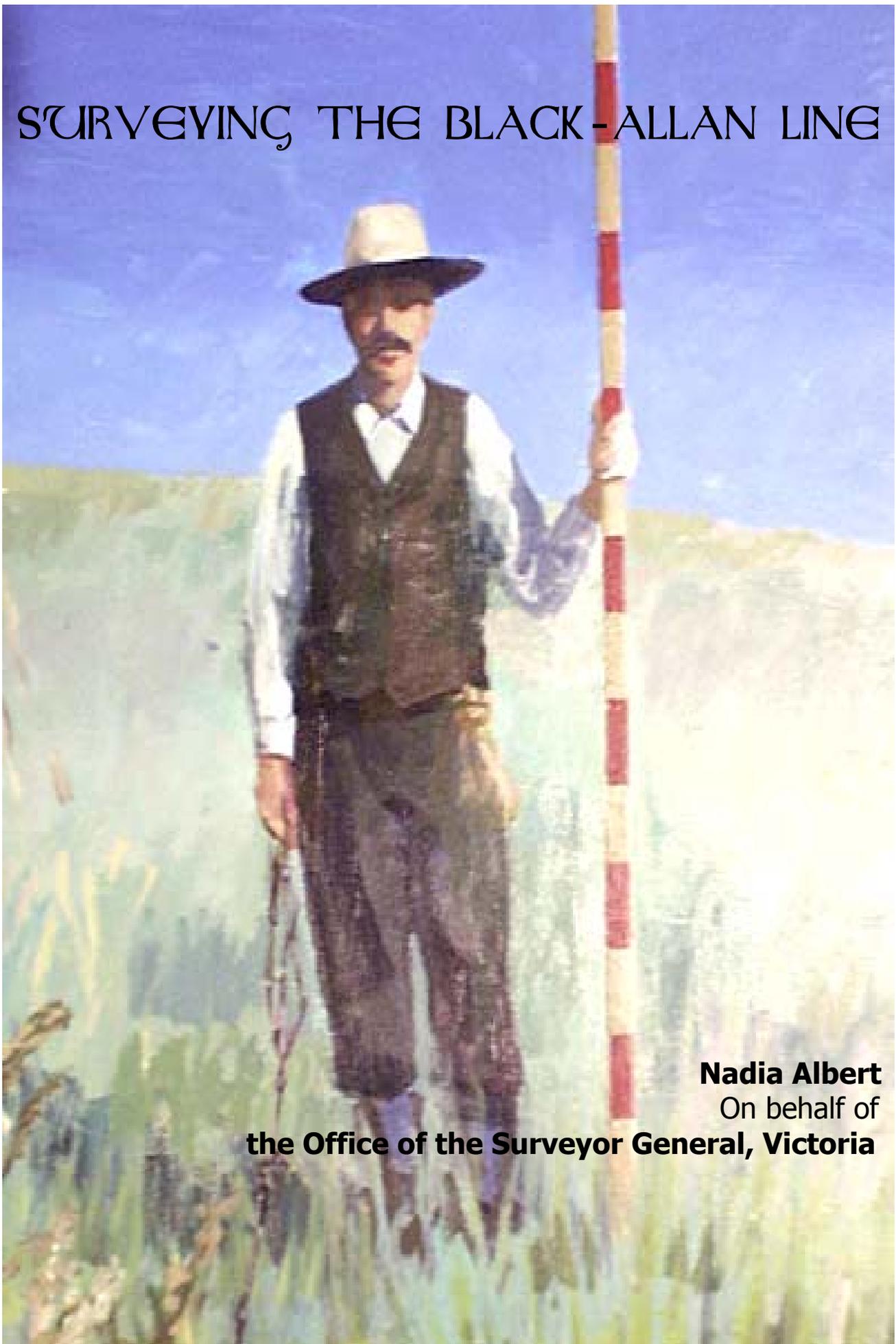
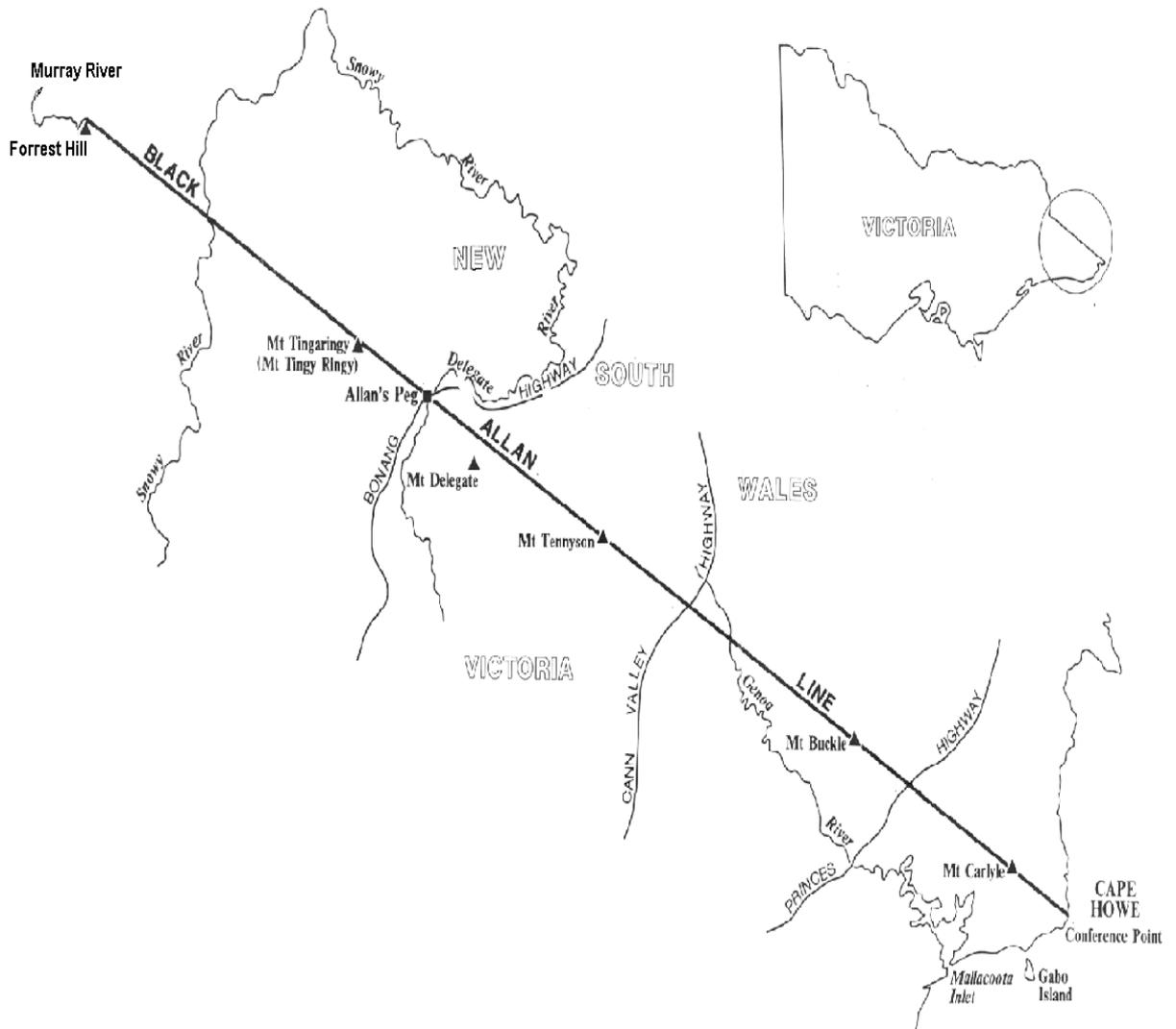


SURVEYING THE BLACK-ALLAN LINE



Nadia Albert
On behalf of
the Office of the Surveyor General, Victoria



Map of the Black-Allan line ¹

¹ Cover page image taken from jade.coe.edu/~pthomps/surveyor.html (Online; 6 November, 2003) Map from 'The Black-Allan line' (pamphlet) produced for commemorative ceremony at Victorian-New South Wales Border on the Princes Highway. Institution of Surveyors, 1985.

The Colony of New South Wales (NSW) was declared in 1787, the Port Philip District defined in 1842, and finally in 1851 Victoria was created as an independent colony. The focus of this paper is the Black-Allan line, which is the straight-line boundary between NSW and Victoria that runs from Cape Howe to the nearest source of the Murray River. Given the demand to ‘unlock the lands’ for settlement around Melbourne and Geelong, it was another twenty years before this remote territory was surveyed and the border was marked on the land. In tangible terms, the Black-Allan line is a series of cairns and other survey marks that together made possible the survey of the NSW-Victorian state border,² and therefore symbolises the development of Victoria as a separate, self-governing region. For surveyors, the Black-Allan line represents ‘survey work which for difficulties and for the requirement of skills, energy and endurance, as well as for the accuracy attained... has never been surpassed.’³ The history surrounding this boundary line, and particularly the journey of Surveyors Black and Allan, are worthy of commemoration.⁴

During the 1830s, prospects for making a living from agriculture spread European settlement beyond NSW and Van Diemens Land.⁵ In 1836, the Port Philip District was declared open for settlement. A ‘unanimous desire of the inhabitants’⁶ called for the speedy and entire independence of the district. This was hindered by disputes as to which of the two rivers, the Murray or the Murrumbidgee, would define the geographic division between NSW and the Port Phillip District. Debate raged between Southerners and Northerners who saw the economic significance of this difference, given the value of the Murray River trade, and that the rich Riverina district lay between the two rivers.⁷ Through varying use of nomenclature, the first Act (March 1839) mentioned recognised the natural boundary as being the Murrumbidgee,⁸ which would be ‘equidistant from the

² For the original description of the line forming part of the boundary between Victoria and New South Wales, see *Appendix A*. Chris Johnston, *National Estates Values of Land Survey Marks Project*. Melbourne: Land of Victoria, 1998, 52.

³ Quote from Ellery cited in *ibid.*, 53.

⁴ For a chronology of events concerning the Black-Allan line, see *Appendix B*.

⁵ Van Diemens Land is now known as Tasmania. See N. Bowden, *Victorian Year Book*, v. 90. Melbourne: Commonwealth Bureau of Census and Statistics Victorian Office, 1976, 3.

⁶ Quote from Dr. John Dunmore Lang cited in D.J. Taylor, *The States of A Nation – The Politics and Surveys of the Australian State Borders*. (to be published in 2004), 54.

⁷ B. Lewis, *Establishing the South Australia-Victorian Border*. RMIT Melbourne: Department of Land Information, 1987, 3.

⁸ D.J. Taylor, *The States of A Nation-The Politics and Surveys of the Australian State Borders*, 53.

two capital cities',⁹ and thus in favour of the Southerners. In 1840, Bishop Broughton sent a petition to England to the Queen and successfully changed this, with the July 1842 Act defining the border by the Murray River.¹⁰ Victoria was not 'the parent colony: we were the offshoot and were told what to do...'¹¹ This was the first mention of Cape Howe as the chosen boundary end-point along the eastern coast, but no indication was found in the author's research as to how this occurred. One possible reason is that in 1770 Captain Cook sighted and named the point (shown in his journals and maps), thus making the contemporary government and educated population aware of it.¹² This is an area for further research. The Act of Separation (Act 13, 14) in August 1851 defined the Colony of Victoria 'on the north and northeast by a straight line drawn from Cape Howe to the nearest source of the Murray River, and thence by that river to the eastern boundary of the Colony of South Australia.'¹³ Although seen to be somewhat in favour of NSW,¹⁴ the people of Victoria, led by Separationist Reverend Lang, largely accepted its confines. Separation in itself was worth rejoicing.¹⁵

The discovery of gold in Victoria in 1851 had two significant effects on the history of colonial surveying. The first was the dramatic population increase from 77,000 to 539,000 people in just ten years. This influx was accompanied by a cry to 'unlock the lands' for settlement. To implement vigorous land policies a reliable map of the settlement's 'extent, configuration and resources'¹⁶ was required. Surveying was vital in this 'boom and bust' era where ownership and thus the value of land were constantly changing, creating economic instability.¹⁷

⁹ Quote from Mommsen, *The Age*, 12 September 1985, 5.

¹⁰ D.J. Taylor, *The States of A Nation-The Politics and Surveys of the Australian State Borders*, 54.

¹¹ Quote from Mommsen, *The Age*, 12 September 1985, 5.

¹² R. and B. Appleton, *The Cambridge Dictionary of Australian Places*, Melbourne: Cambridge University Press, 1992. Cape Howe was named after Richard Viscount Howe, then treasurer of the Royal Navy, who subsequently became Earl Howe, an admiral who became famous for a victory over the French in 1794.

¹³ From notes compiled by P. Curnow on the 'Boundaries of Victoria' prepared for an address by the *Surveyor General at the 17th Annual Surveyors Conference*, Department of Crown Lands and Survey, 1982.

¹⁴ R.I. Grenfell, 'The Victoria-New South Wales Border: From the Murray to the Pacific' (speech), copy held at Surveyor General's Office Victoria. 1-2.

¹⁵ Paul Treloar, 'Location of the New South Wales-Victorian border.' (*Dissertation*, Royal Melbourne Institute of Technology, 1984), 6.

¹⁶ N. Bowden, *Victorian Year Book*, v. 90. Melbourne: Commonwealth Bureau of Census and Statistics Victorian Office, 1976, 11.

¹⁷ K.L. Chappel, *Surveying for Land Settlement in Victoria, 1836-1960*. Australia: K.L. Chappel, 1966, 6.

The second effect of the gold rush was ‘gold fever,’ which attracted men in the surveying profession, as it did any other.¹⁸ Facing a shortage of qualified surveyors, those of lesser professional standards were employed to cope with the demand for land. Unfortunately these early surveys were cripplingly unsystematic and disjointed. Indeed, ‘before the 1870s no reliance could be placed on land settlement surveys, and it was often impossible to obtain agreement of two adjacent surveys for issue of Crown grants, unless made at the same time by the same surveyor.’¹⁹

Accurate surveys meant slow surveys: senior surveying public officers could not convince the government of their importance.²⁰ Surveyor Alexander Charles Allan wrote that the ‘chief evil of mis-description... [is its] mischievous influence outside that portion of land... which sets every allotment in a block at variance.’²¹

From 1858 until 1874 a general survey of the Colony of Victoria was conducted for the purpose of systematically and accurately marking the boundaries of allotments for sale. The decision of which would be the most efficient method to survey and mark an entirely new colony, was difficult.²² In the end a geodetic survey was proposed to provide a physical datum for all survey work to be referenced from. A geodetic datum involves calculating three-dimensional mathematical co-ordinates (e.g. latitude and longitude) for easily accessible physical marks (e.g. beacons on hilltops). Setting up a geodetic framework allows features in a large area to be mapped and referenced in close alignment to how they exist on the ground, while also taking into account the earth’s curved surface. In practice, geodetic surveyors were ‘primarily engaged in reading angles from mountain top to mountain top.’²³ The quality of boundary marking in particular is directly related to geodetic datum, as it allows positional relationships to be expressed and mapped accurately.²⁴

Victorian Surveyor General Charles Whybrow Ligar (during 1858-69) advocated the American geodetic meridian survey that divides the land into primary and secondary

¹⁸ Eyewitness account, ‘Arrival of the First Gold Escort, William Street, Melbourne, 1852.’ Source unknown, reproduction print held at Surveyor General’s Office Victoria.

¹⁹ V.H. Arnold, *Victorian Yearbook*, v. 87 (Centenary Edition). Melbourne: Commonwealth Bureau of Census and Statistics Victorian Office, 1973, 89.

²⁰ Ibid.

²¹ K.L. Chappel, *Surveying for Land Settlement in Victoria, 1836-1960*, 118.

²² Surveyor General Charles Ligar, *1859-60 Report on the General Survey of Victoria*, 12th September 1860.

²³ G.N., Benwell, ‘Tracking Turton in Gippsland’ in “*Victorian Historical Journal*”, 62, Dec. 1991-March 1992, 118.

divisions.²⁵ Given sparing government funding, progress was slow and in 1860, Ligar's method was abandoned in favour of trigonometric surveys, advocated by Superintendent of the geodetic survey and Victorian government astronomer, Robert L.J. Ellery (1827-1908). This method had been tried previously from 1852-67, but was impractical for the *en masse* demands for land, and was thus abandoned.²⁶ The trigonometric method involved the calculation of a standard baseline and primary triangulation, before areas were subdivided by departmental or contract surveyors. Ellery, along with NSW Surveyor General Adams (1828-1901: Surveyor General 1868-1887) fought for the use of the relatively expensive and time-consuming trigonometric method. The main costs involved were of paying men and officers for enduring difficult conditions, and for establishing the baseline and permanent trigonometric stations.²⁷ To gain adequate funding they had to overcome the government's 'misunderstanding or under-appreciation of the nature and value of the work being done.'²⁸ Thanks to the accuracy of the baseline²⁹ and systematic survey of geographical and coastline features, surveyors were able to mark the boundary line and title-owners could fence their rights.

There had been calls for surveys of goldfields, railways, roads, geology, electric telegraphs, public works and marines. Once the majority of demands for surveyed land had been satisfied, resources were available to complete the border project. The request for ground definition of the Black-Allan line came in 1866 from Bairnsdale District Surveyor, Wilmot and Police Magistrate and goldfield Warden, Howitt, who were concerned as to which state had civil and criminal jurisdiction over local miners.³⁰ Eighty-percent of Bairnsdale's population were involved in quartz or alluvial mining on streams,³¹ and given the antagonism that existed between local and Chinese miners, crime was a significant problem.³² The same issues existed for several major mining operations,

²⁴ *Proposed Survey Co-ordination Regulations*, 2003, Regulatory Impact Statement, 36.

²⁵ 'Surveyor General Ligar' in *Surveying Victoria in Celebration of 150 years of Victoria's Surveyor General 1851-2001* (CD-ROM). Victoria: Surveyors Board of Victoria, 2001.

²⁶ G.N. Benwell, 'Tracking Turton in Gippsland,' 119

²⁷ K.L. Chappel, *Surveying for Land Settlement in Victoria, 1836-1960*, 95.

²⁸ Correspondence from R.L.J. Ellery to J.J. Casey, MP, Minister of Lands and Agriculture, 'Geodetic Survey,' 1873, 2.

²⁹ 0.0085 metres per kilometre difference with modern measuring techniques. Ross Bell, 'South Base Stone Park – Werribee,' *Traverse*, 196, September 2002.

³⁰ K.L. Chappel, *Surveying for Land Settlement in Victoria, 1836-1960*, 145.

³¹ *Ibid.*, 91

³² Correspondence from R.L.J. Ellery to the Commissioner of Crowns Land Survey of Melbourne, Letter of 4th June 1870.

including those on Delegate River.³³ Settlers were unsure who to pay their rent money to and of their postal address. By 1869, the Victorian and NSW governments agreed to pay half the costs each to delineate the border.³⁴

Prior to the 1870s, some survey work had been done in the area of the Black-Allan line, most notably that of Surveyor Thomas Scott Townsend (1812-1869). During the 1840s, under the leadership of NSW Surveyor General Major Sir Thomas Livingston Mitchell (during 1828-1855), Townsend surveyed the area surrounding the, yet unmarked, boundary line. Personal information about Townsend amounts to hearsay,³⁵ and while it has been suggested that he may have developed ‘acute insanity’ in his later years,³⁶ Mitchell regarded Townsend as a ‘most industrious and useful young man.’³⁷

Greater detail exists regarding Townsend’s surveying achievements on behalf of NSW between 1831 and 1854. From 1836, Townsend, on a yearly salary of £220, surveyed the land of the counties of the King and Murray Rivers. The area’s terrain is exceptionally difficult to survey, with many slopes angled at forty-degrees.³⁸ There were ‘steep, timbered hills, rough scrub, enormous boulders, rivers and creeks.’³⁹ Where twenty-five kilometres would be reasonable for a regular day’s hike, Royal Melbourne Institute of Technology (RMIT) groups have found that even with four wheel-drives rather than packhorses to carry supplies, five kilometres is more realistic in this territory.⁴⁰ Townsend led his party of ‘free-men’ (ex-convicts) and bullocks under difficult conditions, ‘days being generally excessively hot, the nights severely cold.’⁴¹ To ascertain what he believed to be the nearest source of the Murray to Cape Howe, Townsend surveyed the Great Dividing Range. This was not an easy task given the ‘large number of springs and rugged, densely timbered terrain,’⁴² and it required that ‘every water channel and every minutest bend of the range [be investigated]... so as to leave no

³³ K.L. Chappel, *Surveying for Land Settlement in Victoria, 1836-1960*, 145.

³⁴ R.I. Grenfell, *The Victoria-New South Wales Border: From the Murray to the Pacific*, 2.

³⁵ Alan E.J. Andrews, ‘Surveyor Thomas Scott Townsend: his work in Australia, 1831-54,’ *Journal of the Royal Australian Historic Society*, December 1993, 79.

³⁶ *Ibid.*, 14.

³⁷ *Ibid.*, 1.

³⁸ Catherine Turnbull, ‘Alexander Black – Pioneering Surveyor,’ *Gippsland High Country Tours*, no. 8, 1997/8, 8.

³⁹ *Ibid.*, 8.

⁴⁰ Rod Deakin, *Traverse*, 102, May 1987, 5.

⁴¹ Elyne Mitchell, *Discoverers of the Snowy Mountain*, Australia: McMillan Company, 1985, 33.

⁴² R.I. Grenfell, *The Victoria-New South Wales Border: From the Murray to the Pacific*, 4.

doubt as to the particular source sought for.⁴³ From this Townsend made a reduced plan to indicate the straight line to Cape Howe. At the expedition's end, Townsend's equipment was in a 'mutilated state.'⁴⁴ his men and bullocks were not much healthier.⁴⁵ In 1862, Edward Twynam re-marked Townsend's springs while surveying the Upper Murray area.

According to Chappel, there were three major steps in determining the position of the later named, Black-Allan line.⁴⁶ The first of these was extending the geodetic survey to identify the end-points of the line. The second stage was extending the trigonometric survey, that is, to calculate the bearings of points along the line. The third and final stage was in laying the boundary on the land from the geodetic survey. Let us examine each of these in turn.

In 1869, under the direction of Ellery and in turn, Surveyor General Andrew John Skene (serving 1869-1886), Surveyor Alexander Black (1827-1897) and his team relied on and extended geodetic survey data to locate the nearest source of the Murray River to Cape Howe. Frequent delays, caused by fog or heavy rain, prevented the taking of angular measurements from hilltops and only added to the difficulty of the terrain and the vast number of springs to investigate.⁴⁷ Set in Alpine National Park, border cairn number one marks a major instrument station Surveyor Black used to report the spring, 22.5 chains (452.6 metres)⁴⁸ northwest of Forest Hill, as the source of the Murray River. This became the westerly end-point of the boundary line.

In 1866 the Victorian Parliament deemed Townsend's marking of Cape Howe insufficient, and so in 1869, a conference was held to geodetically survey the twenty kilometres of Cape Howe, and to decide the exact position of the boundary end-point. Superintendent Ellery and Surveyor Turton represented Victorian while Surveyor General Adams, and Surveyor Allan represented NSW.⁴⁹ Ellery's legacy as a scientific pioneer is complemented by his reputation as a man of great 'intelligence, humanity and

⁴³ Alan E.J. Andrews, 'Surveyor Scott Thomas Townsend; his work in Australia, 1831-54,' 8.

⁴⁴ Correspondence from Townsend to Mitchell, 'Camp Near Mowamba,' 16th March 1836, 1

⁴⁵ Elyne Mitchell, *Discoverers of the Snowy Mountain*, 33.

⁴⁶ K.L. Chappel, *Surveying for Land Settlement in Victoria, 1836-1960*, 145.

⁴⁷ *Ibid.*, 94.

⁴⁸ Notes by P. Curnow on the 'Boundaries of Victoria.' All conversions between chains and metres calculated using 1 chain = 20.1168 metres, where 0.3048 metres = 1 foot.

⁴⁹ R.I. Grenfell, *The Victoria-New South Wales Border: From the Murray to the Pacific*, 3.

energy... [with] invaluable instrumental skill.⁵⁰ Equally respected, Adams was known to be a ‘very competent surveyor and an enthusiastic administrator.’⁵¹ The story goes that as the morning of the conference wore on and they continued their traversing and ‘strenuous’ walk,⁵² their difference of opinion was narrowed down from three kilometres, to one kilometre, and after lunch to ten chains (two hundred metres). Finally a certain point of rocks, which they called Conference Point, was decided as the end-point.⁵³ The second achievement of this meeting was Ellery and Adams’ agreement that a termination of the boundary line within five chains (one-hundred metres) of this point would be acceptable.⁵⁴

With the two end-points established by December 1869, Surveyors Black and Allan spent the first six months of their collaboration using trigonometric surveys to produce the bearings of the boundary line. From Cape Howe, Mount Kosciusko and Mount Pilot connections were made between trigonometrical stations on the Cobberas, Mount Pilot and Forest Hill. The geographical position of station number one at Forest Hill, as computed by these connections and the position of Cape Howe, made it possible to begin determining the azimuth (direction) of the line.⁵⁵ These lengthy calculations, critical to achieving accurate marking, had to be checked and rechecked.⁵⁶

The journey taken by Black and Allan in laying the boundary on the land has been described as being one of the most ‘difficult and arduous undertakings’⁵⁷ of colonial surveyors,⁵⁸ not least because, as abovementioned, the terrain is so difficult. The men returned home once every six months and with ‘no fixed hours for work... if it were necessary the work would be carried on from daylight to dark,’⁵⁹ and even worked on Christmas Day.⁶⁰ Supplying their own needs including clothing, footwear and bedding, vessels from Melbourne bought foodstuffs, ‘meat was often supplemented by shooting

⁵⁰ S.C.B. Gascoigne, ‘Ellery’ in *Australian Dictionary of Biography*, 1851-1890, 4, 135-60.

⁵¹ A.M. Jordens, ‘Adams’ in *Australian Dictionary of Biography*, 1851-1890, 3, 16.

⁵² Quote from Surveyor Allan cited in K.L. Chappel, *Surveying for Land Settlement in Victoria, 1836-1960*, 92.

⁵³ R.I. Grenfell, *The Victoria-New South Wales Border: From the Murray to the Pacific*, 3.

⁵⁴ Paul Treloar, ‘Location of the New South Wales-Victorian border,’ 9.

⁵⁵ The azimuth was calculated to be W 25 53’ 58.00”N, cited in *ibid.*, 10.

⁵⁶ R.I. Grenfell, *The Victoria-New South Wales Border: From the Murray to the Pacific*, 3-4.

⁵⁷ Correspondence from R.L.J Ellery to the Commissioner of Crowns Land Survey of Melbourne, Letter of 4th June 1870.

⁵⁸ R.I. Grenfell, *The Victoria-New South Wales Border: From the Murray to the Pacific*, 3.

⁵⁹ Cited in G.N., Benwell, ‘Tracking Turton in Gippsland,’ 123.

native animals or wild cattle.’⁶¹ The entire expenditure of the survey from November 1869 until January 1871 was £4822.7.11,⁶² which was not atypical by modern standards.⁶³ The original survey marks include Allan’s peg (placed in 1870, 1500 metres north of the Delegate River) blazed trees, mounds and stone cairns. Both surveyors dug trenches and cleared the line of vegetation to indicate the direction of the border.⁶⁴



Border cairn No. 5 (arris cairn east of Snowy River) Border cairn No. 4/4 (600m west of Snowy River)



Mound No. 9 (3km north of Delegate River township) Blaze No. 9 (3km north of Delegate River township)⁶⁵

Black and Allan received assistance from other surveying parties. In particular Surveyor Turton, a dear friend of Ellery,⁶⁶ and his Gippsland Geodetic Survey Party were involved on the boundary and also in adjacent traversing and topographic work.⁶⁷ Between August 1870 and April 1871, Turton assisted Black for eight and Allan for four months respectively. Turton Surveyors Auguste M.J. Tuxen and William Thornhill also

⁶⁰ Quote from Mommsen, *The Age*, Thursday 12th September 1985, 5.

⁶¹ G.N., Benwell, ‘Tracking Turton in Gippsland,’ 123.

⁶² Notes by P. Curnow on the ‘Boundaries of Victoria.’

⁶³ K.L. Chappel, *Surveying for Land Settlement in Victoria, 1836-1960*, 94.

⁶⁴ Chris Johnston, *National Estates Values of Land Survey Marks Project*, 53.

⁶⁵ Images taken from *ibid.*

⁶⁶ Cited in G.N., Benwell, ‘Tracking Turton in Gippsland,’ 118.

⁶⁷ K.L. Chappel, *Surveying for Land Settlement in Victoria, 1836-1960*, 146.

assisted Surveyor Allan. In arguing for the value of this work, Ellery described how low allowances meant that these survey parties ‘endur[ed] great hardships and prosecut[ed] the work often at the risk of their lives.’⁶⁸

Alexander Black was born and educated as a land surveyor in Scotland, and arrived in Port Philip on the ‘Oriental’ in December 1852. Being the height of the gold rush, Black tried his luck in the Castlemaine goldfields for twelve months before returning to Melbourne. From 1854 Black was an assistant surveyor working in Lancefield, Heathcote, central and northern Victoria, with a salary of £300. From 1860 Black was involved with the geodetic survey in northern and eastern Victoria. This led to his being involved in the boundary line work from 1869. Black was well respected for his surveying, and despite being ‘sober and cautious in outlook, he never failed to win commendation for his thorough methods, energy and competence.’⁶⁹

With the trigonometric points established, Black and his team set out along the calculated boundary line in September 1870. They cleared and marked trees, lay rock lines and constructed nine major rock cairns on the highest points of the boundary line between Forest Hill and Allan’s Peg.⁷⁰ For the eleven months that Black and his team were working, the total cost of this expedition was approximately £2000: £350 salary per year to Black from Victoria, (reasonable considering the £1,053 of other men’s wages was considered to subsistence only)⁷¹, £100 for equipment per six months, £45 for the cost of conveyance, £265 for the packhorses and £5 for their forage.⁷² His team included six to eight men, comprising a cook, foreman, experienced axe-men to clear the line, and horse-handlers. This twenty-three kilometre stretch held further challenges, including snow from Forest Hill, multiple crossings of the icy-cold Snowy River and climbing over Mount Tingaringy (or Tingy Ringy), with no flowing water between the latter two locations.⁷³ Their route was often difficult to navigate as the dense Murray Pine forest allowed a visibility of less than ten metres.⁷⁴ Black’s cairns in themselves were great

⁶⁸ Correspondence from R.L.J Ellery to the Commissioner of Crowns Land Survey of Melbourne, Letter of 4th June 1870.

⁶⁹ Joanna McIntyre, ‘Black’ in *Australian Dictionary of Biography*, 1851-1890, 3, 167.

⁷⁰ Catherine Turnbull, ‘Alexander Black – Pioneering Surveyor,’ 8.

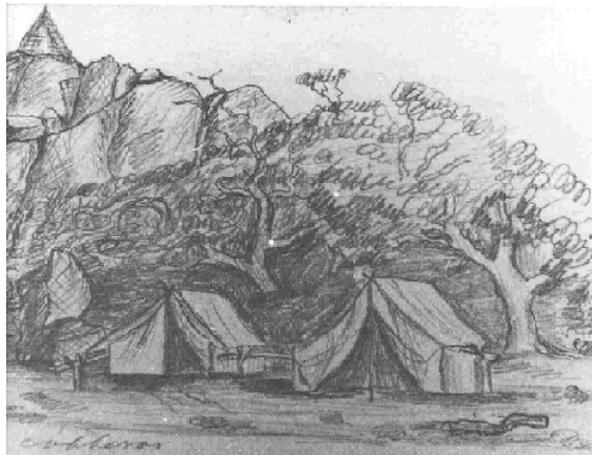
⁷¹ Cited in G.N., Benwell, ‘Tracking Turton in Gippsland,’ 124.

⁷² K.L. Chappel, *Surveying for Land Settlement in Victoria, 1836-1960*, 95.

⁷³ Rod Deakin, *Traverse*, 102, May 1987, 5.

⁷⁴ R.I. Grenfell, *The Victoria-New South Wales Border: From the Murray to the Pacific*, 5.

achievements. Particularly impressive is border cairn number two, which has a three-metre diameter, is three-metres high, and is ‘built over a granite outcrop...and a notched center pole.’⁷⁵ This is ‘one of seven four-sided pyramid of rocks bolstered with external timber stays or ‘arris’ cairns.’⁷⁶ His cairns becoming smaller along the way,⁷⁷ Black reached Allan’s peg in August 1871.



Black’s camp at the Cobberas in late 1869/early 1870 from a sketch in his field book.⁷⁸

Although Alexander Allan (1831-1901) made significant contributions beyond the geodetic survey, but perhaps because he never became Surveyor General, biographical details of his life are less easily found. From 1860, Allan was involved in work for the geodetic and trigonometric surveys in the Western districts of Victoria. Allan is particularly noted for his progress with triangulation surveys in the Portland Bay district, which allowed the remarking of the southern section of the Victoria-South Australian border in 1865.⁷⁹ Allan was also involved in measuring the highly accurate Werribee Baseline that was used as the basis for the state’s triangulation. Allan believed strongly that surveyors should use uniform systems, and tried, in vain, to induce Surveyor General Ligar into implementing this, and his other conviction that using true meridians would allow for much quicker surveys throughout the colony.⁸⁰ On a more practical level, Allan also faced the challenges of keeping wild cattle from harming his men,

⁷⁵ Rod Deakin, RMIT Surveying Department, *Traverse*, 100, November 1986, 22.

⁷⁶ Chris Johnston, *National Estates Values of Land Survey Marks Project*, 50.

⁷⁷ Rod Deakin quoted as saying, ‘Black must have been fatigued after building Number 2 because the cairns were becoming smaller and smaller,’ cited in *Traverse*, 100, November 1986, 22.

⁷⁸ Image taken from ‘Surveyor General Black,’ in *Surveying Victoria in Celebration of 150 years of Victoria’s Surveyor General 1851-2001* (CD-ROM).

⁷⁹ G.N., Benwell, ‘Tracking Turton in Gippsland,’ 125.

⁸⁰ K.L. Chappel, *Surveying for Land Settlement in Victoria, 1836-1960*, 85.

having several bullocks die of pleuro-pneumonia and thirst in the 1865 drought, not to mention the ‘bad repair’ of his equipment. Allan’s health was also poor, and on occasion he suffered bowel inflammation and hydatids, as well as bronchitis from exposure during the winter.⁸¹

For the eighteen months from February 1870 to August 1871, Allan and his party surveyed the eastern 113 kilometres of the boundary line. They began near Delegate River and surveyed to the position marked as ‘Wauka’ at Cape Howe, which effectively replaced Conference Point as the end-point.⁸² This included traversing Hensleigh Range, Mounts Tennyson, Canterbury, Merrangunegin, Buckle and Carlyle, as well as crossing the Snowy, Delegate, Genoa, Bendock, Queensborough, Genoa and Wallagrough Rivers.⁸³ Employed by the Colony of NSW, Allan received £485 per year. As markers, Allan used wooden pegs flanked by trenches dug along the boundary line for two metres in both directions. Unfortunately some pegs have rotted, and most trenches have filled with decayed matter or have been affected by digging animals.⁸⁴ Allan’s field book reports the use of a ‘one-hundred foot’ (approximately thirty metres)⁸⁵ chain for measurement, and indicates that magnetic bearings were used extensively for topographic details and reference trees.⁸⁶ Tuxen assisted in the running of this eastern end of the boundary, by checking and connecting local trigonometrical points, and on occasion ‘read angles up to twenty-four times to get the exactness desired.’⁸⁷

The surveying and marking done by Allan, although highly precise, was not as well documented as that of Black. Allan’s field notes become quite sketchy, with incorrect dates and no clear record of what markers were built. There are no recorded measurements between Mount Carlyle and Wauka, separated by a distance of ten kilometres. It therefore appears that the remarkably small variance of one chain⁸⁸ (twenty metres) between the marked end-point and Conference Point was calculated using Conference Point triangulation and not the point itself. It is possible that Allan did not

⁸¹ Ibid., 85.

⁸² Chris Johnston, *National Estates Values of Land Survey Marks Project*, 54.

⁸³ K.L. Chappel, *Surveying for Land Settlement in Victoria, 1836-1960*, 94.

⁸⁴ R.I. Grenfell, *The Victoria-New South Wales Border: From the Murray to the Pacific*, 5.

⁸⁵ From notes compiled by P. Curnow on the ‘Boundaries of Victoria,’ 1982.

⁸⁶ R.I. Grenfell, *The Victoria-New South Wales Border: From the Murray to the Pacific*, 5.

⁸⁷ K.L. Chappel, *Surveying for Land Settlement in Victoria, 1836-1960*, 94.

⁸⁸ ‘The Black-Allan line’ (pamphlet).

actually finish marking the border completely, and may have intended to build more substantial cairns.⁸⁹ The actual difference was not significant and Allan's work is still greatly praised for being 'unique in higher surveying with an almost un-hoped for precision.'⁹⁰ Ellery described the result as

'...surpassing all expectation. The result showed conclusively that not only were the elements of the earth's figures used for the calculation very near to the truth, but also that the trigonometrical survey... has been made with great accuracy and the difficult task given to Messrs. Allan and Black has been done with a precision little short of perfection.'⁹¹

Despite working with chains as measuring equipment, which Black felt were too easily affected by temperature and tensile strain,⁹² the degree of accuracy achieved was phenomenal.

After finishing the boundary project, both Surveyors Black and Allan went on to achieve in the discipline. Ellery expressed his disappointment that 'since 1872 when the boundary was completed, only one officer and party has been engaged on the geodetic survey, Messrs Allan and Black having been removed into charge... as district surveyors.'⁹³ Black became the district surveyor of Bairnsdale, acting as lands officer and collector of imposts, in 1873 was transferred to Sale and then in 1875 to the Sandhurst district.⁹⁴ Having been promoted from third to second class district Surveyor, in 1866 Black was employed as assistant to Victorian Surveyor General. Later that year Black succeeded Ligar as Surveyor General, and held this position until his retirement in 1894. In addition he held positions as president of the Victorian Institute of Surveyors, on the Water Conservatory Board, was Deputy Electoral Officer, Chairman of the Tender Board and served two Royal Commissions in giving evidence on the accuracy of his surveys. Black married Agnes Constance Guilfoyle and together they lived in Alma Rd, St. Kilda. Black retired at age sixty-five, and died in March 1897.

⁸⁹ Interview with Rod Deakin by Nadia Albert in August 2003.

⁹⁰ Quote from Paul Harcombe, cited in notes held at Office of the Surveyor General, Victoria.

⁹¹ Quote from Ellery cited in Catherine Turnbull, 'Alexander Black – Pioneering Surveyor' 7.

⁹² 'Surveyor General Black,' in *Surveying Victoria in Celebration of 150 years of Victoria's Surveyor General 1851-2001* (CD-ROM).

⁹³ Correspondence from R.L.J. Ellery to J.J. Casey, 'Geodetic Survey,' 3.

⁹⁴ Catherine Turnbull, 'Alexander Black – Pioneering Surveyor,' 8.

As an advisor, Black was greatly involved in the Royal Commission on Land Titles and Surveys, a significant step towards standardising land surveys.⁹⁵ The resulting ‘Survey Boundaries Act 1885’ recognised that ‘irreconcilable discrepancies... [existed] between titles and the boundaries of property on the ground... [resulting in lost] time of surveyors, and increased cost, as well as delay to applicants in the adjustment of boundaries.’⁹⁶ The boundaries already set on the ground were officially recognised, while future standards were ensured by enforced controls of difference allowed.⁹⁷ As the ‘system of selection before survey... can account for the near chaos condition of surveying in the late [eighteen-] sixties and early seventies,’⁹⁸ the commission also standardized the allocation of surveying licenses.⁹⁹

After the border project, Allan resumed surveying in western Victoria, but work was not always available. Political upheaval in 1877-8 saw the ‘wholesale dismissal’ from the public service, and among those officers nominally dismissed were Surveyors Black and Allan. Black continued working until officially restored to his post.¹⁰⁰ Allan was also involved in a controversy where he was accused of ‘dummying’ (acting in the interest of Western District squatters). Having been removed from the Civil Service List, and despite his contributions as a national geodetic and district surveyor, Allan had to sit a special examination to gain a position as a contract surveyor.¹⁰¹ In 1879, the ‘Allan & Tuxen’ firm was formed and the two surveyors carried out selection surveys in the Wimmera and western districts of Victoria.¹⁰² Allan also continued meridian survey work in 1880.¹⁰³ Alexander Allan died in May 1901. Mr. Thornhill and Turton also continued geodetic survey work in charge of respective parties, the latter engaged in marking out townships and government reserves. Turton was also a member of the Institute of

⁹⁵ ‘Surveyor General Black’ in *Surveying Victoria in Celebration of 150 years of Victoria’s Surveyor General 1851-2001* (CD-ROM)

⁹⁶ Royal Commission on Land Titles and Surveys, Survey Boundaries Act 885, 10th June 1885, x.

⁹⁷ *Ibid.*, xi.

⁹⁸ K.L. Chappel, *Surveying for Land Settlement in Victoria, 1836-1960*, 95.

⁹⁹ Survey Boundaries Act 885, xii.

¹⁰⁰ ‘Surveyor General Black’ in *Surveying Victoria in Celebration of 150 years of Victoria’s Surveyor General 1851-2001* (CD-ROM).

¹⁰¹ K.L. Chappel, *Surveying for Land Settlement in Victoria, 1836-1960*, 109.

¹⁰² Alan Middleton, *The Wild Dog Fence* (work in progress).

¹⁰³ *Ibid.*

Surveyors before retiring in the early 1890s to enjoy life with his five children and wife, Harriet.¹⁰⁴

From 1870 to 1980 the Black-Allan border attracted much controversy, especially the section of coast near Conference Point. The original cairn marking Cape Howe was supposedly damaged, blown up, by fisherman wishing to avoid license fees.¹⁰⁵ In 1897, Surveyor Francis J. Gregson attempted to re-establish the mark, but had his equipment destroyed. And later, in 1919 E.H. Lees rebuilt the stone cairn at Wauka, with a galvanized pipe centered over the bottom of a glass bottle placed at the time of the original survey.¹⁰⁶ In 1967 the Victorian Department of Lands and Surveys rediscovered this cairn, officially named it 'Wauka' and established it to be 180 metres West North West of Conference Point.¹⁰⁷ At this time the old cairn bottle placed by Allan at Mount Carlyle was replaced with a bronze geodetic survey plaque, two new trees were marked as the originals had rotted, and a new triangulation station was built at Mount Buckle.¹⁰⁸ In 1978 requests from the Fishery Department for better visual determination of the border from sea, led Surveyor David Vincent to erect a pillar named 'Allan' on the coast.¹⁰⁹ At this time the NSW Lands Department also placed a pillar at Wauka and put concrete pillars as markers at Mounts Carlyle and Buckle, where the cairns were in disrepair.¹¹⁰



Pillar at Wauka (Conference Point), Cape Howe¹¹¹

¹⁰⁴ G.N., Benwell, 'Tracking Turton in Gippsland,' 129.

¹⁰⁵ D.J. Taylor, *The States of A Nation-The Politics and Surveys of the Australian State Borders*, 62.

¹⁰⁶ Ibid.

¹⁰⁷ Ibid.

¹⁰⁸ D.J. Taylor, *The States of A Nation-The Politics and Surveys of the Australian State Borders*, 62.

¹⁰⁹ Ibid.

¹¹⁰ Treloar, Paul Treloar, 'Location of the New South Wales-Victorian border,' 19.

¹¹¹ Image found at www.auslig.gov.au/facts/dimensions/border/htm (Online; 12 November, 2003)

During the 1980s, several surveying parties from RMIT ventured to the Black-Allan line, and found the survey marks in varying states of disrepair. The original spring was found, but the reference trees were either dead from age or bushfires, and Wauka had been nearly undermined by shifting sand and tidal action.¹¹² As the 1913 Privy Council decision deemed that borders were not to be based on plans only, but on the original markings, the 1984 RMIT party retraced Allan's survey.¹¹³ In so doing, the RMIT team discovered that fourteen metres of East Gippsland that had been maintained by NSW, was actually Victorian land.¹¹⁴ This was not however a mistake in the surveying, but rather in the computation for the survey marks. In 1985, as a result of the work of the RMIT team, the Honourable Andrew McCutcheon (Victoria) and Honourable J.A. Crosio (NSW) placed a monument and wayside stop at the border crossing on the Princes Highway. The accompanying sign reads 'this plaque marks the position of the Victorian-NSW border as originally marked by Surveyors Black and Allan from 1870 to 1872,' thereby recognising the contribution of the two key surveyors.¹¹⁵ In 1995, NSW Department of Lands connected the border cairns nearest Wauka, Allan and the springs to geodetic survey networks of both states using Global Positioning System.¹¹⁶



Road-side monument commemorates the contributions of Surveyors Black and Allan¹¹⁷

Although originally proposed in the mid-1970s by six District Surveyors at a departmental conference, the name 'Black-Allan line' took some time to be officially recognised. Due to disagreement between the two states in amending the 1874 draft proclamation of the Black-Allan line, the line was never officially proclaimed.¹¹⁸ The

¹¹² D.J. Taylor, *The States of A Nation-The Politics and Surveys of the Australian State Borders*, 63.

¹¹³ 'The Black-Allan line' (pamphlet).

¹¹⁴ *The Age*, 12 September 1985, 5.

¹¹⁵ 'The Black-Allan line' (pamphlet)

¹¹⁶ D.J. Taylor, *The States of A Nation-The Politics and Surveys of the Australian State Borders*, 63.

¹¹⁷ Image taken from <http://www.home.earthlink.net/michaelclancy/NSWOz.htm> (Online; 12 November, 2003).

¹¹⁸ For the Draft Proclamation of Black-Allan line, 1873 see *Appendix C. Ibid.*, 62.

process became complicated when the Geographic Names Board of NSW believed that according to the Survey Co-ordination Act of 1958, a border was a notion, not a place, and thus should not be named. Further investigation found that the definition was inclusive rather than conclusive and that as a physical and cultural feature, the committee could and did in 1986, gazette the name Black-Allan Line.¹¹⁹ In 1988 the Survey Co-ordination Act, and Victorian Place Names Committee both followed suit, as did the replacement Geographic Place Names Act, 1998.¹²⁰

Still in the planning stage are measures designed to commemorate and maintain the Black-Allan line. For three months of 1986 Operation Raleigh, a program instigated by Prince Charles of Wales, worked towards photographing and recording the size of each cairn along the Black-Allan line.¹²¹ In 1993, a Project Reconnaissance expedition made sections of the Black-Allan line publicly accessible. In 2001 Chief Surveyor, Land and Property Information NSW, Paul Harcombe and Victorian Surveyor General Keith C. Bell decided to

‘determine, permanently record and provide guidance for the position, monumentation and documentation of the NSW-Victorian border. This proposal is currently in its planning stage but is envisaged to not only record the history, nature of the monumentation by photographic record, but also to accurately co-ordinate each and every monument along that border.’¹²²

Building a survey mark at Wauka, ‘able to withstand the forces of nature’¹²³ is an issue that is still to be addressed. The Victorian Office of the Surveyor General is currently acting as the Secretariat to a group of volunteer surveyors who plan to commemorate the western end of the Black-Allan line in January 2004. This expedition aims to re-establish the state corner and to formally proclaim the border. There are also proposals to rename the administrative terminal point, ‘Townsend’s Point,’ and to rename the natural springs

¹¹⁹ M. Medwell, (Secretary), 1985 Geographic Names Board South Australia. Also, AG Turk, Institute of Surveyors, Victoria, 1984.

¹²⁰ Geographic Place Names 1998 repealed Part II of the Surveyor Coordination Act 1958, which stipulated provisions of the Places Names Committee.

¹²¹ ‘Gallant Gestures on the Raleigh,’ in *The Weekend Australian*, Magazine 20, November 22-3, 1986.

¹²² Land and Property Information NSW, 2001, “New South Wales- Victoria Border Project – Draft proposal” cited in D.J. Taylor, *The States of A Nation-The Politics and Surveys of the Australian State Borders*, 63.

¹²³ *Ibid.*

by the indigenous name 'Indi.' For the sake of informed-tourism, interpretive signs and a shelter at Cowombat Flats are proposals that volunteers are also considering.¹²⁴

It is essential that the Black-Allan line be maintained to define the respective territorial jurisdiction of NSW and Victoria. Arguably more important, is the commemorating and raising awareness of the Black-Allan line as a fine exemplar of highly precise surveying in extremely difficult terrain;¹²⁵ the factors that have given this work the reputation as one of the most difficult and remarkable tasks undertaken by the colonial surveyors.¹²⁶

¹²⁴ Interview with Scott Jukes and Stuart Worn by Nadia Albert, 20th October 2003.

¹²⁵ Quote by Rod Deakin, as interviewed by Nadia Albert in 2003.

¹²⁶ R.I. Grenfell, *The Victoria-New South Wales Border: From the Murray to the Pacific*.

Biographical Note

Nadia Albert is an Arts/Science student at the University of Melbourne and completed this paper as part of her History major. Nadia has a great passion for and interest in pursuing a career in the field of public history.

For further details contact: njalbert@ugrad.unimelb.edu.au

Acknowledgements

Many thanks to Surveyor General John Tulloch, Stuart Worn, Scott Jukes, Rod Deakin, Anita Davids, Alan Middleton, David Taylor and members of staff at the Victorian Office of the Surveyor General for your generous assistance and interest in this project.

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**Appendix A: Description of the line forming part of the Boundary between
Victoria and New South Wales**

Commencing at a Spring in latitude $36^{\circ} 47' 56''.901$ S and longitude $148^{\circ} 11' 57''.752$ E deduced from the latitude of the Melbourne Observatory taken as $37^{\circ} 49' 53''.397$ S and its longitude $144^{\circ} 58' 40''.903$ E which Spring is the source of the river Murray nearest to Cape Howe thence bearing $S63^{\circ} 01' 50.58''$ E to a point on Forest Hill called Station No. 1 marked by a pile of stones nine feet high having a pole in the centre beneath which at a depth of three feet in the ground is a stone marked on the upper side thus $\underline{A} \mid \underline{B}$ the centre being a hole one inch in diameter and six $18 \mid 70$

inches deep which indicates a point in the line 22.50 chains from the Spring. This point is at a distance of 420.04 chains and bears $N 30^{\circ} 43' 18'' .09$ E from the high station on the Cobberas and 248.85 chains $S4^{\circ} 50' 00''.70$ W from the trig station on the Pilot. The pile is square at the base and built diagonally on the line. At each side of the line at this point is a large Gum tree marked on the side facing the pile the one on the north side of the line

thus NSW and that on the south side thus $\overset{\uparrow}{70} \mid \overset{\uparrow}{70}$ V. Thence

bearing south $63^{\circ} 02' 00''.32$ E the same straight line passes over the Berrqima range where at a distance of 422.16 chains from the Spring it is marked by a hole drilled in a granite rock above which is a pile similar to that of No. 1 thence bearing $S63^{\circ} 04' 53''.61$ E a continuation of the same straight line to a point on the first range east of the Ingeegoodbee Creek at a distance of 645.93 chains from the Spring where the mark is a stake driven two feet in the ground above which is a round pile of stones eight feet high thence bearing $S 63^{\circ} 06' 30''.76$ E a continuation of the same straight line to a mark on the Suggan Buggan Range distant 782.61 chains from the Spring which mark is a hole in a stone two feet below the surface of the ground above which is a pile similar to that at No. 1 thence $S 63^{\circ} 07' 30.14''$ E a continuation of the same straight line to a similar mark and pile on the east bank of the Snowy River 1134.46 chains from the Spring thence bearing $S 63^{\circ} 09' 63''.15$ E to a similar mark and pile on the range east of the Snowy River 1656.19 chains from the Spring thence $S 63^{\circ} 13' 50''.44$ E a continuation of the same straight line to the first range west of M^cKeachnie's Creek 1978.59 chains from the Spring where a mark is a hole drilled six inches deep in the solid rock beneath a pile similar to that at No. 1 thence $S63^{\circ} 16' 11''.43$ E a continuation of the same straight line to a similar mark and pile on the Tingi Ringi range 2398.12 chains from the Spring leaving

the trig station on the summit of Tingi Ringi to the right 27.759 chains from the line thence $S\ 63^{\circ}19'14''.48\ E$ a continuation of the same straight line to a point marked by a stake driven two feet in the ground beneath a pole in the centre of a round pile of stones eight feet high situated on the west side of the track from M^cLachlan's homestead to Brown's camp and distant 2764.10 chains from the Spring. Thence $S\ 63^{\circ}21'54''.68\ E$ a continuation of the same straight line to a point on the range west of the Delegate River marked by a hole drilled six inches deep in a stone sunk two feet in the ground above which is a pole in the centre of a pyramid constructed of logs of timber thence $S\ 63^{\circ}23'31''.58\ E$ to a point marked by a peg on the west side of the Delegate River 3058.92 chains from the Spring, thence in a continuation of the same straight line bearing $S63^{\circ}24'03''.90\ E$ to a point marked by a stone pile eight feet in diameter with pole and centre stone distant 3284.01 chains from the Spring: thence a continuation of the same straight line to the foot of the perpendicular to the line from the trig station on Mount Delegate 3553.73 chains from the Spring, the perpendicular being 156.333. chains in length and on the south side of the line thence $S63^{\circ}27'41''.14\ E$ to a point 3953.66 chains from the Spring marked with stone and pile similar to the last, thence a continuation of the same straight line to the trig station on Mount Tennyson 4645.39 chains from the Spring thence $S\ 63^{\circ}35'41''.75\ E$ a continuation of the same straight line to a pile of stones eight feet in diameter with pole and centre stone situated on the north side of Canterbury Peak 4997.711 chains from the Spring: thence a continuation of the same straight line to the trig station on Mount Buckle 6894.73 chains from the Spring: thence $S63^{\circ}59'18''.97\ E$ a continuation of the same straight line to the trig station on Mount Carlyle: thence $S64^{\circ}02'40''.30\ E$ a continuation of the same straight line to a point on the coast at Cape Howe marked by a conical pile of stones ten feet in diameter at base and nine feet high with marked centre stone distant 8773.37 chains from the Spring and situated in latitude $37^{\circ}30'25''.593\ S$ and longitude $149^{\circ}58'42''.436\ E$. The line has been cleared of timber and between the principal marks above described are smaller piles of stones varying in size from four to six feet in diameter having underneath a marked stone or a stake driven into the ground and these piles are so situated that from every pile at least two others are visible.

Appendix B: Chronology of events surrounding Black-Allan the boundary line

- 1770 Captain Cook claims British sovereignty for King George III over whole eastern coast of Australia
- 1787 Colony of New South Wales (*NSW*) declared
- 1827 Alexander Black born in Scotland
- 1828 NSW Surveyor General Major Sir Thomas Livingston Mitchell inducted (-1855)
- 1831 Alexander Allan born in England
- 1836 Port Phillip proclaimed open for settlement
- 1839 Land boom causes population influx Port Philip District
Sydney Council passes local Act recognising Murrumbidgee as natural boundary to the Port Phillip District
- 1842 Port Philip District within NSW is defined, with the Murray River as natural boundary
- 1846 Surveyor Townsend and party define source of Murray closest to Cape Howe
- 1851 Act of Separation creates the State of Victoria
Discovery of gold prompts public demand to ‘unlock the lands’
Victoria divided into electoral districts
- 1852 Trigonometric surveys begin in Victoria
- 1858 Geodetic survey of Colony of Victoria begins
Victorian Surveyor General Charles Whybrow Ligar inducted (-1869)
- 1860 Government abandons meridian method of geodetic survey and trigonometric survey used to complete general survey
- 1862 Surveyor Twynam re-surveys the Upper Murray-Indi springs area surveyed by Townsend
- 1866 Howitt and Wilmot inspects Cape Howe and Forest Hill and are concerned as to which state has jurisdiction over men working in gold fields

- Victorian parliament deems Townsend's marking of Cape Howe insufficient
 First trial of trigonometric survey abandoned as too slow to meet demands for land
 to for settlement
- 1868 Victorian Surveyor General Phillip Francis Adams of NSW inducted (-1886)
- 1869 Superintendent of Victorian Geodetic Survey Ellery and NSW Surveyor General
 Adams meet to decide that the boundary survey must end within five-chains from
 their chosen end-point of Conference Point
 Black defines Indi springs as the source of the Murray River
 Victorian Surveyor General Andrew John Skene inducted (-1886)
- 1870-72 Surveyors Black and Allan collaborate on marking the boundary line, with the
 assistance of Surveyors Thornhill, Turton and Tuxen
- 1874 Geodetic survey of Colony of Victoria completed
 Proclamation of Black-Allan line drafted but not finalised
- 1877 'Black Wednesday' - dismissal of many public service officers, including
 Surveyors Black and Allan
- 1879 'Allan & Tuxen' firm formed to carry out surveys in Wimmera and Western
 districts of Victoria
- 1885 Royal Commission results in Survey Boundaries Act that aims to introduce
 standards in acceptable surveying variance and qualifications for surveying licenses
- 1886 Victorian Surveyor General Alexander Black inducted (-1894)
- 1897 Surveyor Francis J Gregson attempts to re-establish survey mark at Wauka, Cape
 Howe
 Surveyor Black dies
- 1901 Surveyor Allan dies
- 1913 Privy Council decision deems that survey marks, not plans, indicate official border
- 1919 E.H. Lees rebuilds stone cairn at Wauka, Cape Howe

- 1967 Victorian Department of Lands and Survey rediscover and mark Wauka at Cape Howe, place geodetic survey plaque at Mount Carlyle and build a new trigonometric station at Mount Buckle
- 1975 High Court decides offshore boundary extends to the low-water mark
- 1978 NSW Lands Department erects pillar to make the extension of the Black-Allan line into territorial sea visible to fishermen, and also place new pillars at Wauka and Allan
- 1984 RMIT expedition to Black-Allan line follows survey done by Allan
- 1985 Monument and wayside stop placed where Princes Highway crosses the Black-Allan line to commemorate their achievement
- 1986 Geographical Names Board of NSW gazettes name 'Black-Allan' line
Second RMIT expedition to Black-Allan line
Operation Raleigh inspects entire length of Black-Allan line
- 1987 Third RMIT expedition to Black-Allan line
- 1988 Victorian Survey Co-ordination Act gazettes name 'Black-Allan' line
- 1989 Project Reconnaissance expedition makes sections of the Black-Allan line publicly accessible
- 1995 NSW Department of Lands connects border cairns nearest Wauka, Allan and Indi springs to geodetic survey networks of both states using Global Positioning System.
- 1998 Victorian Geographic Place Names Act re-gazettes name 'Black-Allan' line
- 2001 Victorian Register of Geographic Names includes Black-Allan line
- 2003 Plans exist to commemorate the western end of the Black-Allan line, to rename border cairn number one as 'Townsend's Point' and the Forest Hill springs as 'Indi Springs,' and to erect a shelter at Cowombat Flats and well as interpretive signage

Appendix C: Draft Proclamation of Black-Allan line, 1873

This Indenture made this AD 1877 Between His Excellency Sir Hercules George Robert Robinson Knight Grand Crofs of the Most Distinguished Order of St Michael and St George Governor and Commander in Chief of the Colony of New South Wales and its Dependencies and Vice-Admiral of the same and with advice and consent of the Executive Council of the said Colony of the one part and Sir George Ferguson Bowen Knight Grand Crofs of the Most Distinguished Order of St Michael and St George and Commander in Chief of the Colony of Victoria and Vice Admiral of the same by and with the advice and consent of the Executive Council of the said Colony of Victoria of the other part.

Whereas by the Act of the Imperial Parliament made and passed in the 14th year of the reign of Her Majesty Chap.59 entitled “An Act for the better Government of Her Majesty’s Australian Colonies”. It is amongst other things enacted that the territories therein described as bounded on the North and North East by a straight line drawn from Cape Howe to the nearest source of the river Murray and thence by that course of that river to the eastern boundary of the Colony of South Australia should be erected into a separate colony to be known and designated as the Colony of Victoria.

And whereas by an Act of the said Parliament made and passed in the 25th year of the said Reign of Her Majesty Chap 44 entitled “An Act to remove doubts in respecting in authority of the Legislature of Queensland and to annex certain territories to the Colony of South Australia and for other things” it is amongst other things enacted that it should be lawful from time to time for the Governors of any contiguous colonies on the continent of Australia with the advice of their respective Executive Councils by any instrument under their joint hands and seals to determine or alter the common boundaries of such Colonies and the boundary described in any such instrument should be deemed to be within the limits there laid down the true boundary of the said Colonies so soon as Her Majesty’s approval of such instrument should have been proclaimed in either of such Colonies by the Governor thereof.

And whereas it is deemed expedient to determine and set out the true boundary of the said Colonies of New South Wales and Victoria from Cape Howe to the nearest Source of the river Murray.

Now therefore the parties hereto do hereby determine that the straight line described in the Schedule hereto and which is a straight line from Cape Howe to the nearest source of the River Murray shall be the common boundary between the Colonies of New South Wales and Victoria so far as the straight line extends.

In Witness whereof His Excellency Sir Hercules George Robert Robinson and His Excellency Sir George Ferguson Bowen have with the advice of their respective Executive Councils hereunto set their hands and seals to this instrument in writing.