

The “Major Jackson’s Transvaal and Natal Series” of the Anglo-Boer War (1899–1902): A Cartobibliographic Framework

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Abstract The Anglo Boer War (also known as the South African War) was fought between the two Boer Republics (the South African Republic or Transvaal, and the Orange Free State) and the British Empire from October 1899 until May 1902. Soon after Pretoria was occupied by British forces in June 1900, the Head of Topography of the local Field Intelligence Department, Major H.M. Jackson, commenced with the compilation of a map of the South African Republic and Natal to supersede the inadequate IDWO 1367 and *Imperial Map*. This new map, known as the Major Jackson’s or First Transvaal Series, was compiled on a scale of 1:148,752 (1,000 Cape roods or 2.34 miles per inch) and covered the whole of the Transvaal Republic, northern Natal, Zululand and Swaziland, and the western part of British Bechuanaland. Cartographically it is a fine example of a compilation map executed *de novo* for military purposes under conditions of extreme urgency in a foreign area devoid of a trigonometrical base. The compilation was done from available farm and mining surveys as corrected and supplemented by information gathered by the No 1. Survey Section which was sent to South Africa by the War Office, and various officers in the field. The method of reproduction used was lithography, and subsequently photolithography. By December 1900 the whole series was completed and during the ensuing months most of the sheets were repeatedly revised, many as much as up to six or seven times. Initiated to serve urgent military demands, the publication of the series was discontinued after the cessation of hostilities. This paper documents the progress of the survey, compilation and reproduction of the Major Jackson’s Series by using surviving maps and other archival material in South Africa and the UK.

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1 Introduction

The Major Jackson's series was one of a number of map series produced by the British forces during the War. The maps took their name from Major Hugh Milbourne Jackson, RE who served in South Africa as Head of Topography for the Field Intelligence Department and acted as Surveyor General of the Transvaal Colony from 1902 to 1905 (Fig. 1). Historically the series is of interest as it represents the maps most commonly used in combat situations. Cartographically the series represents a type of map which was produced in Africa during the late nineteenth and early twentieth centuries in areas where no trigonometric control system existed. To fully understand the provenance and significance of the Major Jackson's series, it is necessary to first consider the context within which the maps originated.

By 1899 South Africa was, as far as large-scale mapping was concerned, still unmapped. Although the Orange Free State and the Transvaal each had a Surveyor General since 1876 and 1866 respectively, these officers dealt solely with cadastral matters. Surveyors General of the two Republics had no tradition of topographical mapping and made no concerted effort to obtain large-scale maps of their countries.

Fig. 1 Major HM Jackson
(1858–1940)



With the exception of a few small-scale maps compiled before the war by a number of government officials for administrative purposes, the Boer forces entered the war without any significant official maps or cartographic material. Indeed, it was reported that some of the maps compiled by the British were reproduced by the Boers for their own use (Royal Commission 1903, Report Cd 1789: 160; Royal Commission 1903, Report Cd 1790: §712–30, §4994–5019, §10615–1062).

When war was declared, the Cape had been a British colony since 1804 and Natal since 1848. During this period Britain did not undertake any large-scale mapping of the interior with the result that by 1899 the available maps were “with perhaps one exception, very incomplete and unreliable” (Royal Commission 1903, Report Cd 1789: §261). The reason for this was that the surveying and mapping of all self-governing colonies was regarded by the Imperial Government as a domestic matter to be catered for by the colonial governments themselves. The colonies were expected to finance their surveys out of current revenue and to produce their own maps. The fact that many survey departments were ill-provisioned and understaffed, and that colonies did not regard detailed topographical maps for military purposes a necessity in the earlier stages of their development, were not taken into account. Neither was it considered that many colonies might not have felt under an obligation to provide for the military necessities of the Empire (Amery 1909: 350).

2 Mapping Before the War

During the period immediately preceding the war, the state of tension between Britain and the two republics made it impossible for British intelligence officers to undertake any surveying and mapping in either the Orange Free State or the Transvaal. The best Britain could do was to produce so-called “compilation maps” from whatever survey, cartographic and topographical material were available and to supplement these with sketches and traverses from various sources such as boundary, mining and railway surveys, military reports and reconnaissance surveys, as well as the oral accounts of transport drivers and commercial travellers. In 1903 the Royal Commission on the War noted: “The [Intelligence] Department was in possession, during the period 1896–1899, of all map material of all parts of South Africa affected by the war, which was known to exist, either in the shape of published maps and sketches, unpublished surveys and plans, and MS work. Every attention was given to the compilation of this information into map form” (Royal Commission 1903, Report Cd 1789: p. 160).

The first compilation map produced by Britain was the 28-sheet IDWO 1367, *Transvaal and the Orange Free State* on a scale of 1:250,000 which was published at the advent of the war in 1899 (see Fig. 2). The compilation took place at the War Office under the supervision of Major SCN Grant, RE. The maps depicted railway lines, wagon roads and tracks, the drifts over rivers and streams, some important place names and the most important watering places. No farm boundaries or farm names are shown as the British Intelligence Service had at that stage

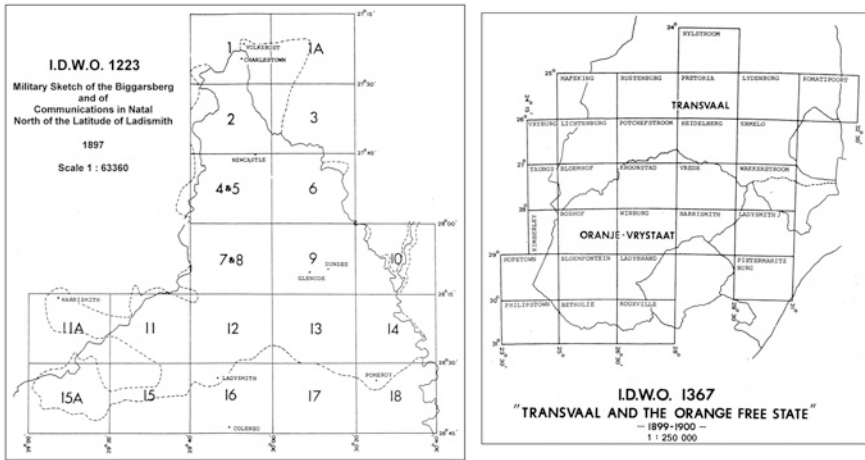


Fig. 2 Key maps of IDWO 1223 of Northern Natal and GSGS 1367 of the Transvaal and Orange Free State

no access to the existing cadastral information of the two Boer republics. The relief features are sketchily depicted by means of hachures.

As Natal was a British Colony, the railway line from Durban to the Witwatersrand, which runs through northern Natal, was of great strategic importance. Britain had not forgotten the defeat it suffered at Amajuba in February 1881 during the First War of Independence against the Transvaal, and already in 1896, half a mapping section under Major SCN Grant, RE was sent to Natal where it was used for compiling a military sketch map (IDWO 1223) on a scale of 1:63,360 of the area to the north of Ladysmith (see Fig. 2). The maps were not suitable for strategic purposes, but far better than any other map that was available at the time.

3 Organisation of Survey and Mapping

The British national mapping organization, the Ordnance Survey, was founded in 1791 and by the end of the nineteenth century the British Army already had a proud tradition of scientific survey and mapping. By this time it was also generally accepted that maps were indispensable in a situation of war. The result was that the Ordnance Survey was also in charge of the Intelligence Department of the War Office. Military surveyors serving in the British army belonged to the corps of Royal Engineers and all maps of overseas areas published during this period were issued under the serial number IDWO, designating the Intelligence Department, War Office. A unique IDWO number was allocated to each map in the order in which it was issued. Maps printed and issued in South Africa by the local Field Intelligence Department during the war were designated FID.

When the war commenced, Britain immediately took steps to try and remedy the shortage of suitable campaign maps by despatching survey and mapping sections to South Africa to serve under the Director of Military Intelligence. A survey section normally consisted of an officer and six to eight specially trained non-commissioned officers and men, while a mapping section consisted of one officer and between five and ten non-commissioned officers and men. In some cases civilian draughtsmen and surveyors were also attached to a mapping section. A survey section normally carried out the actual surveying work, while a mapping section compiled maps based on either the work of the survey section, or on other available sources. The mapping sections were also responsible for editing, printing and issuing the final maps. This division of work was not always rigidly adhered to during the war as survey sections frequently functioned as mapping sections, and *vice versa* (Amery 1909: 351–2).

The No 1 Survey Section under the command of Captain CF Close, RE arrived in Cape Town on 3 February 1900, whereas the No 2 Survey Section (under the command of Captain PH du P Casgrain, RE), arrived in South Africa in April 1900. The mapping sections which were eventually stationed at Pretoria, Bloemfontein and Cape Town, had their origins in two “half” mapping sections. The first “half” section, under Major SCN Grant, RE, which based itself in Natal in 1896, has already been referred to. The second “half”, commanded by Major HM Jackson, RE, arrived in Cape Town in November 1899. After producing valuable route sketches and reconnaissance work in the Cape Town area, Jackson joined the Third Army Division at Sterkstroom in the north-eastern Cape Colony. When Field-Marshal Roberts began to advance on the Orange Free State and Transvaal from Cape Town in February 1900, Jackson, who had in the mean time been recalled to Cape Town, joined the main force. The No 1 Survey Section under Close which had been working in the Northern Cape, also accompanied Robert’s ranks and, together with Jackson, undertook valuable survey and mapping work along the Cape-Kimberley railway line. In April 1900 Jackson’s Mapping Section joined Close’s Survey Section and the main force at Bloemfontein and together the two sections did some surveying and mapping there and at Kroonstad. When Close contracted enteric fever and was invalided back to England, Jackson took over the command of No 1 Survey Section and escorted the combined Sections to Pretoria (Watson (reprinted 1954): 191–192; Jackson and Casgrain 1903: 10–11).

4 Early Mapping During the War: The Imperial Map

Once the war was underway and the Orange Free State and the Transvaal occupied by British forces, it was the Offices of the respective Surveyors-General which yielded the most information for mapping purposes. Similar to their counterparts in the Cape Colony and Natal, the Surveyors General of the Orange Free State and the Transvaal had built up a considerable body of cadastral information since

their inception. The title diagrams filed with them were the most authoritative cartographic source material available and once the governments of the two republics were taken over by the invading forces, these diagrams were fitted together like the pieces of a jigsaw puzzle into makeshift compilation maps.

In March 1899 an agreement was entered into between the mapping branch of the Field Intelligence Department in Cape Town and a surveying firm, Messrs JT Wood and AA Ortlepp, for the production of a compilation map of the Transvaal and Orange Free State (Fig. 3). This map series was known as the *Imperial Map of South Africa* and was compiled hastily from a variety of sources. In January 1901 Major PH du P Casgrain who was in charge of the No 2 Survey Section and mapping section in Cape Town, took over from Messrs. Wood and Ortlepp and proceeded with the compilation of the *Imperial Map of the Cape Colony* on the same scale. Although an improvement on IDWO 1367, the Imperial Maps were also inaccurate and their crude representation of the hydrological and relief features made them unsuitable for strategic planning purposes. Their main merit was that they showed farm boundaries and provided the map user with a vast number of place names (Board 2004).



Fig. 3 Imperial map of South Africa

5 Major Jackson's Transvaal and Natal Series

Soon after Pretoria was occupied in June 1900, Jackson was appointed Head of the Topographical Branch of the Field Intelligence Department (FID). Realising that the *IDWO 1367* as well as the Imperial Map series were inadequate for war purposes, he decided to compile a new series on a scale of 1:148,752 (1,000 Cape rods or 2.34 miles per inch) which would cover the whole of the Transvaal, the northern part of Natal, Zululand, Swaziland, and the part of Bechuanaland bordering onto the Transvaal. The compilation would be done by the Mapping Section stationed in Pretoria from the farm and mining surveys of the South African Republic and Natal as corrected and supplemented by information gathered by the No 1. Survey Section and various military officers in the field.

Jackson's map series, also known as the First Transvaal Series, was initially designed to consist of 62 sheets of irregular size (see Fig. 4). Sheet no. 58 (Olifant's River) was never issued, and 10 sheets (38 B to 38 M) covering southern

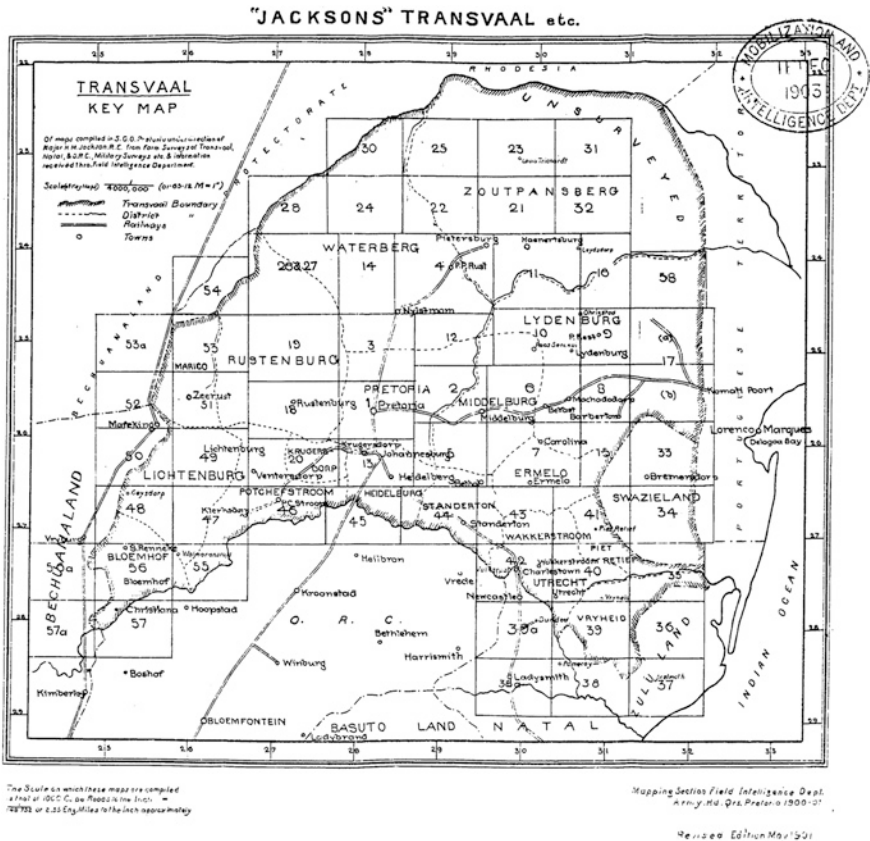


Fig. 4 Key map of "Jackson's Transvaal" published by the FID in 1901

Natal were later added which brought the total to 71. The two sheets straddling the Limpopo River in the extreme north (nos. 29 and 29A) which appear on some later Key Maps were also not issued.

The sheet lines were not fixed according to the geographical grid but presumably followed the Cassini-Soldner ‘spheroidal rectangular’ projection. The Cassini-Soldner system was used by both the South African Geodetic Survey of the Cape Colony and Natal (1883–1892), and the Natal Secondary Triangulation undertaken by August Hammar during the last decade of the nineteenth century (Simpson 1989: 116; Mugnier 2012: 913). No lines of latitude and longitude appear on the Jackson maps and if it was not for the small Key Map in the margin, it would have been difficult for the user to know where a specific sheet fitted into the overall picture.

5.1 *Compilation*

The British forces had suffered heavy defeats in December 1899 and January 1900 and providing reliable maps to the field forces was a matter of the utmost priority. Compilation on the First Transvaal Series started as early as June 1900 and was diligently pursued until February 1901 when the last sheet was completed. With the exception of the Natal, sheets and maps which bordered on Natal and neighbouring states such as the Orange Free State, Swaziland and British Bechuanaland, all maps were compiled from farm surveys in the Office of the Surveyor General of the Transvaal. The Natal sheets were compiled in Pietermaritzburg by the Surveyor General of Natal and, where necessary, the cadastral information pertaining to the Orange Free State was provided by the Surveyor General in Bloemfontein.

As the farm surveys were of variable quality (see Fig. 5), the maps had no pretence to be accurate. Many sheets carry a notice that all heights except those of railway levels are inaccurate, as well as a warning that “143 feet should be subtracted from all heights in this sheet”. The reason for this systematic error is unclear. Relief features were transferred from survey diagrams and as the accuracy and quality of the latter depended entirely on the ability and artistry of the surveyor who originally performed the survey, this information was often sketchy and in many cases incomplete (see Fig. 6).

After inspecting the relevant diagrams, the best the compilers could do was to depict the actual and supposed relief features by means of form lines. Areas that had not been surveyed prior to compilation were left blank (see Fig. 7) and in many cases the formline patterns were left incomplete (see Fig. 8). Several maps also mention that farm boundaries shown by broken (pecked) lines are from inspection plans which are not reliable. After the war Jackson wrote of this exercise: “... maps so prepared, not based on any topographic survey, must always include much information of unequal or doubtful value, even if it is not positively misleading. The best that can be said of them is that they were issued *faute de mieux*, and that the utmost was done with the means at disposal to improve them” (Jackson 1906: 276).

Fig. 5 Example of a survey diagram used for compilation



The survey diagrams which were used for the map sheets of northern Natal and Zululand were supplied by the Surveyor General of Natal. Compilers working on the Natal sheets and those which straddled the Transvaal-Natal border also made use of Grant’s 1896 survey of northern Natal. In the case of Swaziland, information was gleaned from boundary surveys and Miller’s sketch map of Swaziland (Masson 1989). Alistair Miller was a journalist and businessman who lived in Swaziland and served as an Intelligence officer with the British forces during the war. For map sheets bordering on British Bechuanaland, information was obtained from the relevant Surveyor General.

Although they were more involved with the revision of the First Transvaal Series, once the maps were published, the No 1 Survey Section initially also contributed to the compilation of the maps. On their arrival in Pretoria in June 1900, they carried out a topographical survey on a scale of 2 inches to 1 mile of an area of about 180 square miles around Pretoria. The resultant map was printed and the survey results used in the compilation of the Pretoria sheet (sheet no. 1 in Fig. 4).

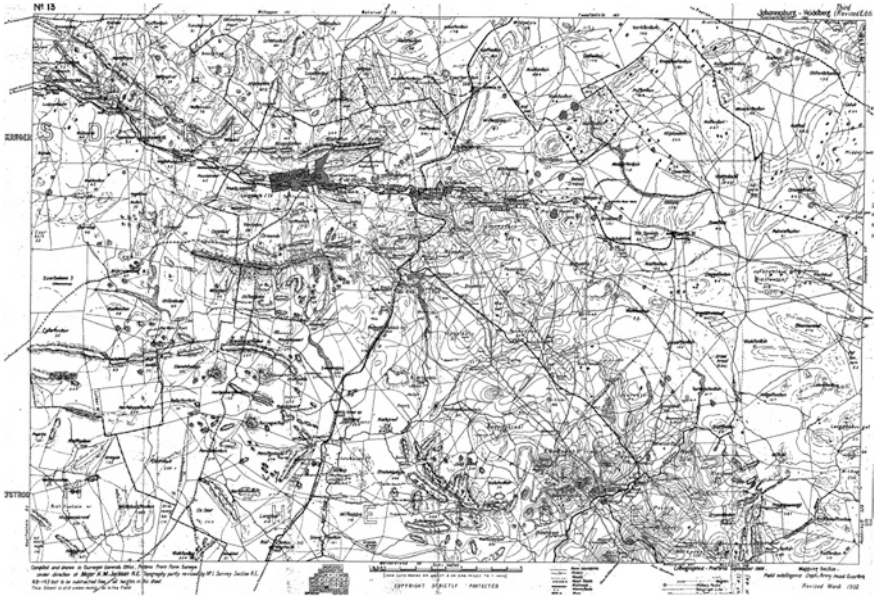


Fig. 6 Sheet 13 (Johannesburg-Heidelberg)

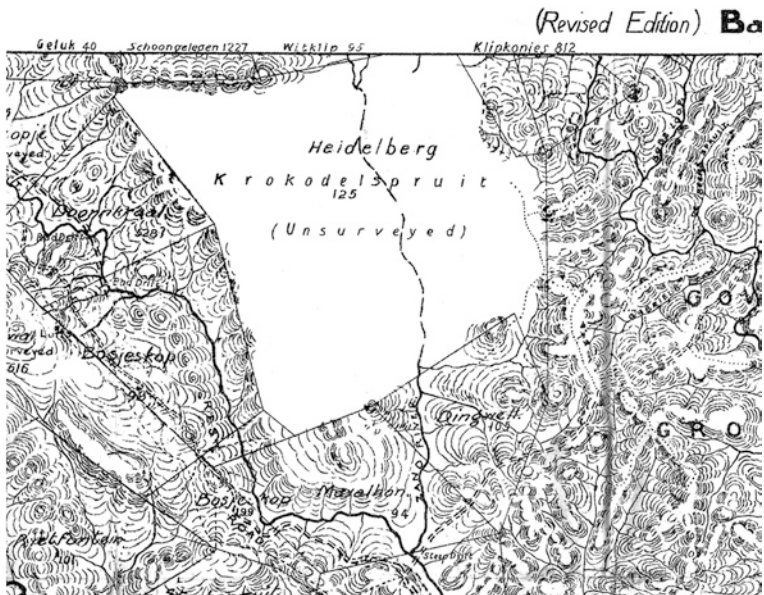


Fig. 7 Detail from sheet 8 (Barberton)

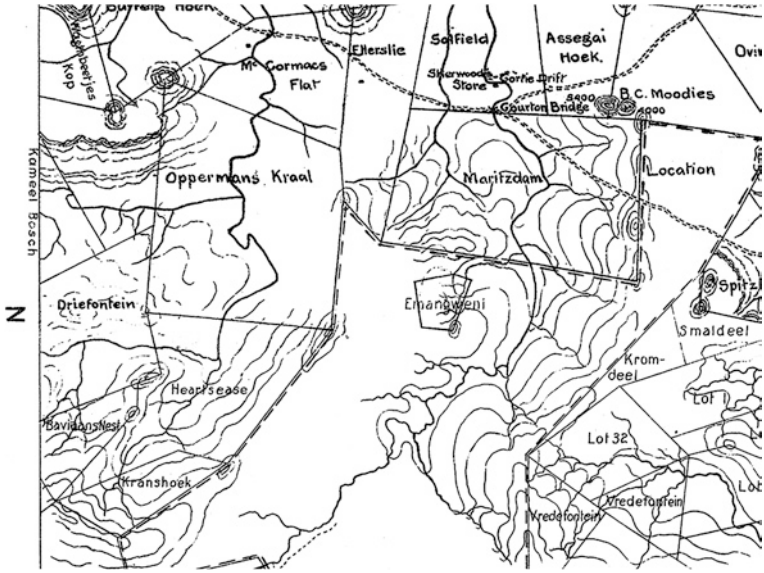


Fig. 8 Detail from sheet 38A (Ladysmith)

A local map which was of inestimable value during the compilation process was Jeppe’s map of the Transvaal of 1899 on a scale of 1:476,000 (Carruthers 2003) (see Fig. 9). Friedrich Jeppe was a German immigrant who became Postmaster General of the Transvaal and later worked as Chief Draughtsman in the Office of the Surveyor General. He was a pioneer cartographer and in his private capacity published the first map of the Transvaal in 1868. His map of 1899 was published in Switzerland and confiscated by the British who considered it the best map of the South African Republic at the time. That Jeppe’s 1899 map would be consulted was logical as it was the only map to date which depicted cadastral information as well as relief.



Fig. 9 Detail from sheets 4 and 5 of Jeppe’s 1899 map

By December 1900 the compilation of the Transvaal sheets of the Major Jackson's series was completed. The compilation of the Natal sheets which depended on farm surveys provided by the Surveyor General of Natal, lagged behind, but was finalised by May 1901. From the small Key Maps printed in the margins of the Transvaal sheets and a Key Map published by the FID in May 1901 (see Fig. 4), it can be inferred that Jackson's initial idea was to map only the northern part of Natal. Further evidence of this decision is that the First Edition of the Ladysmith sheet (no. 38A) which was published in July 1901 only covered Natal as far south as Estcourt (29° South). However, a Key Map printed by the end of the war (see Fig. 10), shows that Natal was eventually covered in its entirety—the maps of the northern area compiled by Major Jackson in Pretoria, and those of southern Natal by the Surveyor General of Natal in Pietermaritzburg. On the revised Ladysmith sheet issued in February 1902, the country south of Estcourt had been visibly added to the mapped area.

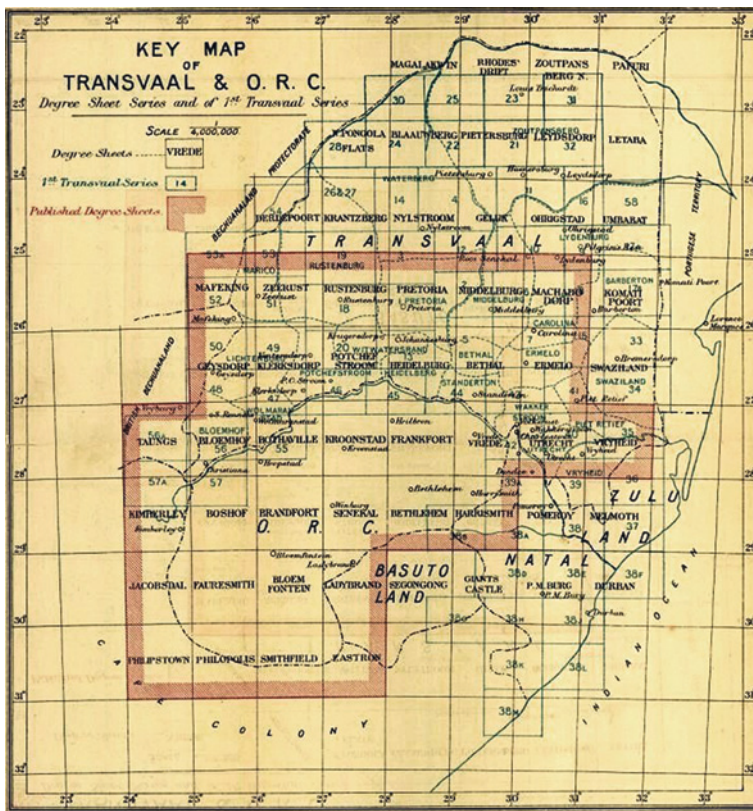


Fig. 10 Key map published after the war

5.2 *Reproduction*

The first sheets were published in July 1900 and by the end of that year 21 sheets were published (see Fig. 12). In 1900 the war north of the Vaal River was mainly fought towards the Eastern and Northern Transvaal and the sheets which were printed were those which pertained to the Pretoria-Johannesburg area, as well as the maps which depicted the railway lines to Delagoa Bay and Durban, and the main road northwards to Rhodesia.

The maps which were issued until January/February 1901 were reproduced by lithographic means, i.e. the compilation was transferred to a lithographic stone and from there directly printed onto paper. After February 1901 the preferred method of reproduction was photolithography, and later photozincography, which made provision for the transfer of the compilation onto a lithographic stone or a metal plate by means of a photographic process. All maps were printed in monochrome. During the early stages of the War, thick linen-backed paper was used but, as supplies ran out, more inferior paper types had to be used (Jackson 1900: 10). The map sheets were then folded into pocket or booklet size in such a way that large areas could be read without completely unfolding the map (see Fig. 11).

Although the maps of the First Transvaal Series were all printed in Pretoria, No 1 Survey Section also made use of printing facilities which could be operated in the field (see Figs. 13 and 14). This equipment was used throughout the war to produce maps and sketches which in all probability assisted with the checking and revision of the Transvaal maps (Jackson and Casgrain 1903: 23–24; Jackson 1906: 283–284).

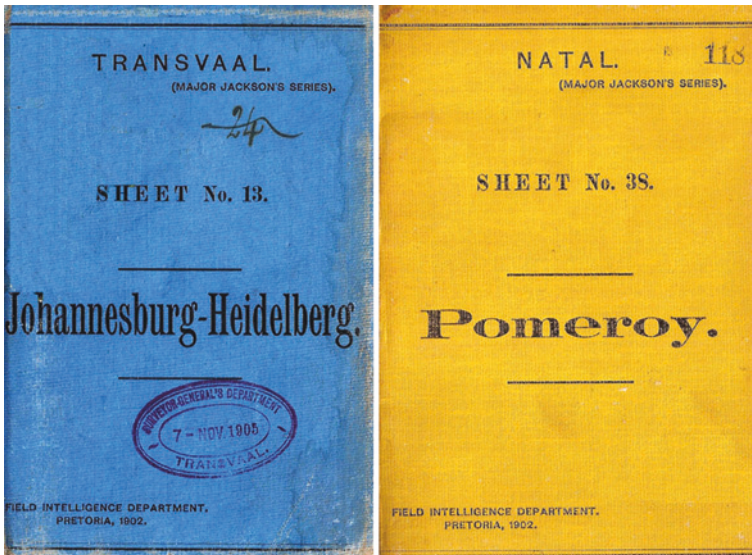


Fig. 11 Examples of maps folded in booklet form

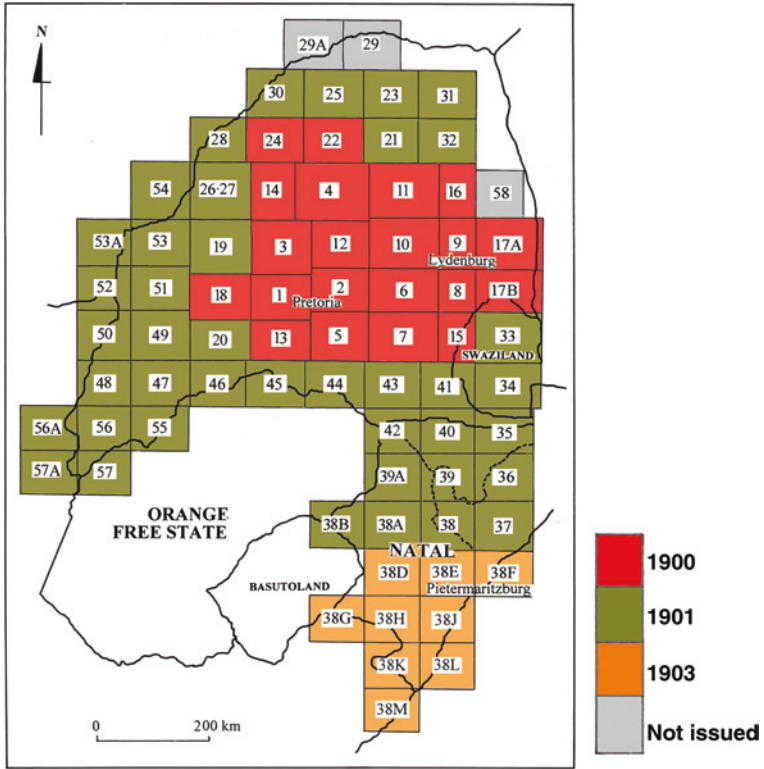


Fig. 12 Publication of first editions

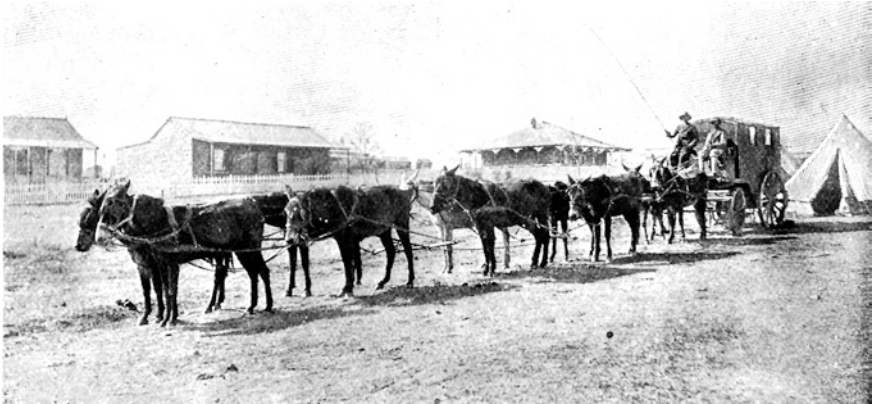
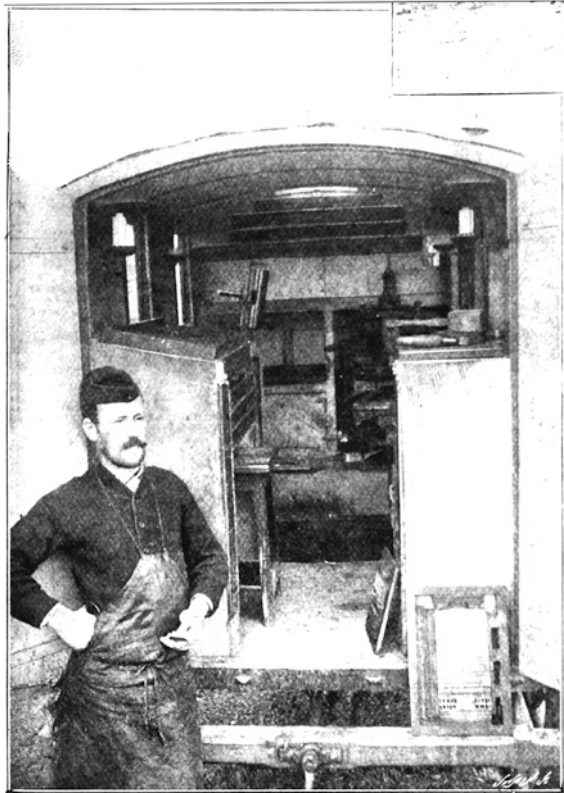


Fig. 13 Mule wagon used to transport survey and mapping equipment

Fig. 14 Custom-made wagon used to lithographically print maps in the field



5.3 Lettering and Symbolization

The lettering on the maps was done manually and therefore varies from one sheet to the next. On many maps different hands can be detected as the map passed from one edition to the next.

The Anglo Boer War was a war fought on horseback and one would have expected Jackson’s maps to acknowledge this fact. Later maps published by the War Office indicate for instance types of grazing, the provision of water, the availability of firewood, the locations where rivers and streams were fordable on horseback, etc. (Liebenberg 1997; Board 2009). Jackson’s maps are, however, devoid of such special features and the conventional signs depicted are the same as those which could be expected on any topographical map (see Fig. 15).

5.4 Revision

The first sheets of the Major Jackson’s Series were published long before the compilation of the entire series was completed whilst the revision of existing sheets

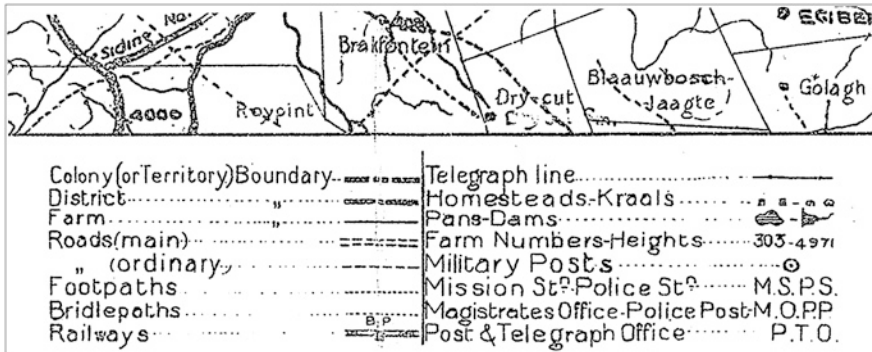


Fig. 15 Legend used on all maps sheets

had already begun in February 1901. A situation which contributed to this was that by December 1900 survey work in the field became almost impossible due to the presence of Boer forces. As the demand for compiled maps was increasing by the day, Jackson decided to put a stop to field surveys and rather apply the services of the No 1 Survey Section towards the compilation of outstanding sheets and in the revision of the existing ones (Jackson and Casgrain 1903: 11). The continuous revision of the series was performed diligently until the cessation of hostilities in May 1902.

By May 1901 the situation in a large part of the Transvaal had improved to such an extent that surveyors could be sent into the field once again. The result was that approximately 3,000 square miles of reliable topographical survey could be performed and the results incorporated into new sheets (Jackson and Casgrain 1903: 11). That the topography on the ground was partly revised by the No 1 Survey Section, is acknowledged in the margin of the following sheets: No.1 (Pretoria), No. 20 (Ventersdorp), No. 47 (Klerksdorp), No. 55 (Wolmaransstad) and No. 56A (Taungs).

Revision also took place after the accuracy of maps had been tested in combat situations and omissions or errors reported to the Field Intelligence Department. Many sheets passed through as many as six or even seven editions with each edition being a slightly corrected and updated reprint of the previous one. Compiling a list of the various editions (see Table 1) was problematic as the various sheets do not mention which editions they represent, but merely depict a date such as September 1901 on which the sheet was revised. In order to trace the number of revisions which might have preceded this date, the sheet in question had to be compared to the same sheet in as many other collections as possible (see Fig. 16).

For the purposes of this article, the map collections of the following institutions (with the number of sheets in brackets) were researched: National Archives of South Africa (99); National Library of South Africa (Pretoria) (109); Cullen Library, University of the Witwatersrand, Johannesburg (33); Merensky Library, University of Pretoria (57); Chief-Directorate of National Geo-Spatial Information, Cape Town (64); British Library, London (12); Royal Geographical Society, London (67); and the Bodleian Library, University of Oxford (62).

Table 1 The Major Jackson's series: dates of compilation, publication and revision of sheets

Sheet no and name	Comp	Publ	1st Rev	2nd Rev	3rd Rev	4th Rev	5th rev	6th rev	7th rev
1 Pretoria	Jun-00	Aug-00	Apr-01	Sep-01	Apr-02	Jun-02			
2 Pretoria-Middelburg	Jun-00	Aug-00	Apr-01	Jun-01	Aug-01	Sep-01	Jan-02	Mar-02	
3 Hartingsburg (Warm Baths)	Jun-00	Sep-00	Apr-01	May-01	Jul-01	Nov-01	Mar-02	May-02	Jun-02
4 Nylstroom-Pietersburg	Jul-00	Jul-00	Jul-01	Nov-01	Jul-02				
5 Bethal	Jun-00	Sep-00	Feb-01	Apr-01	Jul-01	Sep-01	Nov-01	Feb-02	Jun-02
6 Belfast, Machadodorp, Dullstroom	Jun-00	Jul-00	Feb-01	May-01	Dec-01	Jan-02	Feb-02		
7 Ermelo-Carolina	Jul-00	Aug-00	Apr-01	Jul-01	Sep-01	Nov-01	Feb-02		
8 Barbeton	Jul-00	Aug-00	Jul-01	Nov-01	Feb-02	Apr-02	May-02	Jun-02	
9 Ohrigstad-Pilgrimsrest	Jul-00	Aug-00	Jul-01	Nov-01	May-02	Jun-02			
10 Lydenburg	Aug-00	Aug-00	Jul-01	Nov-01	Feb-02	Jun-02			
11 Leydsdorp	Aug-00	Sep-00	Apr-01	Jun-01	Oct-01				
12 Springbok flats (Bluidefontein)	Aug-00	Aug-00	Feb-01	Jul-01	Sep-01	Feb-02			
13 Johannesburg-Heidelberg	No dates	Sep-00	Apr-01	Oct-01	Mar-02				
14 New Belgium Sand River Poort	Aug-00	Sep-00	Jun-01	Oct-01	Mar-02				
15 Steynsdorp	Jul-00	Aug-00	May-01	Sep-01	Feb-02	Apr-02	May-02	Jun-02	
16 Selati	Aug-00	Sep-00	May-01	Oct-01					
17A Pretoriuskop	Sep-00	Sep-00	Jul-01						
17B Komatipoort	Aug-00	Sep-00	Jul-01	Feb-02					
18 Rustenburg	Oct-00	Dec-00	Jun-01	Mar-02	May-02	Jun-02			
19 Piland's berg	Oct-00	Jan-01	Mar-02	Jun-02					
20 Ventersdorp	Oct-00	Feb-01	Sep-01	Mar-02	Jun-02				
21 Woodbush	Nov-00	Oct-01							
22 Matatalas	No dates								
23 Louis Trichardt	Nov-00	Oct-01	Jun-02						
24 New Belgium (North)	No dates								
25 Blaauwberg	Nov-00	Oct-01	Jun-01	Jul-01					
26&27 Kranzberg	Nov-00	Jun-01	Oct-01	Mar-02					

(continued)

Table 1 (continued)

Sheet no and name	Comp	Publ	1st Rev	2nd Rev	3rd Rev	4th Rev	5th rev	6th rev	7th rev
28 Zoutpan	Nov-00	Sep-01	Jun-02						
29 Zoutpansberg	not issued								
29A	not issued								
30 Bugelpan	Nov-00	Jun-01	Oct-01	Mar-02	Jun-02				
31 Pafuri	Nov-00	Oct-01	Jun-02						
32 Birthday (Klein-Letaba)	Nov-00	Oct-01	Jun-02						
33 Part of Swaziland (North)	Dec-00	May-01	Jun-01	Apr-02	May-02				
34 Bremerdsorp	Dec-00	May-01	Jun-01	Nov-01	Feb-02	May-02			
35 Part of Swaziland, Vryheid, etc.	Feb-01	May-01	Sep-01	Feb-02					
36 Part of Zululand (West)	Feb-01	May-01	Sep-01	Nov-01					
37 Melmoth	Mar-01	Jun-01	Sep-01	Oct-01	Nov-01	Feb-02			
38 Pomeroy	Feb-01	Jun-01	Jul-01	Sep-01	Feb-02				
38A Ladysmith	Mar-01	Jul-01	Feb-02						
38B Upper Tugela	No dat	Oct-01							
38D Pietermaritzburg W	No dates								
38E Pietermaritzburg E	No dates								
38F Lower Tugela	No dates								
38G Natal border of Basutoland	No dates								
38H Richmond	No dates								
38J Durban	No dates								
38K Harding	No dates								
38L Port Shepstone	No dates								
38M	No dates								
39 Nqutu	Jan-01	May-01	Jul-01	Sep-01	Nov-01	Feb-02			
39A Dundee	Feb-01	Apr-01	Jul-01	Feb-02					
40 Utrecht-Vryheid	Jan-01	May-01	Sep-01	Feb-02					

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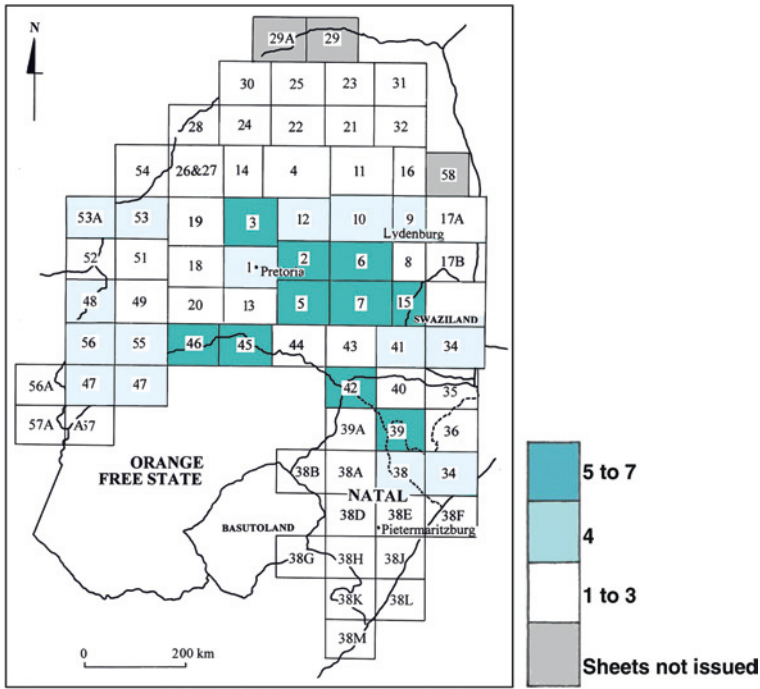


Fig. 16 Number of revisions

6 Conclusion

The development of the Major Jackson Series was an innovative response by the British military authorities to a demand for accurate topographic mapping which they themselves could not fulfil to professionally acceptable standards. Although the maps had many defects, a few positive characteristics resulted in some of them being quite useful for military purposes. They were also used throughout the duration of the war. A redeeming factor contributing to their usefulness was that the work of the No 1. Survey Section was incorporated in the revision of the series. Another was that the Transvaal farm surveys were not only more recent, but from a topographical point of view also better than the older surveys of the Cape Colony and the Orange Free State (Jackson 1906: 276).

Although the publication of the First Transvaal Series was discontinued after the peace treaty was signed on 31 May 1902, the work it entailed was not all in vain. Due to the persuasive power of Her Majesty's Astronomer at the Cape, Sir David Gill, the Geodetic Survey of the Transvaal and Orange River Colonies was executed from 1902 to 1905. Jackson recognised in this scheme the opportunity to issue more accurate maps of the Transvaal and already in January 1901 commenced with the revision of the First Transvaal Series according to new sheet lines which would be connected to the Geodetic Survey (Jackson and Casgrain 1903: 12). This new series,

called the “Second Transvaal” or “Degree Sheet” series, was completed by 1909 and was the only maps available of the Transvaal until the 1940s.

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Elri Liebenberg studied at the University of the Orange Free State (SA), the University College of Swansea (UK), and the University of South Africa (Unisa). In 1967 she was appointed to the staff of Unisa; in 1992 she was promoted to full professor, and in 1994 was appointed Head of the Department of Geography. She has been a member of the South African National Committee for the International Cartographic Association (ICA) since 1987; was a Vice-President of the ICA from 1999 to 2003, and since 2007, the Chairperson of the ICA Commission on the History of Cartography. She acts as Regional Editor of the *British Cartographic Journal* for Africa, is a

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