THE SHOW MUST GO ON THE ROAD FOR VICTORY: THE MGO TECHNICAL ARMOURY AND THE FIRST VICTORY LOAN 1944

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Like the pre-dawn glow on the horizon, there were signs by early 1944 that the war effort was starting to turn in favour of the allies. Most notably in Australia the threat of an invasion by Japan was over. In Melbourne a 24-year-old artillery officer who had seen service in the Middle East with the 2/8th Field Regiment, as well as with 2/10th Field Regt at home, rose to a February morning on which he would be assigned to a somewhat unusual command. Reporting to the Master General of Ordnance (MGO) Branch housed in a Nissen hut in the bayside suburb of Albert Park, Staff Captain Phil Vanderkelen of the DMGO(E) Section,[2] was greeted by his CO, Brigadier John O'Brien, who gave him his new orders (see Appendix 2).

For the months following, Phil and 33 officers and ORs – members of Land Headquarters (LHQ) and the 146th Australian General Transport Company – would become the military version of a travelling show and all that involved.[3] Instead of boxers, bearded ladies or hillbilly singers under canvas, the attraction of this show was the equipment of warfare (Appendix 1, Table 1). Capt Vanderkelen would shepherd some 1,500 items of Allied and captured enemy arms and equipment across more than nine locations in four states in a major fund raising project for the First Victory Loan (March-May 1944) and the Australian Comforts Fund (ACF) (Appendix 1, Table 2). This equipment consisted of items such as an Australian designed and built 25pdr (short) field gun, and captured weapons, such as the German 8.8cm (88mm) Flak 36 anti-aircraft/anti-tank gun and a Japanese 25mm Model 96 Type 2 triple barrelled anti-aircraft/anti-tank gun.

From a tank transporter to a motorcycle, 17 Australian military transport vehicles of all sizes would signal the arrival in capital cities and regional centres of an exhibition designed to attract the Australian public to buy Government war bonds which would help the country get back on its feet when the conflict came to an end. Just as the equipment exhibition was designed to entertain the public and ultimately to sell bonds, so an entertainment precinct had been the focal point of earlier attempts to sell bonds in Western Australia. Motion pictures were a popular form of entertainment and cinemas, typically attracting large numbers of people, were open until 10pm or later. In late 1942 the Austerity Bond was sold with considerable success in picture theatres, supporting the idea that 'many small investors would readily buy bonds at the theatres but not go to banks'.[4] However, by 1943 promotion of bonds was restricted to the gathering of pledges at theatres.[5] If the showman analogy isn't totally accurate, it nevertheless has many parallels with those who brought entertainment to a people for whom austerity had been the rule for nearly five years since war began: heralding the exhibition were music, street parades, 'radio theatre' and positive messages in newspapers

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[2] Deputy Master General of Ordnance (Equipment).

[3] AWM Private Record PR06321.

[4] James (2009: 53).

[5] Ibid.

and on radio about the country's road to victory.



Fig.1: Serving briefly together in the Middle East in 1941, Phil Vanderkelen (left) is pictured at El Kantara, Egypt, with his older brother Peter, also an artillery officer. (Mike Vanderkelen collection)

The story of this travelling exhibition began late in 1943 when the Commander in Chief, General Sir Thomas Blamey, granted permission for the Axis and Allied equipment housed at the Albert Park MGO Technical Armoury, to be exhibited to raise money for the Queensland division of the Australian Comforts Fund (ACF). The ACF provided free 'comfort' items to supplement those that were, and some that were not supplied by the services to all Australian servicemen. Additionally, the ACF provided recreational facilities, games, rest rooms, sporting equipment, gramophones and records to the troops, as well as writing materials such as pencils, paper, envelopes and postcards so the soldiers could write home.[6] In 1941 and early 1942 Gen Blamey had opened two ACF hostels in Palestine.[7] No doubt he thought highly of the contribution of the ACF to boosting military morale, but why he singled out the Queensland branch is unknown.

A report which summarised the travelling exhibition, written by its 2IC Lt L. Franklin, says that 'as the First Victory Loan was to begin at about the same time in March 1944, the Minister and the Treasurer suggested that the appeals would clash.'[8] Franklin may have been referring to John Curtin, who at that time was both Prime Minister and Minister for Defence, and his Treasurer, Ben Chifley, although it is possible it referred to Frank Forde who was Deputy PM and Minister for War. Either way Chifley, who was also Minister for Post War Reconstruction at that time, was looking to the future and it was decided that the Exhibition

[6] Jackson (1949: 333-334); AWM – Guide to the Australian Comforts Fund Souvenir Collection – Finding Aid. The fund had close links with associated bodies including the YWCA and the Salvation Army, who all catered for able 'fit and well members of the Services' (Jackson 1949: xxvii-xxviii, 18-19).
[7] *Advocate* [Burnie], 24 January (1942: 2).
[8] AWM Private Record PR06321.

should be shown in conjunction firstly with the First Victory Loan and secondly with the ACF.

Voluntary loans were one way the Government could fund the war or it could use taxation and compulsory loans and credit expansion.[9] Sydney numismatist Tony James writes that in the Second World War the Commonwealth Government's first public appeal was a loan raised in March 1940 for an amount of £18,000,000. 'The whole amount was taken up by the public and the operation set the pattern for future loans', of which there were a total of 17 to 19 between December 1939 and September 1945.[10] In his national broadcast on 15 April 1942, PM Curtin said thrift was an 'urgent duty'. Spending was to 'disregard national security' he said, urging the public to start saving immediately.[11]

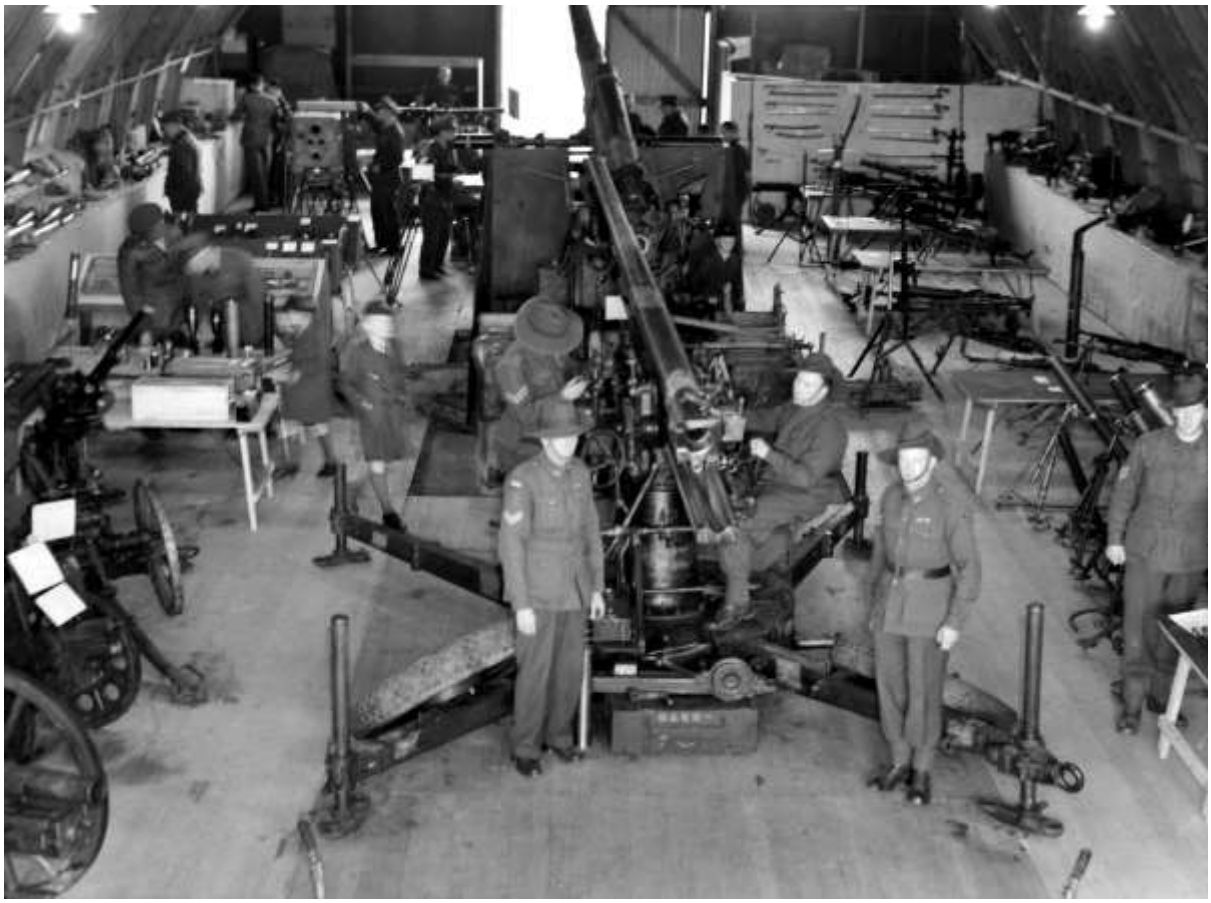


Fig.2: This interior view of the Nissen Hut, with Japanese 75mm Type 88 anti-aircraft gun in the foreground and German 88mm behind it, gives some idea of the extensive collection held in the MGO Branch Technical Armoury at Melbourne's Albert Park. (AWM 055309 – Taken by M.B. Rogers, 14 August 1943).

Initially the loans were described as 'War' then 'War and Works'. By 1942 the names had changed to reflect the progress of the conflict and the state of the nation. There were 'Liberty' loans and, an 'Austerity' loan and by March 1944 when an end was in sight, the Commonwealth floated its first 'Victory' loan (Appendix 1, Table 3). Maybe the public had

[9] NAA CP6/2, 50 (n.d.: 110) and *Sydney Morning Herald*, 30 March (1944: 4).
[10] James (2009: 50). Also see NAA CP6/2, 50; Butlin and Schedvin (1977: 580). This figure depends on whether the Conversion Loans are included.
[11] Diary of a Labour Man 1917-1945, 1942 – Speech by the Prime Minister John Curtin on 15 April 1942 in Canberra.

forgotten Curtin's call to save or spending on personal pleasures lightened the dark days of war, but along the way some loans did not look like closing fully subscribed. Posters calling for the public to support the various bond issues were on the sides of buses, on public notice boards, in cinemas and in theatres, and there were smaller examples in newspapers. To get people to open their wallets, creative promotional tactics worthy of any travelling show were needed.

By 1944 and the First Victory Loan, the use of Allied and enemy equipment was not a new phenomenon. For example, during the First World War a Mark IV Female tank was sent to Australia in 1918. The tank toured the country in late 1918 to raise money for war loans and was also used in a number of displays in 1919, before being given to the Australian War Memorial (AWM) in 1921.[12] Likewise, earlier in WW2 a German Messerschmitt Bf-109 fighter plane which was shot down in the Battle of Britain on 5 September 1940 was sent to Australia and toured the country in 1941-42, and half-way through its tour had purportedly been seen by more than 250,000 people. This aircraft was scrapped after the war.[13] Similarly, Allied, German and Italian tanks and other equipment were on display in Melbourne in November 1942 for the Austerity Loan and in April 1943 for the Third Liberty Loan.[14] In October 1943 the Lancaster bomber 'Queenie VI' (Lancaster A66-1) toured the country promoting the purchase of war bonds in the Fourth Liberty Loan (Oct 1943). Its unsanctioned flight under the Sydney Harbour Bridge was a memorable event of the tour.'[15] This aircraft was also used to promote the First Victory Loan throughout country and metropolitan areas in Queensland.[16]

After the First Victory Loan the use of Allied and enemy equipment would continue for fund-raising purposes. For example, 'Queenie VI' was also used in the Second Victory Loan which toured Western Australia, South Australia, Victoria and New South Wales (Oct 1944).[17] The other Lancaster bomber in Australia, 'G for George' (A66-2, now at the AWM), and some other aircraft were also used for this purpose in the Third Victory Loan (March-April 1945).[18] Similarly, a second 88mm Flak 36 in Australia, now at the Australian Army Armoured Museum at Puckapunyal, Victoria, was part of an exhibition of German, Italian and Japanese equipment used to promote the Third Victory Loan from 14 March to 10 April 1945 in Tasmania.[19]

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[12] Cecil (2001: 36-41); Finlayson and Cecil (2015).

[13] 140,000 in capital cities and 108,000 in country centres (*Albany Advertiser* [WA], 3 November 1941: 3; Fripp 1999: 18-19; Parker 2013: 334).

[14] On 11 November 1942 (AWM Negative Number 137043; 137053) and on 14 April 1943 on Collins Street (AWM Negative Number 138586; 138588). Also see *The Herald* [Melbourne], 14 April (1943: 3) and *The Age* [Melbourne], 15 April (1943: 3).

[15] Nelmes and Jenkins (2000: 186-188, 221-223); Warner (2000: 118-122).

[16] Nelmes and Jenkins (2000: 222); Warner (2000: 123).

[17] Nelmes and Jenkins (2000: 223).

[18] Nelmes and Jenkins (2000: 189-207); Nelmes (2017: 306-312).

[19] NAA P617, 471/1/54; *Advocate* [Burnie], 10 March (1945: 2); *Mercury* [Hobart], 12-14 and 16-17 March 1945; *Examiner* [Launceston], 28 March (1945: 5). This gun was captured by 'B' Company 2/24th Battalion on the morning of 31 October 1942, between the Blockhouse and Ring Contour 25, on the south side of the coast road (AWM52 1/5/20 October-November 1942, appendences; AWM52 8/3/24 September-October 1942; Maughan 1966: 713; Serle 1963: 195, 216; Johnston and Stanley 2002: 216-217; Pearson and Connah 2009: 251. This was one of four such guns captured by the 26 Infantry Brigade during this part of the operation (AWM52 8/2/26 January 1943, Report on Operations "Lightfoot", part 2 of 2). Based on prisoners captured that morning (31 October 1942), and markings that were on the gun, it was probably 'B' gun of the 1./Flak 6 (1st Battery, Flak Regiment 6) (AWM52 8/3/23 October 1942, appendices, Part 1 of 3; Pearson and Connah 2009: 252). Wilhelm Kalsch who was part of the detachment for 'A' gun of this battery confirms that 'B' gun was captured on the south side of the road and is pictured in many books about Alamein (AWM315 701/054/008;

How the First Victory Loan exhibition of enemy and Allied equipment, which opened first in Adelaide on 27 March 1944, was promoted to the people of the South Australian capital was a template for the entire project, with some minor variations along the way. It was described at the time by the *Advertiser* as 'probably the most spectacular publicity medium introduced for any loan in Adelaide' and most likely in all of Australia.[20] Drawing some parallels with a travelling tent show or circus in rural Australia, the exhibition was promoted using print and radio advertising, supported by radio interviews and newspaper reports once the exhibition was in town. Among the theatrical techniques employed to show the equipment off were painted backdrops of jungle scenes, palms, cypresses and other foliage to camouflage a Japanese 'Juki' machine gun in a bunker position. There was also a reproduction of an Italian gun position with a 100mm Obice (Howitzer) 100/17 as the exhibit, and mannequins dressed in the uniforms and equipment of the Axis powers.[21]



Fig.3: Adelaide, the first city on the exhibition's itinerary, welcomed the German 88mm as it drew up outside the Town Hall in King William Street. The gun is being towed by a 'Tractor, Artillery, (Aust.) No.6'. (AWM P2426.003 [with damage to the photograph repaired])

Capt Vanderkelen, having agreed a four-state itinerary with the Commonwealth War Loans director Charles Banfield, left Melbourne ahead of the exhibition convoy. In response to an invitation from ABC Radio South Australia, his first engagement was an interview on 5CL.[22] As with any of the radio interviews undertaken by Capt Vanderkelen, each was tightly scripted and stamped with approval of the censor.[23] Given that 50,000 people reportedly

e.g. Lucas Phillips 1962: plate 2 between p.68-69). It is presumed that he refers to IWM photograph E19174 (Pearson and Connah 2009: 242-243). Personnel from another gun/s in the battery were captured earlier in the battle in the general area (AWM52 1/5/20 October 1942: AWM52 8/2/26 October-December 1942).

[20] *Advertiser* [Adelaide], 30 March (1944: 4); AWM Private Record PR06321.

[21] AWM Private Record PR06321; *Advertiser* [Adelaide], 17 March (1944: 4); 30 March (1944: 4). The Jungle scene was not re-produced in Sydney due to a 'lack of suitable palms' (AWM Private Record PR06321).

[22] AWM Private Record PR06321.

[23] See examples of these radio scripts in AWM Private Record PR06321.

visited the exhibition, the interview must have been a success.[24] After a three-day journey from Melbourne, the exhibition convoy began to unload its cargo at the Adelaide Town Hall in King William Street. Even if the public had not heard the ABC radio interview, they could not easily have missed the drawcard to the main event within the Town Hall: the German 88mm Flak 36 gun captured in the pivotal battle of El Alamein in October-November 1942, most likely by the 2/24th Bn AIF, a unit of the 9th Australian Division (see Appendix 2).[25]

With a live broadcast relayed by radio stations 5AD, 5DN, 5KA and 5CL, the State Governor, Sir Malcolm Barclay-Harvey, opened the exhibition. If a German gun pulled people though the front door, it could be argued that in pride of place in the Adelaide Town Hall was the 25pdr (short) field gun, the design concept for which was put forward by none other than Capt Vanderkelen's CO, the youthful looking Director of Artillery Brig John O'Brien (see Appendix 2).[26] In discussion with one of the authors, Capt Vanderkelen said the Adelaide public and the VIPs pictured at the exhibition opening seemed as much attracted by the Australian ingenuity that resulted in the so-called 'Baby' 25pdr as they were by the collection of enemy equipment.[27] Similarly, after the exhibition, convoy 2IC Lt L. Franklin commented that:

> Great interest was shown by the public in all equipment and in some cases more questions were asked about Australian equipment. The Owen and Bren Gun were among the Australian items which received attention, both types of 25 pdr. were also of great interest. It was found that some country centres had no knowledge of any Australian weapons, therefore enthusiasm to see our equipment was demonstrated.[28]

With Adelaide a success, the first regional centre on the exhibition's itinerary was Ballarat, where the 88mm gun proved a major attraction. No doubt an interview of Capt Vanderkelen on Radio 3BA by announcer Jim Cross drew many people to see the 'big German gun' which was displayed at a race meeting on Easter Monday, 10 April 1944.[29] A photograph in *The Ballarat Courier* newspaper captures the 'big artillery piece' pointing skywards.[30] In Ballarat, the Loan was opened by the Minister for War, Frank Forde, who said 'it is absolutely essential that the people should subscribe to their utmost capacity in the loan, if the war was to be quickly won, for, after all, adequate finances were essential to success.' He continued that 'the exhibition … which was on view to the public of Ballarat, was one of the most striking reminders yet seen by the Australian public of the gravity of the war position.'[31]

By Monday 17 April 1944 Geelong residents were turning out in their thousands at lunch time to see the 88mm German gun trundling through the streets of Victoria's second biggest city. Less than two years earlier it had shelled Allied troops at El Alamein. Now it was featured in a street parade, led by St Augustine's Orphanage Band, as the drawcard to get the public to visit the exhibition. Supported by advertisements in *The Geelong Advertiser* and an interview with Capt Vanderkelen on the *Advertiser* radio station, 3GL, the equipment went

[24] AWM Private Record PR06321.
[25] Ibid.
[26] Ross (1994: 392).
[27] Phil Vanderkelen, 2014 pers. comm.
[28] AWM Private Record PR06321.
[29] Ibid.
[30] *The Ballarat Courier*, 12 April (1944: 1).
[31] Ibid. See also *Westralian Worker* [Perth], 14 April (1944: 4).

on show at the Army's Myers Street drill hall.[32]

Accompanying Capt Vanderkelen to Geelong was Major T. Wildie, who assisted with publicity for the exhibition and may have arranged a modest form of sponsorship with a Melbourne canvas goods maker. Gairs, whose folding camp cots would have been familiar to army personnel, loaned the flags and bunting that decorated the hall.[33] A report from the time said 'Although the Myers Street Drill Hall is slightly out of town, there was at all sessions, a very good attendance. A crane for lifting the heavy equipment, guns etc. from the [Army] vehicles was obtained from the Harbour Trust.'[34] The personnel directly attached to the exhibition were quartered in the Officers' Mess at the drill hall as at all times there had to be a guard on the equipment. Assistance was provided by members of the Volunteer Defence Corps who also showed great interest in the exhibits, wrote Lt Franklin in his report after the exhibition.[35]

The exhibition was opened by the Minister for Aircraft Production, Senator Cameron, who said 'when you look around this hall and see these exhibits … you see instruments of war designed for the purpose, if not of destroying, then at least dominating our democracy. That involves us in a duty of providing the money for making similar and better instruments of war.'[36] The Geelong district was expected to make a significant contribution – £750,000 – to the war loan but for a while it did not look like achieving this objective. No bonds were sold at the exhibition as, according to the War Loan representative, 'no bank clerks were available.'[37] But it may have been other things, like price, that saw the Loan slow to take off. War bonds 'were issued in denominations of £10, £50, £100, £500 and £1000 as negotiable instruments'.[38] With only three million income earners in Australia and nine out of ten earning less than £400 a year, the Government had decided with earlier loans to allow 'people to purchase bonds in instalments so as to attract the maximum number of subscribers'.[39] So, even had the bank tellers been able to attend the Geelong exhibition, it might just have been to collect pledges to purchase bonds, the high face value of which no doubt had many people avoiding an impulsive decision in favour of seeing how the purchase would affect the family budget. Nevertheless, Mr Young of the War Savings Committee in Geelong is quoted as saying the 'Exhibition was an excellent draw card and if [sic] great assistance to the filling of the Geelong quota'.[40]

While not part of the tour, Melbourne provided a rest stop before the convoy travelled to Sydney on the 23 April 1944. Although almost certainly a different gun, on 4 April 1944 (according to its caption), a 25pdr (short) was even put on display in the Collins Street window of upmarket department store Georges Pty Ltd.[41] In Sydney the equipment was set up at No.2 Jetty, Circular Quay (old Manly wharf) between 27 April and 3 May 1944.[42] An

[32] *The Geelong Advertiser*, 5 April (1944: 3); 14 April (1944: 1); 18 April (1944: 3); AWM Private Record PR06321.
[33] AWM Private Record PR06321.
[34] Reported by Lt L. Franklin in AWM Private Record PR06321.
[35] AWM Private Record PR06321.
[36] *The Geelong Advertiser*, 18 April (1944: 3). Also reported by Lt L. Franklin in AWM Private Record PR06321.
[37] AWM Private Record PR06321.
[38] James (2009: 51).
[39] Ibid.
[40] Reported by Lt L. Franklin in AWM Private Record PR06321.
[41] AWM Negative Number 140713.
[42] *Sydney Morning Herald*, 27 April (1944: 3 and 4); 28 April (1944: 3).

image of the German 88mm and Japanese 25mm triple-barrel gun,[43] shows them surrounded by Sydneysiders.[44] The exhibition in Sydney 'was especially memorable as well before its 10 a.m. opening time people were beating on the door to get in'.[45]

By 2 May 1944 Capt Vanderkelen again found himself in front of a microphone, this time just before the evening news broadcast in Sydney. An interview with ABC Radio's Bruce Miller on 2BL had the desired effect of generating public interest. There was no doubt about the popularity of the exhibition but as the closing date loomed, would the First Victory Loan – still shy some 15 percent of its objective of $150,000,000 – close fully subscribed? While War Loans director Charlie Banfield pondered this question in a newspaper report, just days later, after showing in Newcastle, the exhibition convoy headed north to Queensland.[46]

Having travelled to Brisbane via Warwick, Toowoomba and Ipswich, before opening day on 11 June 1944 in Brisbane the objective of the exhibition had changed and it was decided to charge an admission fee, with proceeds going to the Queensland Patriotic and Australian Comforts Fund.[47] The ACF relied on fundraising and donations to support Australian soldiers. It raised thousands of pounds though various activities, such as doorknock appeals, fetes and button days, to cover the cost of materials and shipping of items to the troops. The number of goods supplied, funded and distributed by the ACF volunteers is quite remarkable.[48]



Fig.4: As demonstrated by this ad in the Courier-Mail*, by the time it reached Queensland, the exhibition's objective had changed to raise money for the Queensland Patriotic and Australian Comforts Fund. (*Courier-Mail *[Brisbane], 6 June 1944: 5)*

So, as the exhibition opened at Brisbane's City Hall, promotion took on a new twist including 'radio theatre' sponsorship of the exhibition by commercial organisations and newspaper advertising. Now a radio interview

[43] This is a Japanese Model 96 (1936), type 2, 25mm triple-barrel anti-aircraft/anti-tank gun, which according to the *Catalogue of the MGO Technical Armoury* was captured at Lae airstrip, probably on 16 September 1943 (AWM Private Record PR06321; Dexter 1968: 390-391).
[44] *Sydney Morning Herald*, 27 April (1944: 3).
[45] Phil Vanderkelen, 2014 pers. com.
[46] *West Australian* [Perth], 6 May (1944: 4).
[47] AWM Private Record PR06321; *Courier-Mail* [Brisbane], 6 June (1944: 5); 9 June (1944:3); 14 June (1944: 2).
[48] For example, according to Jackson (1949: 332) the funds raised by the State Divisions was £6,985,306 4s 0d. Additionally, the total number of items issued during WW2 include: comforts = 952,357,711; furniture = 354,829; clothing = 16,683,164; foodstuffs = 36,781,824; Indoor games and recreation equipment = 5,257,919; and sporting material = 153,473 (Jackson 1949: 333–334).

had to 'sell' people on attending the exhibition. While still subject to censorship, a radio interview conducted on station 4BH on 10 June 1944 was somewhat more dramatic than the fairly prosaic ads and controlled interviews that had run in the southern cities. The production was titled 'Weapons of War' – which told stories based on the capture of some of the weapons on show being introduced. The transcript indicates that Capt Vanderkelen was introduced following a combination of dramatic voiceover, background music and the sound effects of war, including gunfire and explosions. Eight actors gave their services for this broadcast and it was a 14-minute production. [49]



*Fig.5: National tea brand Lipton was joined by businesses in various regions in paying for advertising which urged the public to support the First Victory Loan. (*The Ballarat Courier, *13 April 1944: 3)*

Here in the Queensland capital the text of a small advertisement which ran in the *Courier-Mail* gave a clue to the ultimate home for items being exhibited. With entry fees of 1/- for adults and 6d. for children, the ad said the 'Australian tour [was] arranged by Gen. Blamey prior to exhibits being lodged at War Museum, Canberra'.[50] Given a new commercial imperative, the headline for this ad read 'Mammoth Exhibition of Captured Enemy Equipment', and said the exhibition would run for eight days. While saying that total proceeds would go to the Australian Comforts Fund, it is not known if the ACF paid for this and other advertisements.[51] However, the support of various commercial organisations which had paid for newspaper advertising to support the sale of bonds – such as upmarket department stores McDonnell & East and Edward & Lamb, and others businesses in Brisbane, and earlier the Australian Steam Laundry in Geelong, Lipton Teas and Ballarat window furnishings retailer Tunbridge – continued with the sponsorship of advertising which promoted the exhibition.[52]

Had he been travelling with the convoy, War Loans director Banfield might well have wondered whether an exhibition of captured enemy and Allied equipment was worth the effort. After all, just three days before the Loan closed the numbers he received did not look

[49] AWM Private Record PR06321.
[50] *Courier-Mail* [Brisbane], 6 June (1944: 5).
[51] *Courier-Mail* [Brisbane], 6 June (1944: 5). Similar ads appeared in other Queensland Newspapers. For example: *Queensland Times* [Ipswich], 1 June (1944: 5); 3 June (1944: 5); *Sunday Mail* [Brisbane], 4 June (1944: 11); 11 June (1944: 11); *Truth* [Brisbane], 4 June (1944: 15); *Courier-Mail* [Brisbane], 7 June (1944: 7); *Telegraph* [Brisbane], 8 June (1944: 4) and other examples.
[52] AWM Private Record PR06321; *The Geelong Advertiser*, 5 April (1944: 3); *The Ballarat Courier*, 13 April (1944: 3); 15 April (1944: 3); *Sunday Mail* [Brisbane], 4 June (1944: 1, 10); 11 June (1944: 9, 11); *Courier-Mail* [Brisbane], 6 June (1944: 5); 7 June (1944: 6); *Telegraph* [Brisbane], 8 June (1944: 2, 4); 14 June (1944: 4); *Sunday Mail* [Brisbane], 4 June (1944: 1, 10); 11 June (1944: 9, 11); and other examples.

good. The loan response was still £20 million short.[53] Only 270,000 loan applications had been lodged or promised, a figure in sharp contrast to the 567,000 applications which had been received for the Fourth Liberty Loan in October and November of 1943.[54] And, says the newspaper report quoting Banfield, for the first time New South Wales had recorded more subscribers than Victoria. Across the country support had dropped to just one in 26 people supporting the loan.[55] It is arguable that by 1944 some form of economic or financial war weariness may well have set in.

The first metropolitan area to report having filled a big money quota was Richmond, Victoria, whose quota of £300,000 was exceeded by £510. The number of Australian towns which had filled their money or subscriber quotas, or both, totalled 112. Thirty-three had filled both objectives: 61 the money only and 18 the subscriber total only. There were 42 successful centres in Victoria, 24 in New South Wales, 21 in Queensland, 20 in South Australia, four in Western Australia and one in Tasmania.[56] By the official closing date the loan had not reached its target of £150,000,000. To prevent embarrassment to the Federal Government and the need to use of central bank funds to make up the shortfall, late subscriptions were accepted and also 'by squeezing the Commonwealth Savings Bank a little harder'.[57] However, in the end according to a number of sources, the First Victory Loan exceeded its target with 452,700-701 subscribers and a total of £150,548,740-549,000. Of this about £25,710,000 was subscribed for at 2.5 percent maturing for four to five years ending 1948-49 and approximately £124,839,000 was subscribed for at 3.25 percent maturing in 6 to 16 years ending 1950-60 (Appendix 1, Table 3).[58]

Across four states and over four months the exhibition appears to have been remarkably incident free. While a number of small items went missing, Lt Franklin noted in his final report a claim by Adelaide City Council for some damage to its facilities including a stairway balustrade and a slate from the main footpath outside the Town Hall and £19 for loss of boarding and rope and tackle.[59] Franklin also makes some amusing comments about the crowd behaviour during the tour. Firstly, in Adelaide, despite signage stating 'Please do not Handle', there appeared to be a 'natural urge to handle everything, and spin wheels, [which] was manifested in most adults, besides children.'[60] Secondly, also in Adelaide, crowd control was a problem. There was an incident concerning a concerted rush to get into the exhibition with policemen being brushed aside, resulting in the hall becoming overcrowded, but order was soon restored.[61] The 'crush' of the crowds was also a problem in other venues and additional reinforcements were provided for Brisbane.

In Ballarat 'some trouble was experienced in handling a zealous public who fancied themselves pumping bullets from every weapon they examined. Children were a menace again – they were all over the equipment and had to be forcibly restrained.'[62] Of the main attraction, the German 88mm gun captured at El Alamein, Franklin wrote that 'This weapon was a great draw card – there was always a group admiring it at any hour of the day, or night.

[53] *Sydney Morning Herald*, 6 May (1944: 4); *West Australian* [Perth], 6 May (1944: 4).
[54] *West Australian* [Perth], 6 May (1944: 4).
[55] *Sydney Morning Herald*, 6 May (1944: 4); *West Australian* 6 [Perth], 6 May (1944: 4).
[56] *West Australian* [Perth], 6 May, (1944: 4).
[57] Butlin and Schedvin (1977: 581).
[58] Butlin and Schedvin (1977: 580); James (2009: 51).
[59] AWM Private Record PR06321.
[60] Ibid.
[61] Ibid.
[62] Ibid.

Small boys always wanted to operate it – and the staff were constantly removing them from inside the barriers'.[63]

If the roadshow could be credited with helping the Government meet its loan target, it was a small price to pay. Additionally, re-purposing and using *all* of the significant examples of Allied and Axis weaponry and equipment in the MGO Technical Armoury, and employing them for a completely different role than they were designed for, was a credit to the imagination of the Australian authorities. It also shows that in war, adaptability and evolution are vital qualities, not only for achieving strategic and tactical military actions, but also for prosecuting 'actions' on the home front. At a rally in support of the First Victory Loan at the Town Hall in Melbourne on 29 March 1944, PM John Curtin said, 'The war has to be won by fighting men. It cannot be won on the home front, but it can be lost on the home front'.[64]

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In memory of Phil Vanderkelen and Ian Jenkins.

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APPENDIX 1

Table 1: Summary of Major Equipment in the *Catalogue of the MGO Technical Armoury* (dated 18 February 1944 – consisting of 1,170 items (AWM Private Record PR06321) which probably formed the majority of the 1,500 items displayed during the First Victory Loan.

Note: The nomenclature provided is as per the original list in PR06321, except in the case where the authors have inserted a [ ]. Some original entries appear to be inconsistent, vague and/or wrong. Additionally, we have also tried to provide comments and AWM Catalogue Number references where ascertainable and where the relevant relic has a clear association with the MGO. However, in most cases it is difficult to ascertain if many of these weapons are the weapons in the AWM collection due to lack of serial numbers on the original list and ambiguities or lack of pertinent data in the AWM Catalogue Sheets.

1.1: Japanese

Catalogue No.	Class (Nomenclature from PR06321)	Type (Nomenclature from PR06321)	Remarks	Quantity
1	Field Guns	37 m.m. Tk/A[65]	Captured Mile Bay [Type 94 37-mm AT Gun? – Possibly RELAWM36958]	1
2	"	75 m.m. Reg. Gun	Captured Buna Mission [Type 41 75-mm Regimental Gun?]	1

[63] AWM Private Record PR06321.
[64] Diary of a Labour Man 1917-1945, 1944 – Speech by the Prime Minister John Curtin on 29 March 1944 at the Melbourne Town Hall; *Sydney Morning Herald*, 30 March (1944: 4).
[65] Tank Attack (T/At) is an Australian term introduced in 1943 for all Aust. in-service anti-tank weapons (Mike Cecil 2017 pers. comm.). It is not applicable to enemy weapons but has been kept for authenticity because it appears in the original 1944 List.

3	"	70 m.m. Bn. Gun (with sight)	No Breech [Type 92 70-mm Battalion Gun – Possibly RELAWM36959 or 36960]	1
4	"	75 m.m. Mountain Gun	[Type 94 75-mm Mountain Gun? – Possibly RELAWM36885 or 36947]	1
5	A.A. Guns	75 m.m. with sight	Captured at Buna [Type 88 75-mm Mobile AA Gun – Probably RELAWM30147.001]	1
6	"	20 m.m. Dual purpose Tk/A with sight	Captured at Gona [Type 98 20-mm AA/AT Gun? – Possibly RELAWM36961]	1
7	"	13 m.m Dual mount with sight	[Type 93 13.2-mm AA/AT Gun? – Possibly RELAWM36882.001 and .003]	1
8	"	25 m.m. Triple mount with sight	Captured Lae air strip [Type 96 25-mm Triple Barrel AA/AT Gun – Probably REL/07191]	1
9	"	25 m.m Dual mount	Captured at Finschhaven	1
10	"	25 m.m. Barrel & mech. less mtg.	[Type 96 25-mm AA/AT Gun?]	1
11	Tank Guns	37 m.m w/out mount	Taken from tank at Milne Bay	1
12	Mortars	70 m.m Barrage Mort.	[70-mm Taisho 11th year type Mortar?]	1
13	"	60 m.m Grenade Discharger Type 98	Spigot projectile (inert) [Type 98 50-mm Mortar?]	1
14	"	Gren. Discharger Type 89	[Type 89 50-mm Grenade Discharger – Possibly RELAWM27297]	1
15	H.M.G.	20 m.m Oerlikon less mounting	[Type 98 20 mm AA/AT Gun?]	1
16	M.M.G.	7.7 m.m JUKI with dial sights	Carrying handle ("Woodpecker") [Type 92 7.7-mm Heavy Machine Gun – Possibly RLAWM27200]	2
17	L.M.G.	7.7 m.m. Vickers Type	From tank or aircraft	1
18	"	7.7 m.m. U/1 with sight	From tank	1
19	"	.256 "Keiki"	Adaption of Bren [Type 96 6.5-mm Machine Gun?]	2
20	"	.256 Taisho	Hopper Fed [Taisho 3rd year type 6.5-mm Heavy Machine Gun – Possibly RELAWM27240]	1
21	"	.312 Czech	Captured from Japs [Type 97 7.7-mm Machine Gun?]	1

Some of this equipment is also apparently described in Australia in AWM315 206/004/007, AWM315 328/001/008, and AWM315 748/003/005; AWM Accession Register Numbers: RELAWM27200; RELAWM27240; RELAWM27297; RELAWM30147.001; RELAWM 36882.001 and 002; RELAWM36885; RELAWM36947; RELAWM36958; RELAWM36959; RELAWM36960; RELAWM36961; and REL/07191.

1.2: German

Catalogue No.	Class (Nomenclature from PR06321)	Type (Nomenclature from PR06321)	Remarks	Quantity
283	Field Gun	75/27 Field Gun		1
284	Tk/A	50 m.m.	[5-cm Pak 38, RELAWM36890]	1
285	"	37 m.m Tk/A	[3.7-cm Pak 35/36?]	1
286	"	28/30 Tk/A Tapered	Captured at Benghazi [2.8-cm PzB41 – Possibly RELAWM36883]	1
287	"	20 m.m Dual purpose A/Tk A.A.	Captured at Fort Capuzzo	1
288	A.A. Guns	88 m.m Duel purpose	[8.8-cm Flak 36 with Flak, 18 barrel, captured EL Alamein REL/03359.001]	1
289	"	20 m.m. Flak 30	[2-cm Flak 30]	1
290	"	20 m.m Flak 38	[2-cm Flak 38 – Probably RELAWM36876]	1
291	M.M.G.	M.G. 0.8. Spandau with sled mount	Converted to .303	1
292		M.G. 0.8./15 Spandau shoulder controlled	Converted to .303	1
293	"	M.G. Schwarzlose 7.92 m.m.	[7.92-mm 07/12 H.M.G. – Possibly RELAWM33601 and tripod 33602]	1
294	"	M.G. 34/41 7.92 m.m. & Collapsible tripod	[Possibly RELAWM20532, 33484 or 33882]	1
295	"	M.G. 15 7.92 m.m. and A.A. mount	[Possibly RELAWM33483.001 or 34051]	1
296		7.92 m.m. chair mounting twin MG34 machine guns	[RELAWM36869.001–002]	1
297	A/Tk Rifle	B.39 7.92 m.m.	[PzB39 or GrB39 Grenade Launcher Rifle? – Possibly RELAWM33482, 20536, 20537 or 33481]	1

Some of this equipment is also apparently described: in Egypt, AWM315 743/001/007 and 748/026/001; in Australia, AWM93 50/3/5; AWM315 206/004/007, AWM315 328/001/008, and AWM315 748/003/005. AWM Accession Register Numbers: RELAWM20532; RELAWM20536; RELAWM20537; RELAWM33481; RELAWM33482; RELAWM33483.001; RELAWM33484; RELAWM33601; RELAWM33602; RELAWM33882; RELAWM34051; RELAWM36869.001–.002; RELAWM36876; RELAWM 36883; RELAWM36890; and REL/03359.001.

1.3: Italian

Catalogue No.	Class (Nomenclature from PR06321)	Type (Nomenclature from PR06321)	Remarks	Quantity
418	Field Guns	75/27 m.m	[Cannone 75/27-mm Mod. 11/12]	1
419	"	100/17 m.m M.14	[Obice 100/17-mm Mod.14]	1
420	"	75 m.m		1
421	Mortars	60 m.m less tripod		1
422	"	40 m.m BRIXIA	[45-mm Brixia mod. 35]	1
423	"	81 m.m.	[Mortaio da 81/14 Mod. 35 – Possibly RELAWM20529 or 33605].	1
424	H.M.Gs.	12.7 m.m Breda with mount		1
425	"	12.7 m.m. Breda less mount	[Possibly RELAWM33570]	1
426	M.M.Gs.	8 m.m. Breda with mount	[Possibly 8-mm Breda Mod. 37 – Probably RELAWM33573 and 33574]	1
427	"	8 m.m. Fiat with mount	[8-mm Fiat-Revelli Mod. 35?]	1
428	L.M.Gs.	6.5 m.m. Fiat	Can be fired shoulder controlled or with spade grips [Fiat-Revelli Mod. 14?]	1
429	"	6.5 m.m Breda Mod. 30	[Possibly RELAWM33476]	1
430	"	8 m.m. Breda A.F.V. mod. 38	Taken from tank [Probably RELAWM33541]	1
431	"	7.9[2?] m.m Herstal Mod. 29		1
432	"	7.9[2?] m.m Herstal		1

Some of this equipment is also apparently described: in Egypt, AWM315 743/001/007 and 748/026/001; in Australia, AWM315 206/004/007, AWM315 328/001/008, and AWM315 748/003/005. AWM Accession Register Numbers: RELAWM20529; RELAWM33476; RELAWM33541; RELAWM33571; RELAWM33573; RELAWM33574; and RELAWM33605.

1.4: Allied

Catalogue No.	Class (Nomenclature from PR06321)	Type (Nomenclature from PR06321)	Remarks	Quantity
544	Field Gun	25-Pdr.	[Probably QF 25-pounder Mk1/2]	1
545	A/Tk	6-Pdr.	[QF 6-pounder]	1
546	"	2-Pdr. Airborne IXA & XA	[QF 2-pounder AT Gun]	1
547	"	2-Pdr. Standard mod. IXA & XA	[QF 2-pounder AT Gun]	1

548	Mortars	4.2” Heavy	[M.L. 4.2-in. Heavy mortar]	1
549	”	M.L. 3”	[M.L. 3-in. mortar]	1
550	“	2”	[S.B.M.L. 2-in. mortar]	1
551	“	81 m.m American	[M1 Mortar]	1
552	Tk/A Inf.	Bazooka	[Rocket Launcher M1 or M1A1 Bazooka?]	1
553	H.M.G.	.50 Browning American Water cooled	[M1921A1?]	1
554	“	.50 Browning American Air cooled	[M2?]	1
555	“	.50 Boys American [sic] Tk/A[66]		1
556	M.M.G.	.30 Browning American Air cooled	[M1919A4?]	1
557	“	.30 Browning Water cooled	[M1917A1?]	1
558	“	.30 Browning Mod. 38 Amer. with spade grip handles		1
559	“	.303-in. Vickers British with field mount		1
560	“	.303-in. Vickers Twin Aust. with radial mount		1
561	“	7.9[2] mm BESA British tank		1
562	L.M.G.	.303 Lewis British		1
563	“	.303 Mk.I British[67]		1
564	“	.303 Hotchkiss portable Mk.I		1
565	“	.303 Hotchkiss portable Mk.I pistol grip type		1
566	Tk/A	P.I.A.T.[68] British Tk/A Inf.		1
567	[Misc.]	Bomb thrower 2” Mk.IA. Aust.		1
568	“	Projector Trip Flare Mk.I Aust.		1

Table 2: Places Visited During the First Victory Loan and Queensland Patriotic Australian Comforts Fund

First Victory Loan				
Place	**Date**	**Place**	**Date**	**Comments**
Leave Melbourne	20 March 1944	Adelaide	23 March 1944	

[66] This should be .50 [.55-in. British] Boys anti-tank rifle.
[67] Not sure what this is.
[68] The PIAT is a Projector, Infantry, Anti-Tank, which was changed in Australia in 1943 to PITA – Projector Infantry Tank Attack (Mike Cecil 2017 pers. comm.).

Open Adelaide	27 March 1944	Close	5 April 1944	Opened by Gov. of SA, Sir Malcolm Barclay-Harvey. Exhibition displayed at the Adelaide Town Hall (est. 50,000 people visited) and a procession through streets. See Figures 3 & 8
Leave Adelaide	7 April 1944	Arrive Ballarat	8 April 1944	Via Murray Bridge, Tailem Bend, Coonalpyn, Bordertown, Nhill, Dimboola, Horsham, Stawell, Ararat
Open Ballarat	11 April 1944	Close	12 or 13? April 1944	Open by Deputy PM and Minister for the Army, Mr F. M. Forde (Deputy PM). Exhibition displayed at the Ballarat Drill Hall (est. 22,000 people visited) and a procession through streets. Also 88 displayed at Ballarat race course during Easter race meetings. See Figure 6 and *The Geelong Advertiser*, 14 April (1944: 1) for image
Leave Ballarat	14 April 1944	Arrive Geelong	15 April 1944	
Open Geelong	17 April 1944	Close	19 April 1944	Open by Minister for Aircraft Production, Senator Cameron. Exhibition displayed at the Myers Street Drill Hall (est. 20,000 people visited) and procession through streets
Leave Geelong	21 April 1944	Arrive Melbourne	21 April 1944	Rest and repairs
Leave Melbourne	23 April 1944	Arrive Sydney	25 April 1944	Via Albury and Yass
Open Sydney	27 April 1944	Close	3 May 1944	Opened by Lord Major of Sydney, Alderman Bartley. Exhibition displayed at No.2 (old Manly Ferry) Wharf, Circular Quay (est. 12,000 people visited on 1 day).
Leave Sydney	5 May 1944	Arrive Newcastle	5 May 1944	
Open Newcastle	7 May 1944	Close	9 May 1944	Opened by Mayor, Alderman. Norris. Exhibition displayed at Pitt Son and Badgery's Store (Large Wool Store). See *The Newcastle Sun*, 5 May (1944: 3) for image
First Victory Loan Ceased. Start of Queensland Patriotic Australian Comforts Fund (Queensland Division).				
Place	**Date**	**Place**	**Date**	**Comments**
Leave Newcastle	11 May 1944	Arrive Warwick	18 May 1944?	Via Tenterfield and Stanthorpe. At the latter a street show was held which raised £27.
Open Warwick	20 May 1944	Close	21 May 1944	Weekend only. Exhibition displayed at the Cusa Hall (£150 raised)

Leave Warwick	Unknown	Arrive Toowoomba	Unknown	
Open Toowoomba	27 May 1944	Close	28 May 1944	Weekend only. Exhibition displayed at the R.S.S.I.L.A.[69] Memorial Hall (£260 raised) and a procession through streets
Leave Toowoomba	Unknown	Arrive Ipswich	Unknown	
Open Ipswich	3 June 1944	Close	4 June 1944	Weekend only. Opened by Mayor J. C. Minnis, and attended by the QLD Premier Mr Cooper. Exhibition displayed under two marquees at the Congregational Church Hall (£130-138 raised)
Leave Ipswich	Unknown	Arrive Brisbane	9 June 1944	
Open Brisbane	11 June 1944	Close	18 June 1944	Open by Vice-Mayor, Alderman Moon. Exhibition displayed at the Brisbane City Hall (65,000 people visited, raised £3,500) and a procession through streets. See *The Telegraph* [Brisbane], 9 June (1944: 3) and 12 June (1944: 3) for images
Leave Brisbane	Unknown	Arrive Melbourne	Unknown	End

AWM Private Record PR06321; *Advertiser* [Adelaide], 17 March (1944: 4); 30 March (1944: 4); 31 March (1944: 4); *The Ballarat Courier*, 12 April (1944: 1); *The Geelong Advertiser*, 14 April (1944: 1); 18 April (1944: 3); *Sydney Morning Herald*, 27 April (1944: 3–4); 28 May (1944: 3); *Sun* [Sydney], 29 April (1944: 3); *Newcastle Morning Herald and Miner's Advocate*, 6 May (1944: 2); *Newcastle Sun*, 5 May (1944: 3); 6 May (1944: 3); *Warwick Daily News*, 15 May (1944: 2); *Courier-Mail* [Brisbane], 28 April (1944: 1); 9 June (1944: 3); 14 June (1944: 2); *Queensland Times* [Ipswich], 30 May (1944: 2); 1 June (1944: 2); 5 June (1944: 2); *Telegraph* [Brisbane], 9 June (1944: 3); 12 June (1944: 3); *Truth* [Brisbane], 11 June (1944: 8).

Table 3: Names, Dates and details of Commonwealth Loans in Australian during the Second World War

Date	**Name of Loan**	**Amount Invited**	**Amount Subscribed (000)**	**Number of subscribers**	**Rate of Interest approx. distribution**	**Maturity**
Dec 1939	3½ % Loan, 1942-44		£12,000,000	10	@ 3½	Unknown
March 1940	1945 and 1950-56 Loan	£18,000,000	£18,164,740	14,339	@ 3¼ @ 3?	1945 1950-56
May-June 1940	1945 and 1950-56 War Loan	£20,000,000	£20,582,490	32,792	@ 2½ @ 3¼	1945 1950-56

[69] Returned Sailors and Soldiers Imperial League of Australia.

Nov-Dec 1940	War and Works Loan	£28,000,000	£28,499,420	21,830	@ 2½ @ 3¼	1945 1950-56
April-May 1941	War and Works Loan	£35,000,000	£35,871,450	57,217	@ 2½ @ 3¼	1946 1950-56
Oct-Nov 1941	War and Conversion Loan	£100,000,000	£34,158,490-500	83,378-9	@ 2½ @ 3¼	1945-46 1950-57
February-March 1942	First Liberty Loan	£35,000,000	£48,331,250-510	244,587-97	£12,869,000 @ 2½ £35,462,000 @ 3¼	1945-46 1950-58
June 1942	Second Liberty Loan	£35,000,000	£37,373,480-374,390	196,510-64	£7,032,000 @ 2½ £30,341,000 @ 3¼	1946-47 1950-58
June 1942	Special Issue	£3,019,000	£3,019,000	-	@ 2½	1946-47
Nov-Dec 1942	Austerity Loan	£100,000,000?	£82,667,250-684,690	454,838-455,933	£22,838,000 @ 2½ £60,577,000 @ 3¼	1946-47 1950-58
Mar-April 1943	Third Liberty Loan	£100,000,000	£101,805,380-825,060	432,392-433,739	£18,661,000 @ 2½ £83,144,000 @ 3¼	1947-48 1950-59
June 1943	Special Issue [Conversion Loan]	£235,000	£235,000	-	@ 2½	1947-48
October 1943	Fourth Liberty Loan	£125,000,000	£126,408,000-320	567,533-538	£24,500,000 @ 2½ £101,908,000 @ 3¼	1947-48 1950-59
March-May 1944	First Victory Loan	£150,000,000	£150,548,740-549,000	452,700-701	£25,710,000 @ 2½ £124,839,000 @ 3¼	1948-49 1950-60
September 1944	Second Victory Loan	£112,479,000	£113,936,000-937,000	421,456-62	£15,361,000 @ 2½ £98,576,000 @ 3¼	1948-49 1950-60
December 1944	Debenture issue	£43,018,000	£43,018,000	-	@ 1	1945-83
March 1945	Third Victory Loan	£100,000,000	£107,302,000-900	422,714-828	£12,342,000 @ 2½ £94,960,000 @ 3¼	1949-50 1950-61
July 1945	Special issue [Conversion Loan]	£330,000	£330,000	-	@ 2½	1949-50

September 1945	Fourth Victory Loan	£85,000,000	£86,374,680-87,231,000	259, 709-260,271	£24,102,000 @ 2½ £63,129,000 @ 3¼	1949-50 1960-61

(After NAA CP6/2, 50; Butlin and Schedvin (1956: 580; James (2009: 51).)

Note: These figures should be taken as indicative as the sources differ in many cases. Some of this difference is as a result of rounding up or down. In these cases a range is given. Similarly, the number of loans also differs between sources.

APPENDIX 2

MGO and technical armoury

For the first time, during the Second World War, the Australian Government found it necessary to raise, equip and maintain an army for operations in areas adjacent to its shores.[70] So, to the Master General of Ordnance Branch,

> fell the task of developing Equipment, Design and Inspection Divisions to direct the technical evolution of Army equipment, to prepare drawings and specifications and discuss production difficulties with Australian manufacturers and production agencies, and to raise, train and expand a military Ordnance Service and a military Electrical and Mechanical Service.[71]

Among the MGO Branch's responsibilities was the technical evaluation of the design and performance of enemy equipment which had been bought to Australia. Captured equipment which was new or unknown to the MGO Branch was of the greatest interest to intelligence and technical officers, and technical evaluation of these items was given a high priority by the MGO.[72] After examination many of these items were placed in the Technical Armoury which was located at the MGO Branch H.Q., Albert Park, Melbourne, for future reference if necessary, and controlled by Staff Captain Enemy Equipment under the DMGO(E).[73]

The Technical Armoury comprised examples of equipment captured by Australians and allied troops in all theatres of war, including German and Italian equipment from the Western Desert and Japanese equipment from the South-West Pacific (Appendix 1, Table 1.1-1.3). When placed on display the equipment required a floor space of 1,400 sq.ft., not including the German 88mm anti-aircraft gun which weighed 6 tons.[74] Although primarily collected for technical evaluation, examples of captured equipment were also used for propaganda purposes during the war and earmarked for post-war inclusion in the collection of the Australian War Memorial.[75]

[70] NAA MP742/1, 274/2/152 containing a document called 'Master General of Ordnance: History & Activities during the war 1939-45'. Also see the same document in AWM113 MH 1/233 Part 1.
[71] Ibid.
[72] lbid.
[73] Ibid. DMGO(E) = Deputy Master General of Ordnance (Equipment).
[74] AWM Private Record PR06321. According to some sources the 88mm Flak actually weighed 5,000kg (or 5,400kg with shield) in position, and 7,200kg in transit mounted on its two limbers (Müller 1990: 139; Piekalkiewicz 1992: 181; Franco 1996: 80).
[75] AWM315 748/026/001.

The German 88mm Gun

The main attraction during the loan was the German 88mm (8.8-cm) Flak Gun, which was captured at El Alamein, Egypt and is now on display at the AWM in ANZAC Hall (AWM Accession Number REL/03359). The significance of this type of gun was that it was not only used as an anti-aircraft gun, but also as a direct-fire weapon against tanks, soft-skinned vehicles, emplacements and ships, and as a field artillery piece against troops.[76] As one Australian infantryman commented:

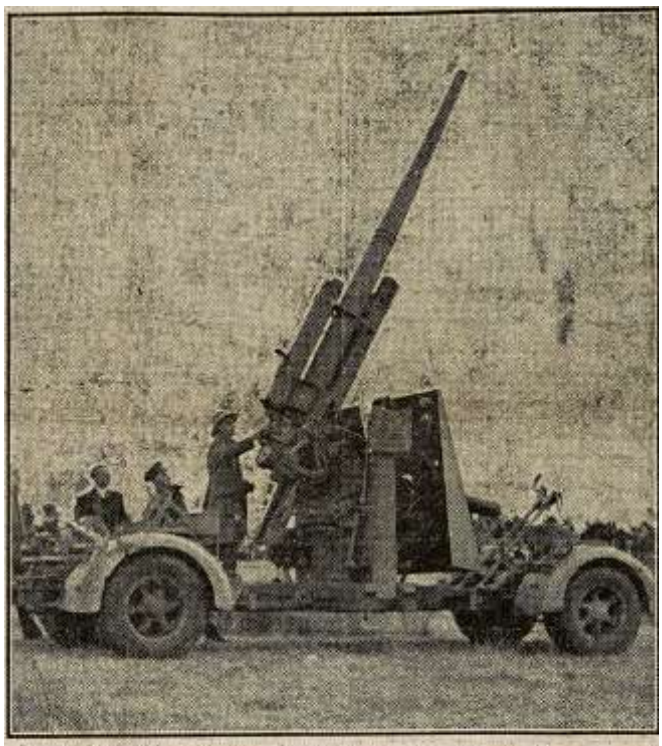
> it [was] anti everything, everything that flies, or crawls, or hops, or travels in tanks and lorries, or on foot, or in aeroplanes. It blasts the infantryman with high-explosive shells … it lashes him with air-bursts … This was the gun that caused 40 per cent of Australian casualties in the battle of Egypt …[77]

It was so effective in these roles that many Allied soldiers frequently attributed any German heavy calibre gunfire to 88mm guns, even when guns of other calibres and comparable performance were often responsible.[78] When employed in the anti-tank role, it was able to knock out most Allied tanks within its effective range of 3,000 yards (2743m), a significantly greater distance than any Allied anti-tank gun could achieve at the time in this theatre.[79] Employed in the anti-tank role, under optimum conditions, the armour-piercing projectile could penetrate 100mm (3.92in) of homogeneous vertical armour at 1,829m (2,000 yards).[80]

The gun at the AWM was one of two 88mm Flak 36 (with Flak 18 barrels) guns brought back to Australia from this theatre during WW2.[81] The other extant 88mm gun is located at the Australian Army Armoured Museum at Puckapunyal, Victoria.[82] A third gun, probably a First World War 88mm Flak 19, is thought to have been destroyed (as a target) on the Holsworthy Range in 1972, after it had been heavily corroded while on display for many years outside at the Army's North Head Artillery School at Manly, NSW.[83] The gun at Puckapunyal was captured during the battle of El Alamein by B Company 2/24th Battalion on the morning of 31 October 1942. It was located to the north-east of the Blockhouse, on the south of the coast road and to the west of Ring Contour 25.

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[76] War Department (1943a: 16); Piekalkiewicz (1992:7).
[77] AWM 3DRL/0368: 196.
[78] Bidwell and Graham (1982: 230).
[79] Lucas Phillips (1962: 40).
[80] War Department (1943b: 29). Sources conflict but, depending on the ammunition used, it appears that it could fire a 9kg projectile of 88mm diameter at 820-840m/s for a maximum distance of 14,820m horizontally and 9,100m vertically (Ministerio del Ejército 1947: 130). Its crew of ten could fire 12-15 rounds per minute (War Department 1943a: 38, 42-43).
[81] AWM 90/1887; AWM315 743/001/007; AWM315 745/001/001; Pearson (2000: 46); Pearson and Connah (2009). The 88 at the AWM has a Flak 18 barrel with the serial number R.3206 ('R' for *Rohr* [gun barrel]) on the breech ring and with the manufacturing date of 1941. The Flak 36 carriage is marked with the serial number 2416 and its date of manufacture is also 1941. Markings on components indicate that the gun was manufactured by at least nine companies. The frequency of the code for the *J. M. Voith Maschinenfabrik* (manufacturer's code 'CXX') company at Heidenheim or Brenz indicates that they had a sizeable involvement in the production of gun (Pearson 2000: 23-24, 57-60, 119-124).
[82] AWM 90/1887; Pearson and Connah (2009). This gun has a Flak 18 barrel, the barrel sleeve and breech ring are marked with the serial number R.531 and with the manufacture date of 1936. The Flak 36 carriage is marked with the serial number 1735 and the date 1941. Components of this gun were manufactured by at least six different manufacturers. One of these is Friedrich Krupp of Essen (manufacturer's code 'bwn') (Pearson and Connah 2009: 236-237).
[83] AWM 90/1887; Pearson (2000: 46-47, 94); Pearson and Bailey (2000: 34-35). See Royal Australian Artillery Historical Company (RAAHC) Photo Archive for a possible photograph of this gun. Two other 88mm guns, both of Spanish manufacture, were also brought into the country in 2013 and 2016 from Spain and at the time of writing are located at The Australian Armour and Artillery Museum, Cairns (Jason Belgrave 2017 pers. comm.).



Captured by the Australians at El Alamein, this 88 m.m. German anti-aircraft gun made its appearance at the Ballarat races on Monday, in connection with the First Victory Loan drive. It forms part of the huge exhibition of war trophies now being staged at the Ballarat Drill Hall.

Fig.6: The Ballarat's Courier *newspaper showed readers the German 88mm on display at the Ballarat racecourse on 10 April 1944 (*The Ballarat Courier*, 12 April 1944: 1; AWM Private Record PR06321)*

The gun on display at the AWM was used on the First Victory Loan tour. It was brought to Australia from Egypt on 23 March 1943, on the SS *Cornwell Castle*, having been used to supplement the ship's armament during the voyage. An image of the gun in the *Sun* [Sydney] on 25 March shows a unit symbol on one of the gun's limbers, which probably indicates that the gun belonged to the German 7./25 Flak Regiment (7th Battery, Flak Regiment 25).[84] This unit was attached to the 200th Battle Group during the battle of El Alamein.[85] In transcripts of radio interviews in 1944, during the loan, Capt Vanderkelen says: 'On the shield and mudguards of this gun there are scrawled signatures of the personnel of a Victorian Unit' and that this unit was the '24th Battalion of Victoria'.[86] Although most of the signatures have long ago been effaced, there is still evidence of signatures of an Australian Workshop Unit under the outriggers.[87] If this gun was the second gun captured by the 2/24th at Alamein, then comments by Maj Mollard of A Coy, 2/24th Bn are particularly relevant. He said that the gun was

> the first 88mm. captured undamaged by the allies in any theatre of war and that it was complete in every respect and in first-class condition. Apparently the Germans were so completely surprised that they had no chance to destroy the gun … [and] subsequently made every effort to destroy it by shellfire, but without success. [88]

The 26th Brigade Action Diary, under an entry from the 2/24th Bn at 1310, 27 October, says:

> Following weapons captured 1 88mm 1 50mm Atk 3 37mm Atk … 88 mm fwd of FDLs ask for gun to be recovered tonight. Gun is dismounted plus amn and is complete in all,[sic] respects including sight. Can be recced in daylight.[89]

After some initial problems, the gun was finally removed using a tank transporter.[90] These narratives may explain reasons for its recovery during the battle as well as explaining some of the 20mm perforations evident on the shield and superstructure of the gun.[91]

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[84] AWM 97/0948; NAA SP729/2 1943; *News*, 10 March (1943: 11); *Sun* [Sydney], 25 March (1943: 5); Fairfax Photo Library 28 March 1943-War File; Pearson (2000: 47–49).
[85] IWM EDS AL 879/1.
[86] AWM Private Record PR062321. Also see AWM93 50/3/5; *Sun* [Sydney], 25 March (1943: 5); *Sydney Morning Herald*, 27 April (1944: 4).
[87] AWM52 14/2/1 November 1942; Courtney (1987: 4); Pearson (2000: 75-76).
[88] AWM 90/1887; Pearson (2000: 39).
[89] AWM52 8/2/26 October-December 1942.
[90] AWM 90/1887.
[91] Pearson (2000: 78-84).

The context for the action described by Maj Mollard took place on the morning (around 0040 hours) of 26 October 1942 against a feature called the 'Fig Orchard' or 'Fig Garden'. Following an artillery barrage, the 2/24th Bn attacked from the south-west, and to the right of Trig 29, which was the 2/48th Bn objective. After moving 2,400 of 2,500 paces towards their company objective they encountered a well-fortified and dug-in enemy position. After fierce hand-to-hand fighting, 40-50 Italian and German prisoners were captured as well as an 88mm gun.[92] During the whole of this action, the battalion captured 143 German and 26 Italian Prisoners as well as two 88mm guns, five smaller cannon, eighteen machine guns and ammunition.[93] The approximate position on the gun taken by A Coy was in the general area assigned to the 200th Battle Group (see above) and therefore most likely confirms its German unit as the 7./25 Flak Regiment. For more information see Pearson (2000).



Fig.7: Independently of the Victory Loan Exhibition, retailers helped to attract public support for the war effort, like Melbourne's prestigious Georges when it lent its shop window on Collins Street to display the Australian-developed 25pdr (short) artillery piece. (AWM 14713 - Taken by the Herald*, 4 April 1944)*

Australian 25pdr Short (Aust)

The need for a more transportable gun than the conventional British 25pdr Mark II, which had distinguished itself so well at El Alamein and in other places, resulted from the difficulty of deploying artillery in the harsh terrain of New Guinea.[94] Prior to 1943 the Australian Army had only four of the manoeuvrable and proven British 3.7-inch QF Mountain Guns (howitzers) and Australia's request for American 75mm M1 pack howitzers had not been

[92] AWM52 1/5/20 October-November 1942, appendices; AWM52 8/3/24 September-October 1942; Maughan (1963: 690); Serle (1963: 204-206); Johnston and Stanley (2002: 183).
[93] AWM52 8/3/24 September-October 1942.
[94] Mellor (1958: 238).

immediately filled.[95] In response to these demands, in September 1942 Brig O'Brien (of the MGO) suggested an Australian variation of the 25pdr to meet these requirements.[96]

All the development work was conducted in Australia by the Army, the Ordnance Production Directorate and Charles Ruwolt Pty Ltd, in Richmond, Victoria. It used the recoil system that had been re-designed for the 25pdr equipped Australian Cruiser Tank (Aust.) Mk.3 (AC3), the latter developed by Ruwolts. Just four months after the project was agreed to, an acceptable weapon was tested in December 1942, field tested in March 1943 and introduced into service in August 1943.[97]

The gun was given the nomenclature-'Ordnance QF 25-Pr. Short (Aust.) Mark.I on Carriage, Light (Aust.) Mk.I [or Mk.II]'. There were 112 guns built using the Mark I carriage and 100 guns using the improved Mark II carriage, although Mellor says that there were 213 built.[98] The gun was specifically designed with a shortened barrel and recoil system, and a lighter carriage which resulted in a weight of 2,910lbs (1,319.9kg), which could be dismantled into 10-14 loads in two minutes. Using standard 25pdr ammunition, depending upon the charge employed, it had a range of 3,100-11,500 yards (2,835-10,516m). This understandably was a shorter range than that of the standard gun.[99]

The 'Baby' 25pdr was intended for jungle warfare and was only used by Australian units in the South-West Pacific Area during WW2. When assembled the gun could be towed by a jeep or truck. When broken down into sections it could be transported by air and/or dropped by parachute. During the New Guinea campaign the gun was manhandled up steep jungle tracks where vehicles could not operate. Indeed, in support of United States paratroopers, two guns were parachuted, with detachments from the 2/4th Aust Field Regiment, into the Markham Valley (Nadzab) on 5 September 1943.[100]

Australian Munitions Industry during WW2

As a result of the First World War there arose a conviction that in the event of war Australia would have to be, as nearly as possible, independent of overseas supplies of essential manufactured goods.[101] Selected individuals and workers had been sent to Britain to assist in work in munitions industries production, and the experience they gained was of enormous benefit to the Australian defence industries upon their return. [102]

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[95] Gower (1981: 87, 89-90). Gower (1981: 87) says that these guns were relatively old and in poor condition and were sourced from New Zealand. Additional research suggest that a number of 3.7-inch QF Mountain Guns – at least two – had also been purchased by the RAN for naval brigade work and for a time were carried by HMAS Canberra and Australia. Sometime in 1942 these guns were apparently handed to the Army (Adlam 1980: 17). This shows that the Army did not have these types of guns in stock and in desperation they had to be sourced from elsewhere.

[96] Mellor (1958: 238).

[97] Mellor (1958: 238-239); Cecil (1992a: 21).

[98] Mellor (1958: 239); Cecil (1992a: 19-20).

[99] NAA D5172, 96 (pp.12-15). This digital file contains the *Australian Military Forces, Equipment Memorandum* No.10, 29 February 1944 (pp.14-21); Mellor (1958: 238); Cecil (1992a: 20).

[100] Dexter (1968: 338–339, 343-345, between 348–349); Gower (1981: 94); Cecil (1992a: 21-22); Goyne (2014: 40-42). Both Mellor (1958: 239, 511) and Cecil (1992a: 20-21) say that the gun was not popular with the gun detachments because the shorter barrel caused a 'heavy blast effect on the crews, who, in consequence, sometimes suffered from severe earache and temporary deafness, as well as occasional nose-bleeding'. Mellor (1958: 239) goes on to say that its positive points seem to have outweighed its shortcomings.

[101] Mellor (1958: 5, 7).

[102] Mellor (1958: 5-6).

Government munitions factories were established to

> meet the country's small peacetime demand for munitions, which it was hoped would be sufficient to keep them operating on an economic basis. At the same time companies would acquire, and with the help of adequately equipped scientific laboratories would develop methods of manufacture and train men so that when war came it would be possible to transfer the burden of the mass production of the great bulk of munitions.[103]

The success of the planning can be seen in the fact the full spectrum of the munitions requirements, with only minor exceptions, could be produced in Australia during the war. An example of the success can be seen in the arms production shown in Table 4.

Table 4: Examples of Local Manufactured Arms during 1939-45 - Local and Imported Patterns

Type of Armament	Number
3-inch anti-aircraft gun	24-33 up until 1942
3.7-inch anti-aircraft gun (Static)	600
40-mm Bofors	290 complete guns 700 spare barrels
25-Pdr Field Gun Mk.2	1,527 complete guns 675 spare barrels
25-Pdr Short (Aust.) Field gun Mk.1 & Mk.2	212-213
2-Pdr Anti-tank gun	892
6-Pdr Anti-tank gun	900
17-Pdr Anti-tank gun	128
4-inch Mk.XVI Naval Gun	230
Cruiser Tanks (Aust.) Mk.1 (AC1) 'Sentinel' Cruiser Tanks (Aust.) Mk.3 (AC3) 'Thunderbolt' Cruiser Tanks (Aust.) 'E' series experimental platforms	65 1 3
Local Pattern Carriers (Machine Gun, 3-inch Mortar and 2-pdr Anti-tank types)	158 LP1 MG Carriers 4,763 LP2 & 2A MG Carriers 205 2-pdr Anti-tank 400 3-inch Mortar
Scout Car (Aust.) Dingo	158
Light Armoured Car (Aust.) Rover	238
Artillery Tractors (Aust.) No.3 & 3A	1,287
.303 SMLE rifles No.1 Mk.3*	408,650
.303 Vickers (MMG)	11,601
.303 Bren (LMG)	17,335
Owen (SMG), Mk.1 & Mk.2	45,477
Austen (SMG), Mk.1 & Mk.2	19,904

[103] Mellor (1958: 7).

(RAAHC Draft Manuscript - Kennedy, A. - Bird Gunners; Mellor 1958: 238-239, 241-242, 319, 321, 324, 332; Chamberlain and Ellis 1981: 180; Cecil 1992a 15, 22, 27; 1992b: 5, 20, 38, 41, 44; 1993: 25, 36); pers. com. 2017; Ross 1994: 277, 391-92; Horner 1995: 210).)

The Maribyrnong Ordnance Factory had been built in the 1920s but it was not until 1935 that first order for twenty-four 3inch anti-aircraft guns was placed.[104] Once the war started the demand was beyond the factory's capability and the demand went out to the commercial world. For example, the manufacture of the 25pdr field guns was undertaken by two large engineering firms: Charles Ruwolt Pty Ltd in Victoria; and General Motors Holden in New South Wales.[105] Manufacture of components for the guns was sub-contracted to nearly 200 other firms. 'With the single exception of ball bearings all the 5,000 components of the 25-pounder were made in Australia'.[106]

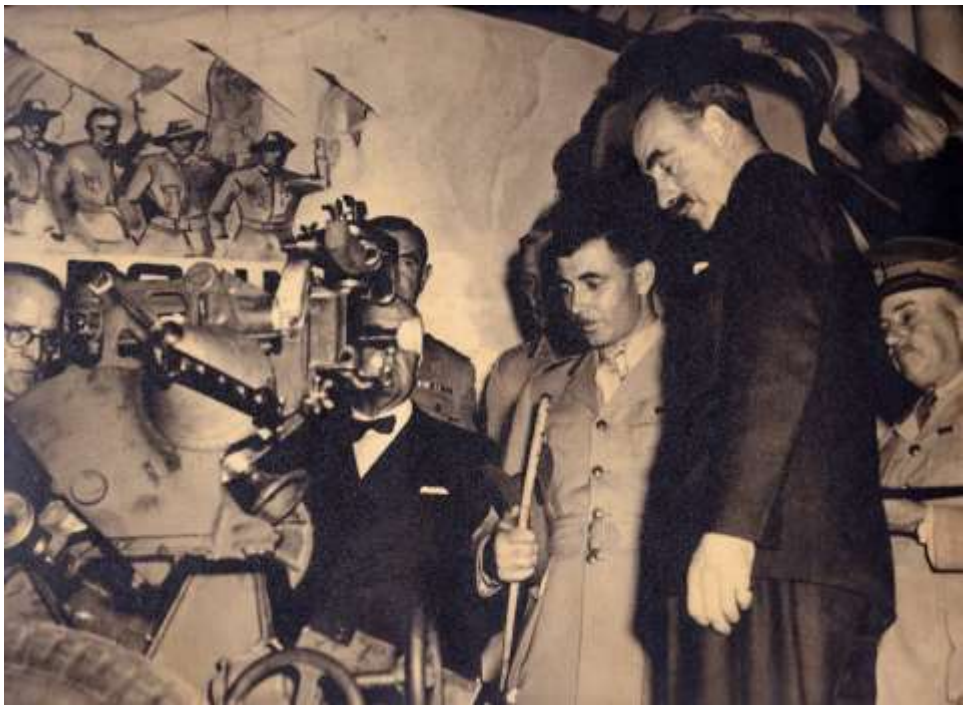


Fig.8: Brig John O'Brien (centre) explains the finer design aspects of the 25pdr (short) field artillery piece to the South Australian Governor Sir Malcolm Barclay-Harvey. (Mike Vanderkelen Collection)

The Australian cruiser tank and Local Pattern carriers (machine-gun, mortar and anti-tank) were also ordered by Army. It is worthy of note that the hull for the cruiser tank was first planned to be cast in six parts which were then to be bolted together, but the skilled foundry men of Bradford Kendall Ltd succeeded in casting it in one piece. This was apparently the first time in the world that this was accomplished in regard to tank production.[107] Similarly, experiments were conducted in Australia mounting the cruiser tank with modified turrets equipped with either a 25pdr, twin 25pdr or 17pdr anti-tank guns.[108] The latter is significant as the British considered it was impossible to fit the 17-pdr in a turret, but when told the Australians had already successfully done so, and based on this earlier Australian work fitting

[104] Horner (1995: 210).
[105] Mellor (1958: 236).
[106] Mellor (1958: 237); Cecil 1992a: 14).
[107] Mellor (1958: 310); Ross (1994: 393).
[108] Mellor (1958: 317–319); Chamberlain and Ellis (1981: 179-181); Ross (1994: 389).

larger guns in turrets and arresting their recoil, the British mounted them in some Sherman tanks to produce the Firefly.[109] The Firefly soon became highly valued as one of only a small number of British tanks capable of defeating at standard combat ranges the Panther and Tiger tanks faced in Normandy.[110]

Production of machine gun, 3inch mortar and 2pdr anti-tank carriers was delegated to major contractors: Victorian Railways' Newport Workshops; South Australian Railways' Islington Workshops; Metropolitan Gas Company's Fitzroy Workshops, Victoria; the Ford Motor Company, Homebush, New South Wales, and the State Engineering Works in Fremantle, Western Australia.[111] These contractors produced the most useful and prolific Australian Pattern AFV during the Second World War.[112]

The ability of Australia to arm itself during the Second World War is not generally appreciated and one must ask where we stand today.

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Select References

Adlam, H. 1980, 'Naval Field Guns', in *The Navy*, Vol. 42 (3), pp.13-21.

Bidwell, S. and Graham, D. 1982, *Fire-Power: British Army Weapons and Theories of War 1904-1945*. Allen & Unwin: Sydney.

Butlin, S. J. and Schedvin, C. B. 1977, *War Economy 1942-1945* (Official History: *Australia in the War of 1939-1945*). Australian War Memorial: Canberra.

Cecil, M. K. 1992a, *Australian Military Equipment Profiles Volume 1: Field Artillery 1939-1945 (25 Pdr Gun; 25 Pdr Short Gun; Artillery Tractors No.3, 3A, 8, 9; Trailer No.27 Mk.1.)*. Australian Military Equipment Profiles: Box Hill (VIC).

Cecil, M. K. 1992b, *Australian Military Equipment Profiles Volume 2: Local Pattern Carriers 1939-1945*. Australian Military Equipment Profiles: Castella (VIC).

Cecil. M. K. 2001, 'Grit: Australia's First Tank', in *Ironsides*, pp.36-41.

Cecil, M. K. 1993, *Australian Military Equipment Profiles Volume 3: Australian Scout and Armoured Cars 1933–1945*. Australian Military Equipment Profiles: Castella (VIC).

[109] Ross (1994: 393).
[110] Ross (1994: 393).
[111] Mellor (1958: 320-321).
[112] NAA MP742/1, 274/2/152; Mellor (1958: 321); Cecil (1992b: 5-6); Ross (1994: 381).

Chamberlain, P. and Ellis, C. 1981, *British and American Tanks of World War II: The complete illustrated history of British, American and Commonwealth tanks*, 1939-1945. Arco: New York.

Courtney, B. C. 1987, Curatorial Guidelines for the Restoration of the German 88 m.m. Anti-Tank Gun Acc.No./03359. Australian War Memorial: Canberra.

Dexter, D. 1968, *The New Guinea Offensives* (Official History: *Australia in the War of 1939-1945*). Australian War Memorial: Canberra.

Diary of a Labour Man 1917-1945. Speeches by the Prime Minister John Curtin on 15 April 1942 in Canberra and 29 March 1944 at the Melbourne Town Hall.

http://john.curtin.edu.au/diary/primeminister/fulltext/fulltext%20prime%20minister_1942_2.html
http://john.curtin.edu.au/diary/primeminister/fulltext/fulltext%20prime%20minister_1944_4.html

Finlayson, D. A. and Cecil, M. C. 2015, *Pioneers of Australian Armour: in the Great War*. Big Sky: Newport.

Franco, L. M. 1996, *El Legendario Cañón Antaéreo de 88mm.: Su historia y evolucíon en el Ejército Español*. Quiron Ediciones: San Cristóbal.

Fripp, B. 1999, 'That 109E in Australia', in *Flightpath*, Vol. 10 (3), pp.18-19.

Gower, S. 1981, *Guns of the Regiment*. Australian War Memorial: Canberra.

Goyne, R. 2014, ''The green light is on': Jump at Nadzab - Australian para-artillerists in action', in *Sabretache*, Vol. 55 (2), pp.40-42.

Horner, D. 1995, *The Gunners: a History of Australian Artillery*. Allen & Unwin: Sydney.

Jackson, C.O. Badham, 1949, *Proud Story: the Official History of the Australian Comforts Fund*. F.H. Johnston Publishing Co. Pty. Limited: Sydney.

James, T. 2009, 'War Bonds or Treasury Bonds? The Australian Difference', in *Australasian Coin and Banknote Magazine*, Vol. 12 (4), pp.50-54.

Johnston, M. and Stanley, P. 2002, *Alamein: The Australian Story*. Oxford University Press: Melbourne.

Lucas Phillips, C. E., 1962, *Alamein*. Heinemann: Melbourne.

Maughan, B. 1966, *Tobruk and El Alamein* (Official History: *Australia in the War of 1939-1945*). Australian War Memorial: Canberra.

Mellor, D. P. 1958, *The Role of Science and Industry* (Official History: *Australia in the War of 1939-1945*). Australian War Memorial: Canberra.

Ministerio del Ejército, 1947, *Cañón Antiaéreo 88/56 Modelos 18, 36 y 44 F.T.: Descripción, Funcionamiento, Entretenimiento y Conservación del Material, Carrillos y Municiones*. Dirección General de Industria y Material: Madrid.

Nelmes, M. V. and Jenkins, I. 2000, *G for George: A memorial to RAAF bomber crews 1939-45*. Banner Books: Maryborough (QLD).

Parker, N. 2013, *Luftwaffe Crash Archive: A Documentary History of Every Enemy Aircraft Brought Down over the United Kingdom. Volume 3: 30th August 1940-9th September 1940*. Red Kite: Walton-on-Thames (UK).

Pearson, D. A. 2000, Display and Power: An archaeological assessment of a German 8.8 cm Flak 36. Unpublished B.A. (Hons.) thesis, Department of Archaeology and Anthropology, Australian National University, Canberra.

Pearson, D. and Bailey, G. 2000, 'Trash for Treasure: The chance recovery of a Japanese 75mm type 88 anti-aircraft gun from Holsworthy', in *Wartime*, Issue 9, pp.45-55.

Pearson, D. and Connah, G. 2009, 'Battlefield Casualty: The Archaeology of a Captured Gun', in *The Journal of Conflict Archaeology*, Volume 5, pp.231-256.

Ross, A. T. 1994, *Armed and Ready: The Industrial Development and Defence of Australia 1900-1945*. Turton & Armstrong: Sydney.

Serle, R.P. (ed.) 1963, *The Second Twenty-Fourth Australian Infantry Battalion of the 9th Australian Division: A History*. Jacaranda Press: Brisbane.

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