DND photo VL2009-0012-09/Corporal Marc-André Gaudreault

A Canadian *Leopard* C1 on exercise at Fort Bliss, Texas, during a sighting adjustment.

"From a Beetle to a Porsche:" The Purchase of the *Leopard* C1 Tank for the Canadian Army

by Frank Maas

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Introduction

The history of Canadian defence procurement has been filled with delays, crises, and scandals, and the impression is of a byzantine system wracked by meddling. The bulk of the analysis on procurement has been critical, exemplified by Aaron Plamondon's examination of the failed *Sea King* replacement in his 2010 *The Politics of Procurement*, but there has been some examination of successes, such as the post-Second World War Canadian aircraft industry in Randall Wakelam's 2012 *Cold War Fighters*. This article will add to the modest number of success stories with an examination of the purchase of the *Leopard* C1 in 1976. The speed of the program compared to most projects was breathtaking – Cabinet directed the army to purchase new tanks in November 1975, approved a deal in May 1976, and the government signed a contract in October 1976. By 1979, the army received 128 modern tanks, on time and under budget. The major reason for the success was that the program enjoyed full political support, however reluctant – every soldier, bureaucrat, and member of Cabinet knew they were a priority.

The second reason was the fiscal and political constraints imposed on the purchase. The contractor, Krauss-Maffei (KM), the German Army (*Heer*), and Department of National Defence (DND) were all cooperative, but above all, the team responsible for purchasing the vehicle knew they needed to field a limited number of tanks quickly and at a reasonable cost, and so they bought a vehicle which was in production and in service, and with a minimum of alterations. This did not mean they bought an unsatisfactory vehicle or the cheapest option, and the *Leopard* C1, as it came to be called, was an excellent tank at the time.

Procurement

The procurement of the tanks was quick and smooth, but the defence policy debate over purchasing them was quite the opposite. After a lengthy review of foreign and defence policy in 1968 and 1969, the Trudeau government announced plans to reduce 4 Canadian Mechanized Brigade Group in Europe by half and replace its *Centurion* tanks with a lighter vehicle, likely the British reconnaissance vehicle, the *Scorpion*. This angered Canada's North Atlantic Treaty Organization (NATO) allies, but they could not convince Trudeau to reverse course, and the plan was confirmed in the 1971 defence white paper, *Defence in the 70s*. The following year, the government announced plans to develop trade links with Western Europe and Japan, the "Third Option," to reduce dependency upon the United States. Attempts to foster a contractual link with the European Economic Community began in 1973,[1] and it quickly became apparent that the Europeans were resentful of the reduction of the brigade in 1969, and pressed Canada to beef up its defences in Europe. An intensive review of Canada's armed forces, the Defence Structure Review, began in 1974, and NATO allies, particularly West German Chancellor Helmut Schmidt, prevailed upon Canada's diplomats, soldiers, and Trudeau himself to reverse the 1969 decision and keep tanks in Europe. The suggestion was that if Canada wanted trade with Europe, it would have to help defend Europe. The army in the person of Chief of the Defence Staff (CDS) General Jacques Dextraze also pressed Trudeau to buy new tanks. After a series of discussions with Helmut Schmidt over the spring and summer of 1975, a reluctant Trudeau finally agreed to a limited purchase of tanks to equip Canada's troops in Europe and provide a training cadre at home, and the government announced this decision in November 1975. It was begrudging support, but everyone in government and bureaucracy knew that the tanks were a priority.

"General Dextraze had started work early on a replacement or modernization of Canada's venerable *Centurions*, but would have to work fast because the tanks were twenty-five years old and difficult to keep in service."

General Dextraze had started work early on a replacement or modernization of Canada's venerable *Centurions*, but would have to work fast because the tanks were twenty-five years old and difficult to keep in service. Although the Dutch had rebuilt two dozen *Centurions* in 1974, they still imposed a heavy maintenance burden and broke down frequently. In June 1975, the army submitted a report to Dextraze on the options for new tanks. The prototypes of the West German *Leopard* 2 and the American M1 *Abrams* promised to be impressive vehicles with the latest technological advances, but unfortunately, they would not be in service for several years, and would be very expensive. Canada would likely only start receiving tanks in the mid-1980s after the Germans and Americans had equipped their armies, and the *Centurion* would not last that long without another costly rebuild. The army would need a tank in-service, and it discounted the formidable British *Chieftain* because it was too slow, and like the *Centurion*, difficult to maintain. The three major contenders were a modernized *Centurion* with a new engine, transmission, improved suspension, and fire control system for the main gun, the German Leopard 1, and the American *M60A1*. The army ranked the *Leopard* 1 as the most effective tank, but it was also the most costly. 113 modernized *Leopards* would likely cost $146 million, while 113 *M60A1s* would cost $94.1 million, and 113 *Centurions* only $58 million. The Chief of Land Operations at National Defence Headquarters (NDHQ) in Ottawa, Major-General G. G. Brown, recommended the *Centurion* upgrade because it was the cheapest, and that they should be modernized immediately before the tanks were totally worn out.[2] Dextraze passed this memo on to Trudeau's foreign policy advisor Ivan Head, and emphasized that although the hulls were over twenty-five years old, a modernized *Centurion* was still a first-class tank.[3]

DND/CFJIC photo CFC67-101-10

A Canadian *Centurion* tank on exercise in West Germany.

Christian Charisius/Reuters Image ID RTR1QZP7

A *Leopard* 2A6 of the German armed forces *Bundeswehr* during a demonstration at Exercise Area Munster, 20 June 2007.

Image ID E54CM1 © Colin C. Hill/Alamy Stock Photo

A British *Chieftain* Mk 10.

Captain Viet Nguyen/ DVIDS Photo ID 1941356

An M60A1 tank of the Royal Jordanian Armed Forces.

This assessment disquieted Canada's Department of External Affairs. In late-August 1975, Gordon Riddell, from the External Affairs' Bureau of Defence and Arms Control Affairs, expressed his concern with respect to the army's preference for a *Centurion* retrofit to Under-Secretary of State for External Affairs, H. B. Robinson. Riddell stated that Major-General Ramsey Withers thought a retrofitted *Centurion* was qualitatively superior to the *M60* or the *Leopard*, and would also be much cheaper. Riddell's biggest concern was that NATO allies would scoff at a rebuilt *Centurion*, and Canada would squander any benefits from the decision to keep tanks, especially with the ongoing negotiations for a trade link with Europe. He suggested that Robinson discuss the matter with Dextraze, and take care to emphasize that he was only addressing the *foreign policy*, not the *military* implications of the purchase. Riddell also suggested that Robinson should gently approach the issue of whether the retrofitted *Centurion* was really superior, or if Dextraze had decided that it was the most palatable option for Cabinet Ministers and the other services.[4]

Robinson duly met with Dextraze for a lunch meeting, and reported that the general's mind was still open with respect to the tank. His first choice was the *Leopard* 2, but it would not be in production for at least three years. Dextraze's next choice was for a *Centurion* retrofit, and he said that this would give Canada a tank superior to the *Leopard* 1 or *M60*, and would be much cheaper. Robinson raised the possibility of a rental of *Leopard* tanks, but Dextraze said that this was "lacking in dignity and self-respect for Canada," although he would accept it if there were no alternatives. The *final* option was to carry on with the *Centurion* for another four or five years and wait for another decision.[5]

This discussion might have prompted Dextraze to explore other options, because a few weeks later, he sent some high-ranking soldiers and bureaucrats to Germany to discuss the acquisition of the *Leopard*. They received general cost information, as well as notice that it would be twenty-two months before the Canadians could receive their own vehicles, but the Germans could loan thirty to thirty-five tanks as an interim measure.[6] Dextraze also recalled that he persuaded the head of the German armed forces to arrange a meeting between himself and the German defence minister, Georg Leber, asking him for about a hundred new tanks. Dextraze stated he "…got him [Leber] to agree by stressing that PET [Trudeau] was usually in disagreement with everything, but that he had agreed to a new tank."[7]

The army did not want to wait for new tanks, and the Department of National Defence allocated funds for the replacement or modernization of 128 new tanks on 27 November 1975.[8] This number would equip Canada's troops in Europe with roughly ninety tanks, and the remainder would be used for training at home. Some in the army began talking about buying 156 tanks, and Dextraze was infuriated, fearing that the higher number would ruin his credibility with Prime Minister Trudeau and his staff. The Chief of the Defence Staff brought in senior members of the requirements staff and the armoured corps, lined them up in a conference room, and shouted that they were embarrassing him as he had already passed the number of 128 to his political masters. He then picked up a heavy ash tray and threw it at the wall (the ash tray did not break), and then asked each officer whether the number was 128 or 156. Each officer said 128.[9]

Private Matthew Callahan/US DoD Photo ID 2001583221

An M1A1 *Abrams* tank drives down a dirt road on Camp Lejeune, North Carolina, 21 July 2016.

The army formed a Project Management Office to look at the possibilities for a *Centurion* modernization, long-term lease of tanks, or a new purchase in December 1975. The key figures in the purchase were the Project Manager, Lieutenant-Colonel Dave Hampson, and his civilian partner, Robert Bradshaw, at the Department of Supply and Services, the purchasing arm of the federal government in the 1970s. The Project Director in charge of combat requirements was Major Ken Black, assisted by Major Jim Gervais, tasked to the project in 1977. The Deputy Project Manager as well as the Project Engineer was Major Mac Campbell, replaced by Major Gerry Koeller in 1978. Major Larry Brownrigg managed and tracked expenditures.[10] Their work was reviewed by a Steering Committee, and the most important oversight was from the Senior Review Board, composed of high-ranking officers and bureaucrats from the Departments of National Defence and Supply and Services.[11]

Dextraze, Hampson, Bradshaw and Jim Fox, a colonel and senior planner for the army, met on 2 December 1975 to discuss the plans. Dextraze asked if Fox could live with a rebuilt *Centurion*, to which Fox answered, "yes." The general then said that a new tank might be a possibility, and that he wanted the options on his desk by 20 December. The team put a roll of paper around their room, and charted out when the various tanks would be available, and the support and logistics required for each option. Like earlier reports in 1975, they ruled out the M1, *Leopard* 2, and *Chieftain*, leaving the modernized *Centurion*, *Leopard* 1, and the *M60*.

They studied the costs and benefits of a *Centurion* retrofit, which would involve replacing the entire power pack (cooling system, engine, suspension, and drivetrain) with newer and more reliable models. A modernized *Centurion* would indeed be serviceable, and its mobility and reliability would be greatly improved, but the team concluded that this option, although cheaper in the short-term, was undesirable. In the team's terms, it would be a "bastard" tank that no one else would be using in Europe, and the Canadians would pay a premium for spare parts for a small fleet.

Ultimately, the team preferred the *Leopard* 1. It was relatively light for a Main Battle Tank, forty-seven tons to the *Centurion*'s fifty-six, and it had less armour, but it was fast and reliable, and armed with the same 105 mm gun as the *Centurion*. It was newer than the *M60*, and the Germans had already mentioned that they could loan the Canadians some tanks, and KM could produce vehicles for the Canadian army, likely in 1978. The team concluded that the best option was to rent tanks from the German Army for two years to finally retire the *Centurions*, and field their own *Leopard* 1s in 1978. Spare parts and support from allies would be plentiful because there were thousands of these in service with Germany and other countries.[12] It was also in production. The Australian army had tested the *M60* against the *Leopard* 1 in 1972 and 1973, and decided to purchase 101 *Leopards,* which were in production from 1976 to 1978. The Canadian plan was to buy the Australian variant with only minor alterations to avoid significant re-tooling or developmental charges.[13] National Defence's highest committee approved the program on 5 April 1976, and the next stop was Cabinet.[14]

Cabinet met to discuss the tank purchase just a few weeks later, on 20 May 1976. The memo that the ministers read compared the modernization of the *Centurion* to a purchase of new *Leopard* 1s. The British company Vickers submitted a proposal to retrofit *Centurions*, but had never rebuilt them in quantity, so there were many unknowns associated with the project. Vickers estimated that it could deliver refurbished *Centurions* starting in April 1980 and finish the program by January 1982, but this would necessitate a rebuild to squeeze a few more years out of Canada's existing tanks. The army's estimate for the overhaul of 128 *Centurions* was $65 million, close to the estimate of $60 million of 113 *Centurions* from the summer of 1975, but the total project costs had risen to roughly $150 million. The major increases were a contingency fund of more than $20 million, logistics support of roughly $25 million, and a $16 million rebuild of *Centurions* to keep them running until the overhauled tanks came into service in 1980. Vickers also promised $10 million worth of Industrial Regional Benefits, a contractual obligation to buy Canadian products to offset the costs of the purchase.

"The British company Vickers submitted a proposal to retrofit *Centurions*, but had never built them in quantity, so there were many unknowns associated with the project."

DND/CFJIC photo IL72-75

A *Centurion* tank stands sentry during the early morning fog.

CWM 19900240-010/Beaverbrook Collection of War Art, Canadian War Museum

A *Leopard* C1 on exercise.

The memo argued that the *Leopard* was a much more attractive alternative which met Canada's need at a reasonable cost, and it would be easier to field and maintain. It was also more expensive – 128 *Leopards* would cost around $160 million. New tanks could start arriving in January 1978, and the order completed by April 1979. KM, with a good reputation for fulfilling offset obligations, could offer Industrial Regional Benefits worth 30 to 50 percent of the value of the contract. Allies would likely be happy with either option, but a *Leopard* would obviously help German-Canadian relations, and it was less risky than the Centurion modernization. The paper concluded that the government should buy 128 *Leopard* 1s, and negotiate to dispose of the *Centurion* fleet through KM.[15]

Cabinet was prepared to accept this recommendation, and there was a minimum of discussion on the matter. The foreign minister, Allan MacEachen, sent a message from Europe that he was being criticized by NATO allies for the recent cancellation of a major Canadian procurement program for a long range patrol aircraft, and wanted to deflect this with a firm statement on Canada's plans for new tanks for its forces in Central Europe. Most ministers were sympathetic, but did not want

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During Exercise *Certain Sentinel* in early-1979, a Canadian *Leopard* in a village in western Bavaria.

to prejudice negotiations with KM. Trudeau was adamant that the "…final decision on procurement of the Leopard be subject to the successful conclusion of iron-clad undertakings on the part of the suppliers, particularly with respect to offsets [Industrial Regional Benefits]." Cabinet agreed that the military could purchase 128 *Leopards* and loan thirty-five tanks as an interim measure, and sent word to MacEachen that he could announce this decision to NATO allies.[16]

National Defence wanted to finalize the deal by late-September, and guarantee that it could squeeze its order in before KM geared up to produce *Leopard* 2s for the German Army.[17] The negotiations took place at KM's main plant during the summer shutdown, and every report on the negotiation from multiple government offices noted that it went smoothly, and that there was a cordial relationship between the Canadians and the Germans. In a report, Hampson commented: "They [KM] negotiated as very tough and knowledgeable businessmen, but once an agreement was reached the firms were dedicated to achieving [sic] their contract obligations."[18] Deputy Project Manager Mac Campbell stated that there was real trust between the Canadians and Germans as they negotiated during KM's summer shutdown, and there were no significant problems. The Canadians were impressed by the company's professionalism and their intimate knowledge of the vehicle, and could talk directly to the firm's design and engineering staff.[19] The negotiations were completed by 6 August 1976,[20] and the contract was signed on 12 October 1976.[21]

The first German rental tanks, *Leopard* 1A2s, started arriving in late-1976, and the full complement of thirty-five had arrived by April 1977.[22] The Germans scrounged for tanks to equip the Canadians, even taking some from a training range in Wales, and in all supplied thirty-two gun tanks, two recovery tanks, and one bridgelayer. The total cost of the rental of thirty-five tanks for roughly two years was $2.7 million, a bargain price that basically covered the cost of inspecting and repairing the tanks after the Canadians had returned them.[23] When the 1A2s started arriving, Clive Milner, Commanding Officer of Canada's armoured regiment in Europe, the Royal Canadian Dragoons (RCDs), recalled that he asked Technical Services in Ottawa to translate the *Leopard* manuals. They responded that it would take two years. The army obviously could not wait this long, so the RCDs sent some officers to the German Armoured School in Münster in October 1976 to develop training materials and an instructor cadre for the rest of the unit. An officer named Harry Mohr was instrumental in helping the regiment adapt to the Leopards.[24] His parents were Sudeten Germans who had immigrated with him in 1956 when he was eleven, so Mohr could speak German, and he and some other soldiers literally cut and pasted from the German manuals as they developed materials to train Canadian troops, and developed adaptation courses in gunnery, driving and maintenance, communications, and also a course for crew commanders.[25] The Canadians ran these courses in January 1977, and the training was rushed, but it worked, and the brigade was operational with the rental *Leopards* in mid-1977.

End of an era… The last roll past of Canada's *Centurion* tanks, 21 June 1977.

In the rental agreement, there was a usage limit of 1450 kilometres imposed for gun tanks for the first year, and 1200 for subsequent years, and these were well in excess of the *Centurion*'s capabilities.[26] The turret and crew compartment of the *Leopard* was smaller than the *Centurion*, but it was almost twice as fast.[27] The *Centurion* retained its edge in armour, but this had made the tank so heavy that it could not cross some bridges, and its tracks would rip up the asphalt on roads. Milner also noted that the brigade's tactics changed, and that the infantry in armoured personnel carriers did not have to wait for the slow *Centurions* to catch up. He stated that the transition was "like going from a Beetle to a Porsche."[28] The *Leopard* was also much easier to maintain. An engine change on the *Centurion* could take up to forty-eight hours, but Terry Seeley noted that a good crew could change an engine on a *Leopard* in fourteen minutes.[29] This might have been a

CWM 19790111-001/Canadian War Museum/MCG photos

The first Canadian *Leopard* C1 tank being driven off the production line in Germany by Lieutenant-Colonel Dave Hampson, 29 June 1978. Major D. Henderson stands in the background.

CWM 19790111-006/Canadian War Museum/MCG photos

The first Canadian *Leopard* C1 tank outside at the handover ceremony, 29 June 1978. Left to right, Major D. Henderson, Major Terry Seeley, and then-Lieutenant-Colonel Clive Milner of the Royal Canadian Dragoons, and then-Brigadier-General Jim Fox.

record, the reliability and ease of maintenance of the *Leopard* were dramatic improvements over the *Centurion*.[30] The *Leopard* engine also used diesel fuel, not gas like the *Centurion*, so it was easier to get fuel from German or American stocks.[31]

The first batch of *Leopard* C1s rolled off KM's lines in July 1978, and arrived at Gagetown in August 1978, where they replaced Canada's last *Centurions* still being used for training.[32] The school sent driving and maintenance instructors to the RCDs in Germany, and some gunnery instructors went to a NATO armour school in Belgium.[33] There were some wrinkles, and the manuals needed to be completely rewritten. The driving and maintenance manual took eight months to produce, and had to be written into "Canadianese," and the French manual was also difficult. They did this work in-house at the school.[34] In the interim, they relied upon manuals developed during the rental period and Australian manuals,[35] but they were still not completed by the time the Project Management Office for the *Leopard* closed in 1981.[36] However, this was a

small problem in the grand scheme of the purchase, and once the crews and instructors had adapted to the tank, things ran smoothly. The tanks at Gagetown were run nearly twenty-four hours a day upon arrival, and there was fear of wearing them out.[37]

The Canadians in Europe received their first C1s in late-1978, and returned the rentals, four a time, as the new tanks came in. The two-year rental of the *Leopard* 1A2s was good training and preparation for the arrival of the C1s, and the army put the new tanks through their paces with two major exercises in late-1979.[38] The introduction was smooth, and unlike some other pieces of equipment, the *Leopard* 1s were fully operational upon delivery.[39] The major differences between the rental 1A2s and the C1s were a larger turret with spaced armour, and the Belgian SABCA fire control system with a laser range-finder. The SABCA was the most advanced system in service on *Leopard* tanks, and it was accurate and quick.[40] It had seven sensors which accounted for wind speed or temperature and automatically adjusted the gun,[41] but it suffered from some teething problems. In one instance, the system did not account for the heat expansion of the turret during repeated firing, and at long distances, rounds would miss just long of their targets.[42] On sunny days in the summer, the top of the gun barrel would droop slightly because of the heat, and rounds would miss just below the target.[43] These unanticipated problems were common to all nations which used the SABCA system,[44] and after some consultation with the manufacturer, they were resolved.

"The Canadians in Europe received their first C1s in late-1978, and returned the rentals, four at a time, as the new tanks came in."

Despite these problems, the arrival of the *Leopard* was a morale booster. Its major advantages over the *Centurion* were its speed and reliability, and an army report from 1982 noted: "The mechanical performance of the fleet to date has been good and is an outstanding improvement over the *Centurion*."[45] Colonel Hampson noted that personnel worked overtime to make the introduction a success, and maintenance, logistics, and training personnel had a hard time keeping up with demand. Overall, eighty-seven *Leopards* were in Europe to equip a full regiment of tanks with war stocks, thirty-one went to Canadian Forces Base Gagetown for training, and the remainder were distributed across Canada at other schools and facilities.[46]

The Germans had also established what was called the "*Leopard Club*," an organization for the exchange of information on training, logistics, operational use, and improvements by nations that operated the tank. Three major sub-groups of the *Leopard Club* – Combat Improvement, Training, and Logistics – would meet twice a year at meetings coordinated by the Germans.[47] Canada joined the *Leopard Club* in early 1977,[48] and these meetings produced reams of technical data. This kind of detailed discussion allowed the army to quickly resolve many problems and adopt the best practices from other countries, and the army saw the *Leopard Club* as being very beneficial.[49]

The *Leopard Club* also facilitated the supply of spare parts and repairs for the *Leopard* fleet. Each year, member nations would submit their requests for spare parts and rebuilt assemblies to the German Ministry of Defence, and the Germans would make spare parts available for pick-up at their supply depots. The Canadians in Europe picked up their spare parts at a German army depot at Herbolzheim, eight miles from the major base at Lahr. Canada joined this arrangement in 1977, and the only wrinkle was that the Canadians needed longer lead times for spare parts for the *Leopard* fleet in Canada, which would take time to arrive by sea.[50]

The final feature of the purchase was offsets, or Industrial Regional Benefits. Trudeau had emphasized this in Cabinet, and the procurement of the *Leopard* C1 was the first major Canadian procurement program to require foreign contractors to spend a proportion of the contract's value in Canada. Despite KM's hesitation, the Canadians secured contractual obligations for KM to spend 40 percent of the contract's value in Canada within ten years, and best efforts to get to 60 percent. The criteria were entirely quantitative, and there were no requirements for licence production of parts or assemblies in Canada or technology transfers. Only manufactured products counted as offsets, although some semi-processed materials were acceptable. The value of the offset was determined by the Canadian content of the product, whether it was labour, raw materials or transportation. KM negotiated the provision that any purchases by its holdings or associated companies would count against the offset targets, as long as there was some proof that it occurred because of the efforts of the contractor.[51] The costs for administering the offset program amounted to roughly $1.3 million, which were folded into the price of each vehicle.[52]

In the summer of 1976, representatives from KM's sub-contractors visited Canada to canvas possible Canadian companies for offsets, and returned in December. They showed interest in electronics, as well as fine castings and wood products, but none of these purchases was likely to be directly related to the production of the *Leopard*. By January 1978, KM had $19 million worth of orders in Canada, of which $10 million had been backed up by formal contracts, and this represented 28 percent of the commitment.[53] By November 1979, it had met 40.5 percent of the total offset commitment,[54] and four years after the contract was signed, KM had reached 54 percent of their obligation for offsets in the ten year period.[55] Most of the money went to Ontario and Quebec for manufactured components. Therefore, in May 1980, the Department of Industry, Trade, and Commerce sponsored a trip for sixteen representatives from twelve German firms to show off Canadian companies from the Maritimes and the West. By 1982, KM was close to the requirement, and had spent 32 percent of the entire contract value in Canada.[56]

Although the Canadians received a new tank on time and under budget, there was some criticism that Canada was getting an old tank. It was true that Canada got some of the last Leopard 1s to be produced, and the generation of tanks fielded by allies in the early-1980s, the M1 *Abrams*, *Leopard* 2, and the *Challenger*, were significantly better than the *Leopard* 1. The Soviets also improved their armoured forces, and factories in the Urals continued to churn out new and improved tanks. In the Standing Committee on External Affairs and National Defence, critics continually pressed military officers and the Minister of National Defence (MND), James Richardson, then his successor Barney Danson, as to why Canada had purchased the *Leopard* when allies were on the cusp of introducing new tanks with larger guns.[57] In December 1975, Andrew Brewin, defence critic for the

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A *Leopard* C1 tank of the Royal Canadian Dragoons during Exercise *Fallex* 84 in Bavaria during annual NATO fall manoeuvres.

New Democrats, asked Dextraze if it would not be better to refit the *Centurion*, and buy a state-of-the-art tank ten years down the road, rather than buying the *Leopard* 1. The general responded with some home-spun wisdom. He said: "My father used to say, wait for two years and you will get a much better car; when the two years were up he would say, wait another two years because it's going to be even better then."[58] General Dextraze and the army knew that the window of opportunity, both fiscal and political, might not be open for long.

Conclusions

This imperative set the stage for a successful procurement. Canada's allies demanded a serviceable tank and would not wait ten years for something better, and although the *Centurion* had given a good account of itself, it was finished. The army's initial interest in a rebuilt *Centurion* was warranted, and the Israelis had used them effectively in combat, but it was clear after closer inspection that standardization with allies would greatly simplify supply, and the project team's choice of KM's *Leopard* was effective. The company had produced thousands of these tanks since 1965 for various customers, and Canada effectively bought "off-the-shelf." There were few major alterations to the vehicle, and consequently little technical risk with the project, and very little cost fluctuation – the army's estimate for the tanks was $110,099,500.00, and the actual cost was $114,010,700.00.[59]

The Germans were also accommodating at all levels of government, industry, and military. They did their best to ensure that the purchase moved along quickly, and did not take advantage of the Canadians, despite being the sole source. The government and army helped the Canadians with the bargain price for rental tanks, and ensured that the Canadians were trained, and had enough spare parts and maintenance knowledge to keep the tanks running. The maintenance of NATO's vitality was a priority for the Germans, and it is no surprise that they helped the Canadians after Chancellor Helmut Schmidt made it a priority in discussions with Prime Minister Trudeau.

The fundamental reason for the success of the purchase, however, was its clear and unambiguous political support. In many analyses of procurement, there is the criticism that politics, whether in the form of favouritism with contractors, or arbitrary decisions made without regard for professional military advice, makes acquisitions more costly and endangers soldiers in the field. This was not the case with the *Leopard*, where politics was not a *liability*, but an *asset*. Trudeau did not want to buy the tank, but he had been convinced that they were necessary to facilitate Canada's broader foreign policy objectives, so there was no doubt that the army would get tanks, and get them quickly. Although General Dextraze carved out a place for the *Leopard* 1 in the defence budget, he could do little without the prime minister's approval. No project, however necessary or well-managed, can prevail against a sceptical Cabinet or prime minister who do not see the political utility of major projects. The *Leopard* C1 had this support, however begrudging, and when combined with the wise choice of a proven, in-service vehicle and accommodating contractor, it proved to be one of the more successful procurements of the Cold War.

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NOTES

DND photo AR2011-0034-001/Corporal Tina Gillies

A Canadian *Leopard* 2A6M from the 12th Canadian Armoured Regiment conducts a road move on Route *Hyena* (Panjwa'i Road) in the Horn of Panjwa'I, Afghanistan, 5 February 2011.

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