

89-1753

MEMORANDUM

2942-1-7 (ILSM MILLAV)

27 Jul 89

DCMEM 2

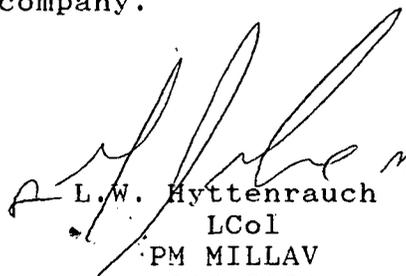
FMC CORPORATION - REQUEST
FOR LIFE CYCLE COSTS OF M113 FOV

PMO	SECTION
78	78 1989
P.A. TO FILE NO:	32465-100-008
OR	
DISCARD	<input type="checkbox"/>

- Refs: A. FMC Corporation letter 21 July 1989 (encl)
B. Telecon LCol McLeod/ Maj More 26 Jul 89
C. FMC Corporation letter June 9 1989 (encl)
D. 8055-22 (LRMP 2-2) 17 Oct 88 (encl)

1. During recent discussions between FMC Corporation and PMO MILLAV, it became apparent that the CF life cycle cost data differed from that quoted by the company. FMC Corp has based their figures on US Army figures, while the CF has developed their own costs.

2. FMC has asked that a copy of the CF life cycle costs be sent to them (Ref A). It is requested that DCMEM respond to this request and deal direct with the company.


L.W. Hyttenrauch
LCol
PM MILLAV
995-2080

Enclosures: 3

89-1818

FMC Corporation

Defense Systems International Division
881 Martin Avenue Box 58123
Santa Clara California 95052
408 289-0111

PMO	
SECTION	
JUL	26 1989
P.A. TO FILE IN	33460-100
OR	
DISCARD	<input type="checkbox"/>

cc
FMC

21 July 1989

① Lt/Col. L. W. Hyttenrauch
Project Manager
Project Management Office
MILLAV, The Vanier Building
222 Nepean Street
Ottawa, Ontario K1A 0K2
Canada

Reference: Discussions 23 June 1989 Regarding M113 Vehicles for Land Reserve Modernization Program (LRMP)

Subject: Life Cycle Cost Data for the M113 Personnel Carrier

Dear Colonel Hyttenrauch:

We would like to take this opportunity to thank you and your staff for meeting with FMC on the LRMP project. It was a very beneficial meeting and served to clarify a number of areas where FMC's intentions and commitments (regarding the LRMP program) required additional information. In addition, my subsequent letter of 26 June 1989 provided further and more specific clarification of the overall situation.

During the meeting, the issue of life cycle cost was discussed at some length. We were most interested to learn that the Canadian Government had developed cost data which was based on their experience with the M113, and that this data differed somewhat from the costs developed by the U.S. Army. As agreed to during the meeting, we look forward to receiving a copy of the Canadian Forces M113 life cycle cost data.

Your efforts in this matter are greatly appreciated. If you have any questions about this, or any clarifications of the aforementioned letter are required, please feel free to contact me.

Regards,

DE Doyle

David E. Doyle
Director, International Business

mkf

② NTF
Spoke to lead McLeod
They can try to
respond but there
may be something
else in FMC file
that would
explain. Check
165A
22/7/89

③ PA
Processed to
DCMEM
for response
165M
27/7/89

MEMORANDUM

①

3136-5-2460 (ADM (Mat))

01 Jul 89

89-1610

MSO/MND

MILITIA LIGHT ARMoured
VEHICLE PROJECT

PMO	- MILLAR
Capt LaV SECTION	
JUL 17 1989	
P.A. TO FILE NO:	2942-1-7
	OR 32460-10-008
DISCARD	<input type="checkbox"/>

1. Enclosed is a self-explanatory aide-mémoire for the Minister and Associate Minister on FMC Corporation's recent representations to meet the requirements of the Militia Light Armoured Vehicle Project.

2. These representations do not change our assessment that the requirements should be met by acquiring wheeled vehicles from the Diesel Division of General Motors (with the minor exception of a handful of field engineering and anti-armour vehicles, for which FMC's M113s are better suited).

E.J. Healey
ADM (Mat)
992-6622

② PA
PA t. 2942-1-7

P. LaV
CAPT
PMO MILLAR
18 JUL 89

AIDE-MÉMOIRE

FOR THE MINISTERS

SUBJECT: Recent Representations by FMC Corporation on the Militia Light Armoured Vehicle Project.

BACKGROUND

1. Over the past year, FMC Corporation has made repeated representations to meet DND's light armoured vehicle requirements. Since January 1989, the company has focused its efforts on the Militia Light Armoured Vehicle Project.

2. In July 1988, the company recommended production for what it considers a relatively small quantity of 200+ vehicles at its San José, California facility. Then, presumably after learning of the proposed procurement strategy to acquire General Motors' wheeled vehicles for the majority of the requirement, FMC proposed teaming arrangements with:

- a. General Motors, whereby the latter would participate in production of tracked M113 vehicles (January 1989); and
- b. an unspecified Western Canada company (June 1989).

3. Because FMC indicated it had not had the opportunity to discuss its proposals with DND officials, the Project Manager, Project Director, and Procurement Manager for the project met with company representatives on June 23, 1989. The company followed up with a June 26 letter on industrial and regional benefits to the Project Manager.

DISCUSSION

4. Defence Industrial Base Considerations.

- a key purpose of the project is to preserve Canada's only existing light armoured vehicle manufacturing capability at the Diesel Division of General Motors. (The Crown invested \$34M in establishing the capability). The order would maintain the capability until anticipated export sales result in production commencing 1991. FMC's latest proposal to involve a Western Canada company in production (primarily assembly and test) would displace the existing capability without providing firm prospects for sustaining the new one; and

.../2

- 2 -

- General Motors has rejected production of M113s as impractical. Conversion from steel to aluminum processing and welding would mean plant conversion and expansion. The resultant delay of up to two years before manufacture could commence would not help its critical production and employment situation.

5. Industrial and Regional Benefits.

- FMC has been consistently vague on industrial and regional benefits that would result from Canadian participation in the production of M113s;
- at the aforementioned meeting, representatives stated that Canadian participation would mean direct and indirect benefits equalling 100% of the total contract value;
- representatives indicated that entire production at FMC's San José plant would mean direct and indirect benefits equalling 70-75% of the total contract value;
- in the June 26, 1989 letter, FMC states that, if M113s were manufactured at San José, then it "is prepared to offer Industrial Benefits in Canada to a level of 150% of the contract value with a minimum of half of it being state-of-the-art military related";
- this claim is based on Canada becoming "our eventual production base for future worldwide requirements, for the M113 FOV (Family of Vehicles) when the US government requirements diminish to the point that production in our San José plant is no longer viable";
- however, at the meeting, the company's officials could not specify what export sales prospects are for the M113. In this regard, it should be noted that FMC has licensed several countries to make M113s, thus limiting the potential for Canadian industrial involvement in future sales);
- by contrast, acquiring GM's wheeled vehicles would mean industrial regional benefits totalling 100% of the contract value (60% direct and 40% indirect benefits; of these, 15% in Western Canada and 15% in the Atlantic) plus at least 40% Canadian content on

.../3

- 3 -

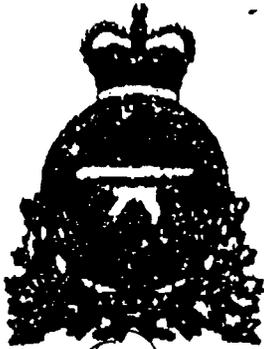
anticipated export sales of 1,100 vehicles from 1991 to 1996.

6. Life Cycle Costs. Prior to and at the meeting, FMC provided information that confirmed DND assessment that the life cycle cost (capital plus operating and maintenance costs) over 20 years for GM's wheeled vehicles would be at least \$10M (\$89/90) less than that for M113s manufactured with Canadian industrial participation.

7. Operational Requirement. The Project Director advised the company that both tracked and wheeled vehicles would meet the operational requirement. However, given the emphasis on territorial defence, wheeled vehicles are generally better suited.

CONCLUSION

8. The recent information that FMC has provided does not change the assessment that GM's wheeled vehicles should be procured for the Militia Light Armoured Vehicle Project (with the minor exception of 14 field engineering and eight anti-armour vehicles, for which M113s are better suited).



THE OFFICE OF THE CHIEF OF SUPPLY
LE BUREAU DU CHEF
DE L'APPROVISIONNEMENT

3
DG Proc S (by fax)

4
DPS
your own action
to the DG Proc S 11.7.89
M. Hunt (now)
DG Proc S

1. CS' min 2 reads:

" Pls prepare short aide-memoire for the Ministers reporting on this meeting and letter (both life cycle cost and IBo) concluding that it doesn't change our assessments."

2. Covering memo should be Mr. Healey to MSO. TO to CS 12.7.89.

6.7.89

DG Proc S
JUL 6 1989
1453

S.F. TILLEY
MAJOR
SO/CS
995-7767

TRANSIT RECORD

File Reference 3136-5-2460

CLASSIFICATION

CS 29-6-89

MEMORANDUM

3136-5-2460 (DPSL 2)

Distribution List

INFORMATION SUBMITTED BY
FMC CORPORATION ON
MILLAV PROJECT

Ref: 3136-5-2460 (DPSL 2), 26 Jun 89

1. As indicated at Ref, PM MILLAV, PD LRMP and I met with FMC Corporation representatives on 23 Jun 89.
2. The purpose of the meeting was to give FMC the opportunity to provide information on its proposals for meeting the MILLAV requirements.
3. As a follow-up, the company has submitted the enclosed letter, which provides additional information on industrial benefits. The letter basically states that, if M113s were manufactured at FMC's American facility, then the company "is prepared to offer Industrial Benefits in Canada to a level of 150% of the contract value with a minimum of half of it being state-of-the-art military related". The level is 50% more than the company indicated at the 23 Jun meeting. The correspondence does not indicate the period of time over which the benefits would be achieved.
4. From the enclosed letter, it appears that FMC would achieve the benefits by focusing "on Canada as our eventual production base for future worldwide requirements for the M113 FOV (Family of Vehicles) when the US government requirements diminish to the point that production in our San José plant is no longer viable".
5. FMC's intention must be tempered by two factors, which emerged from the 23 Jun 89 meeting with its representatives:

- a. the company does not have a clear picture of its future export prospects; and
- b. it has licensed several countries (including Netherlands, Belgium, Italy, Turkey, Pakistan) to make M113s, thus limiting the potential for Canadian industrial involvement in future sales.

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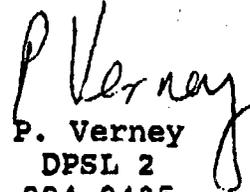
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spec info*

c. extremely soft and fuzzy

- 2 -

6. Also, because GM has sound prospects for downstream export sales, the long-term benefits weight in its favour.

7. The additional information is still of a general nature and should not impact on our proposed procurement strategy.


P. Verney
DPSL 2
994-9435

Enclosure: 1

DISTRIBUTION LIST

<u>Action</u>	<u>Information</u>
CS	CEM DG Proc S DPSL PM MILLAV PD LRMP

FMC Corporation

Defense Systems International Division
881 Martin Avenue Box 58123
Santa Clara California 95052
408 289-0111

①



By courier

June 26, 1989

Lt/Col. L.W. Hyttenrauch
Project Manager
Project Management Office
MILLAV, The Vanier Bldg.
222 Nepean St.
Ottawa, Ontario
K1A 0K2

②
Mr Verney
1. We discussed.
2. For your retention and follow on action
26 Jun 89
AM MILLAV

Dear Mr. Hyttenrauch:

The purpose of this correspondence is to clarify and update FMC's proposal for Industrial Benefits associated with the LRMP vehicle procurement as a result of last Friday's meeting with FMC officials.

From the start, it has been FMC's intent to provide appropriate Industrial Benefits to Canada on this program independent of the manufacturing locations. FMC currently is completing its existing 36 million dollar IB commitment to the Government of Canada 4 years early and has been successful in developing business relationships with over 55 suppliers throughout all regions of Canada, with particular emphasis on the West and the East. As previously conveyed to you, FMC's long range plans focus on Canada as our eventual production base for future worldwide requirements for the M113 FOV when the US government requirements diminish to the point that production in our San Jose plant is no longer viable. We expect to produce M113s for many more years, but in smaller batch sizes which our San Jose facility is not designed to accommodate. Our actions to date in terms of developing manufacturing sources and establishing MOU's with companies in Canada are all part of this plan. Unfortunately, eliminating FMC from indigenous Canadian vehicle programs and potentially creating other competition in Canada works against such plans and the early on commitments we had intended to make in order to lay the substantive ground work and base necessary to making such goals viable.

.../2

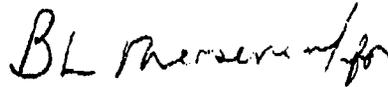
- 2 -

Based on the above and in order to provide Canada with industrial activity substantially greater than that required to offset the Canadian work lost as a result of production of the LRMP vehicles at minimum cost in FMC's San Jose facility, FMC is prepared to offer Industrial Benefits in Canada to a level of 150% of the contract value with a minimum of half of it being state-of-the-art military related. And we are willing to guarantee this offer with liquidated damages.

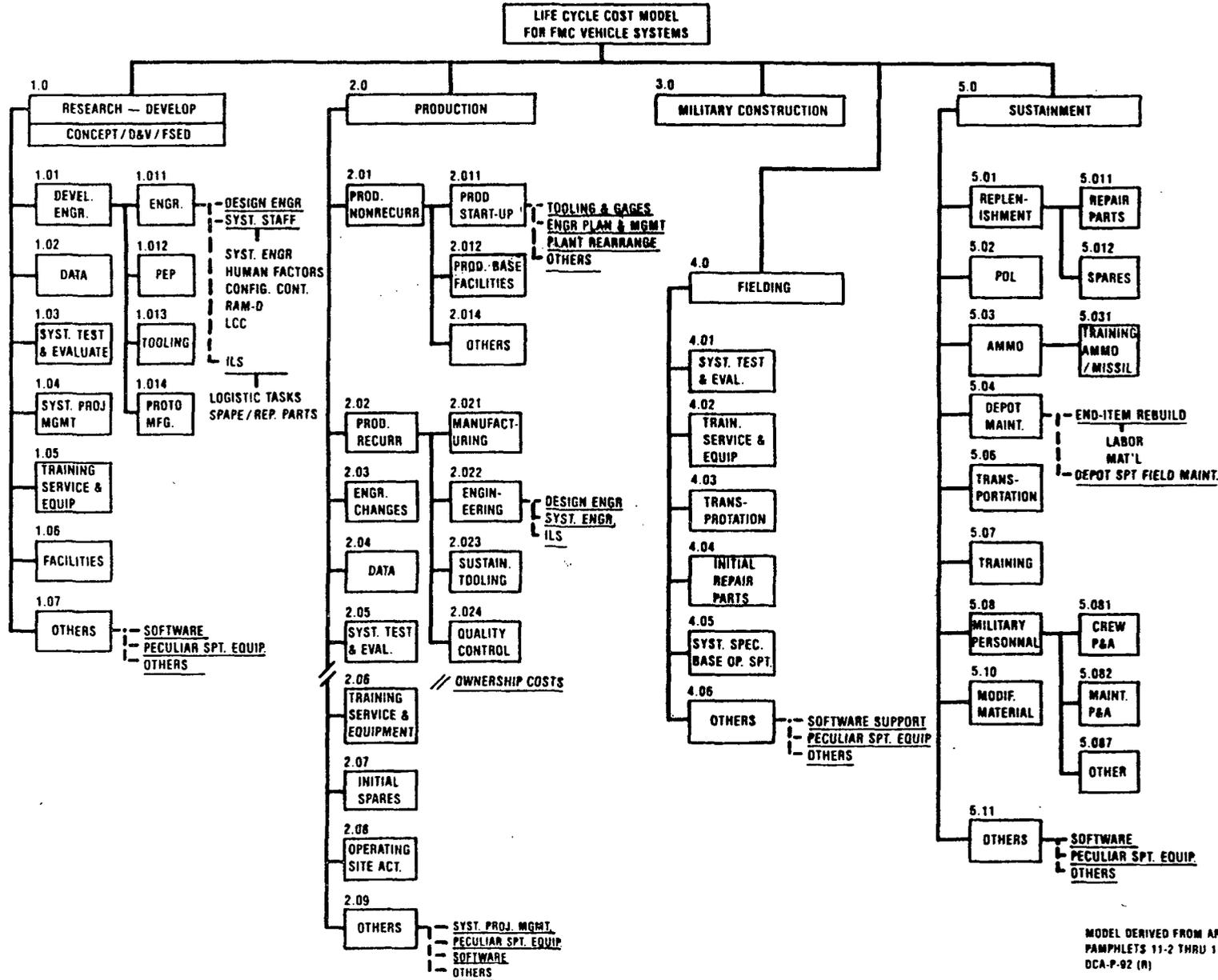
This significant improvement over our previous Industrial Benefits offer in 1988 is due in large part to the success FMC is experiencing with its teaming partners and sources in Canada and our desire to retain the momentum in our long range plans for developing an FMC vehicle production base in Canada and supplying Canada's military vehicle requirements.

If you have any questions in this regard, please feel free to contact me.

Regards,



David E. Doyle
Director
International Business



MODEL DERIVED FROM ARMY
 PAMPHLETS 11-2 THRU 11-5 &
 DCA-P-92 (R)

89-1758

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Gouvernement du Canada

Western Economic Diversification

Diversification de l'économie de l'Ouest

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Head Office
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This message consists of/Ce message consiste de:

3 Short Pages/Page Courtes / Long Pages/Page Longues
(Including Cover page, Incluant Page Couverture)

DATE/DATE: 89/06/28

TO/A: PMO-MILLAV
• MR. H. ZANKEL
• LT. COL. F.W. HYTTENRAUCH
• MR. TED. CHAPMAN

FROM/DE: COLIN MAY
WD OTTAWA

SUBJECT/COMMENTS, SUJET/COMMENTAIRES

OPERATOR/OPERATRICE: *Hayley*

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DRAFT TEXT

Dear Mr. _____

BODY OF TEXT

In June 1988, Supply and Services Canada formally requested price and availability information from FMC. At no point have FMC come forward with a definite and firm fixed price proposal instead only general information has been made available. Since that time FMC have made different and at times contradictory statements. At one stage you indicated that there would be a premium of 15 to 40 percent for Canadian participation and that you recommended production at your San Jose plant; you offered to locate a plant in the Atlantic region, then to team with GM in central Canada, then to locate a plant in Saskatchewan and now to undertake production in the West. You have attempted to link the proposed MILLAV buy with all future planned LAV procurements and implied that your various proposals were contingent upon preferential consideration in these distant future projects. These various manoeuvres have only served to cloud the issue which was to bring forward a clear proposal for the MILLAV project. The consultants that you retained here in Ottawa were told repeatedly that we would appreciate receiving a clear and unambiguous offer. There has been more than enough time to respond and yet no firm fixed price offer has been forthcoming.

I understand that you have met with DND officials to discuss your proposals and have been given more information about their requirements. In so far as the cost issue is concerned it my understanding based on information received from DND that the lifecycle costs of the FMC vehicle are greater than those of the DDGM vehicle and the department disputes the figures that you have put forward with your proposal.

I find your assertion that FMC is being eliminated from indigenous Canadian vehicle programs, that more competition is being created for you and that this will impact on plans that you have to do work in Canada, to be unfortunate and inaccurate. Clearly the MILLAV procurement is quite separate from any future LAV projects which if they occur will not happen for another five years.

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- 2 -

As far as competition is concerned, obviously it is in our best interests to recognize the requirements and competitive reality of the market place as this will determine the long term viability of any initiatives.

ARE THESE STATEMENTS ACCURATE?

IS THIS THE MESSAGE THE GOVERNMENT OF CANADA SHOULD BE SENDING?

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Fax: 995-1846

Government of Canada

Gouvernement du Canada

Head Office
Suite 1500, Canada Place
9700 Jasper Avenue
Edmonton, Canada
T5J 4H7
(403) 420-4164

Western Economic Diversification

Diversification de l'économie de l'Ouest

Ottawa Office
P.O. Box 2128 Station "D"
Ottawa, Canada
K1P 5W3
(613) 952-9378

Bureau d'Ottawa
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(Ottawa) Canada
K1P 5W3
(613) 952-9378

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T5J 4H7
(403) 420-4164

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DATE/DATE: 89/06/28

TO/A:

- [REDACTED]
- [REDACTED]
- [REDACTED]
- [REDACTED]

FROM/DE

COLIN MAY
WD OTTAWA

SUBJECT/COMMENTS, SUJET/COMMENTAIRES

Forwarded to you to assist
in coordinating a response
Phone: 954-1630

OPERATOR/OPERATRICE:

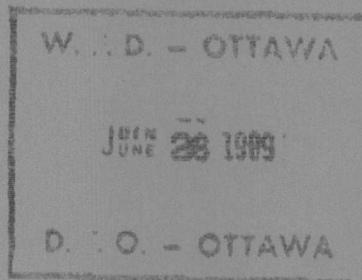
Hayley

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FMC Corporation

Defence Systems International Division
881 Martin Avenue Box 58123
Santa Clara California 95052
408 289 0111

JUN 26 1989

**FMC**

June 26, 1989

The Hon. Charles Mayer
Minister of Western Economic
Diversification of Canada
House of Commons
Room 175, East Block
Ottawa, Ontario
K1A 0A6

Dear Minister:

We are writing to you concerning FMC Canada's interest in DND's Land Reserve Modernization Project (LRMP) project, the proposed purchase of approximately 200 light armoured vehicles for the Canadian Militia. It is our understanding that the aforementioned will be the subject of Cabinet deliberations in the near future.

Notwithstanding the fact that we have submitted three unsolicited proposals (see attached) to the Minister of National Defence, our concern is that FMC, who is the leading supplier of light armoured vehicles to Canada and the free world, has not been given a full and open opportunity to compete on the above referenced project. As outlined below, we believe we have a far more complete package than offered by any other competitor, particularly the Diesel Division of General Motors.

1. We believe our total price, capital and life cycle is below that of the competition. FMC is willing to sign a firm fixed price contract in this regard with appropriate penalties for non-performance. Notwithstanding some apparent concerns by DND that elements of our price are low, FMC has built 70,000 of the vehicles in question in San Jose and around the world. We know what it costs to establish various types of operations in foreign countries and, as previously stated, are prepared to guarantee our figures.

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2. Notwithstanding the fact that some elements of the CAF appear to prefer a wheeled vehicle, we have been advised by the military that both the FMC and GM vehicle offerings satisfy DND's operational requirement. Thus, the decision of who will be awarded the contract should, in our view, be made on other factors, such as cost and industrial benefits.

3. We are prepared to establish a flexible manufacturing facility to initially perform assembly and test operations for LRMP vehicles in Western Canada, preferably Saskatchewan. Such a facility would not be erected for this requirement but rather would make use of an existing structure. Thus, the facility would not be dependent on follow on military work. However, such a facility would be capable of competing for future domestic LAV work, be it upgrades or eventually future new vehicles purchased by DND.

In addition and probably more importantly, FMC's long range plans focus on Canada as our eventual production base for future worldwide requirements for the M113 Family of Armoured Vehicles (FOV) when the US government requirements diminish to the point that production in our San Jose plant is no longer viable. We expect to produce M113s for many more years, but in smaller batch sizes which our San Jose facility is not designed to accommodate. Our actions to date in terms of developing manufacturing sources and establishing MOU's with companies in Canada are all part of this plan. Unfortunately, eliminating FMC from indigenous Canadian vehicle programs and potentially creating other competition in Canada works against such plans and the early on commitments we had intended to make in order to lay the substantive ground work and base necessary to making such goals viable.

4. In addition to FMC Canada undertaking the assembly and test of the vehicles in Saskatchewan, FMC has established a supply base of some 55 companies from coast to coast in Canada. Also, FMC has signed MOU's with the following firms:

.../3

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EBCO Industries	-	British Columbia
Volk Precision Industries	-	Alberta
Computing Devices	-	Ontario
Oerlikon Aerospace	-	Quebec
Industrial Rubber	-	New Brunswick
Atlantic Defence Ind.	-	Nova Scotia

5. Over and above the direct Canadian content provided by our Canadian suppliers and the Assembly and Test Facility, FMC is prepared to commit to indirect Industrial Benefits that would bring the total Canadian content (direct and indirect) to 150% of the contract value. We are prepared to back up this offer by liquidated damages.

FMC's track record in Canada with regard to Industrial Benefits is superb. We are currently just completing our \$36M obligation to Canada 4 years early. During the past year, we undertook procurement in Canada valued at approximately \$7M on the basis that there is going to be, in the future, a business base in Canada for FMC. We are about to conclude negotiations with one of our Team members that result in our Canadian procurement move from the previously mentioned \$7M to \$11M annually.

6. FMC has the ability to provide a flexible delivery schedule such that we can meet DND's cash flow requirements over a four year period but still start delivering vehicles in 1990.

Notwithstanding the attributes of the foregoing, DND have only agreed to formally meet with FMC once, last Friday on LRMP. While from our perspective we are obviously prepared to enter into negotiations, we do not fully understand why the Government does not either 1) expend at least a reasonable degree of effort with FMC to more fully review the merits of our proposal. Such a courtesy has obviously been extended to GM; or 2) conduct an open competition between FMC and GM. As the Government knows either vehicle is acceptable, a quick competition could be undertaken primarily on

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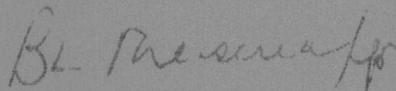
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the basis of price and industrial benefits. Surely this would be beneficial to all as the Government would not be subject to accusations that it was directing the work to one party or the other; the market place would obviously determine the winner.

We would be pleased to meet with you to discuss our proposal or to provide any further information you may desire.

Yours sincerely,



David E. Doyle
Director
International Business

Enclosures

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Charles Fink
Vice President

FMC Corporation
881 Martin Avenue
Box 58123
Santa Clara California 95052

June 9, 1989

The Honorable William McKnight, P.C. M.P.
Minister of National Defence
Major General George Pearkes Bldg.
Ottawa, Ontario, Canada K1A 0R2

Dear Minister McKnight:

The purpose of this letter is to advise you that FMC Corporation, the current supplier of M113 light armored vehicles to the Canadian Armed Forces, is still very much interested in the several light armored vehicle programs now under consideration by your department. We submitted a formal proposal dated 14 September 1988 to your predecessor, the Honorable Perrin Beatty, outlining in some detail the proposed FMC approach to each of the related programs. In brief, the proposal described FMC's willingness to undertake future development work as well as final test and assembly in Canada. In addition, we would build a strong team of Canadian suppliers from coast to coast. This team is now in place and FMC has placed other work with some of the suppliers to ensure that they will be fully qualified to undertake the Canadian requirement.

A subsequent proposal with particular emphasis on the purchase of armored personnel carriers for the Land Reserves Modernization Project (LRMP) was made on 19 January 1989. The thrust of this proposal was that FMC believed it could have its vehicles constructed in General Motors Diesel Division facility in London, Ontario at a price far below that which GM could offer for its vehicle. Unfortunately, GM has refused to even discuss such a venture with us obviously preferring to sell DND their more expensive vehicle.

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Honorable William McKnight
Page 2

In this regard, it is our understanding that DND, in its review of requirements after the new budget, is giving priority consideration to the procurement of armored vehicles for the LRMP project. As well, we have reason to believe that the plan is to purchase 8x8 wheeled vehicles from GM to meet the LRMP requirement. As we understand it, GM has also offered to assist DND in the financing of this project.

In view of the foregoing and the fact that GM has not been prepared to consider any cooperative venture which might result in the Government realizing some economies, we have continued to search for other ways to produce the LRMP vehicles in Canada at an attractive price for the Government. Our research has shown that we can establish an assembly facility in Western Canada to produce the approximately 200 M113 vehicles and still save the Government \$30M Canadian over the GM proposed price for the 8x8 wheeled vehicle. We are in the process of providing DND officials, under separate cover, with additional cost data to support this position, particularly as it relates to the life cycle costs of our equipment.

Our production proposal for LRMP would, in addition to a final assembly facility in Western Canada, include sourcing a substantial portion of the production effort to our Canadian Industrial Partners located across Canada. Our partners include, amongst others, Volk Precision Industries of Calgary and EBCO Industries of Vancouver.

As the designer and builder of the existing M113, FMC and its Canadian team are clearly the most appropriate choice to provide DND with a fully integrated cost effective (capital and life cycle) solution to the department's overall LAV requirements. We believe this can be carried out in such a fashion that a significant portion of the work would be done in Western Canada. It is also our intention to produce the larger Canadian Armed Forces LAV requirement at the same production facility as well as the upgrading of the existing M113's.

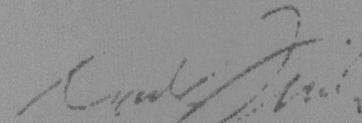
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Honorable William McKnight
Page 3

FMC recognizes that your department is probably not in a position to deal with all three LAV projects (LRMP, New Vehicles and Upgrade) as an integrated package. We are willing to be flexible with regards to how and when DND might wish to proceed with each of the specific projects. Our willingness, however, to proceed with our Canadian initiatives in the near term will be affected by any decision your department may make with respect to awarding the LRMP project.

We would welcome an opportunity, Mr. Minister, to further amplify our proposal. We will be contacting your office to arrange such a meeting at your earliest convenience.

Sincerely,



Charles Fink

Charles Fink
Vice President

BEST AVAILABLE COPY

FMC Corporation
881 Marin Avenue
Box 58123
Santa Clara California 95052

January 19, 1989

The Honorable Perrin Beatty, P.C., M.P.
Minister of National Defence
101 Colonel by Drive
Ottawa, Ontario
Canada K1A 0K2

Dear Minister Beatty:

It is our understanding that your department is currently giving priority consideration to the purchase of armored personnel carriers for the Land Reserve Modernization Project (LRMP). We understand the government is also considering the purchase of 8x8 wheeled vehicles from GM of Canada, London, Ontario. The purpose of this letter is to propose an alternate procurement plan that will enable the DND to fill the LRMP requirement with the currently fielded M113, produced in Canada, at a savings to the Government of approximately \$30M to \$40M Canadian.

FMC's 29 July 1988 submittal of price and availability information for the LRMP Project quoted a price of approximately \$72M Canadian for the entire requirement of 213 M113 vehicles produced in our San Jose, California facility. Based upon information publicly available from U.S. sources concerning U.S. Government procurement of the GM of Canada 8x8 wheeled product, we estimate the GM price for 213 vehicles to be approximately \$122M. This is a premium of \$50M.

We recognize that the Government of Canada desires to maintain a defense production capability and to procure products from Canadian sources when possible. However, we feel that FMC can fully satisfy the LRMP requirement from both a product and production perspective at a premium that is far less than that being contemplated by the GM solution.

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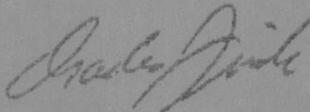
Honorable Perrin Beatty, P.C., M.P.
Page 2

As we have stated in previous letters to you, FMC is firmly committed to supplying the Canadian Forces' armored vehicle requirements from a Canadian production base. As further evidence of this commitment, FMC is prepared to produce the 213 M113 vehicles for the LRMP project in the facilities of GM of Canada, Ltd., under a teaming agreement with GM. We estimate this could be done at a cost of only \$10M to \$20M over the U.S. production price, resulting in the previously mentioned savings to the Government of \$30M to \$40M over the GM wheeled product price.

Although we believe the benefits of the above proposal to the Government are substantial, we have been unable to gain the support of GM of Canada. Discussions are continuing in this regard. We believe it is in the best interest of all parties to implement a joint proposal and ask for your personal support of this initiative.

I would welcome the opportunity to review FMC's proposal with you. We will be contacting your office to arrange such a meeting at your earliest convenience.

Yours truly,



Charles Fink

sp

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06/22/89

12:20

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27 1883

FMC DSI

002/003

Robert N. Burt
Vice President

FMC Corporation
551 Martin Avenue
Box 58129
Santa Clara California 95052

September 14, 1988

The Honorable Parrin Beatty, P.C., M.P.
Minister of National Defence
101 Colonel by Drive
Ottawa, Ontario
Canada K1A 0K2

Dear Minister Beatty:

Attached is the FMC formal proposal for several related Canadian Forces light armored vehicle programs which was outlined in my letter of August 5, 1988. FMC proposes to provide the total 1739 new vehicles for the Light Armored Vehicle (LAV) Program and the planned armament and armor upgrades for the existing fleet of M113 vehicles within what we understand are the planned funding levels for the LAV Program. Because of the high commonality with the existing fleet of M113 vehicles the fielding and logistics support costs would also result in significant program savings. Additionally, the vehicles will be developed, produced, and supported in Canada by Canadian companies led by FMC of Canada, Ltd., Oerlikon Aerospace, Atlantic Defense Industries, Ltd., and many others.

FMC recommends the purchase of the Land Reserve Modernization Program (LRMP) from our San Jose production facility in order to fill the total 213 vehicle requirement within the LRMP budgeted funds. The proposal does offer the option to produce the LRMP vehicles in Canada. There are also several proposed product options which could reduce the cost of the LAV Program. FMC is prepared to discuss the proposal and any changes the government may wish to make to it.

Additionally, FMC remains flexible in the location of a Canadian production facility which could also serve our worldwide markets. Although we have explored possible sites, we would welcome the Government's input before we and our Canadian partners make our final choice.

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08/22/89

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FMC DSI

003/003

Minister Beatty
Page 2

We believe it is in the best interests of the Canadian government and the Department of National Defence to accept FMC's proposal. Prompt acceptance will result in a procurement program tailored to the needs of the Canadian Forces, a larger number of vehicles procured, lower logistics support costs, a Canadian vehicle design capability, significant involvement of Canadian industry and a production capability to serve worldwide markets.

We at FMC look forward to working with you and your fellow Canadians in future years.

Sincerely,

Robert N. Burt
Robert N. Burt

Attachment

SYNOPSIS CORRESPONDENCE

DND / FMC CORP

PERIOD

JUNE 1988 TO JUNE 1989

SERIAL	DATE	CORRESPONDENCE			REMARKS
		FROM	TO	SUBJECT	
1	22 JUN 89	DSS	FMC CORP	P&A REQUEST	
2	29 JUL 89	FMC CORP	DSS	P&A RESPONSE "MANUFACTURE IN SAN JOSE CALIFORNIA" NOT ECONOMICAL IN CANADA (15% TO 40%) INCREASE	<ul style="list-style-type: none"> - UNIT PRICE \$250K (US)/VEH - NO CDN CONTENT - ILS NOT INCLUDED - DELIVERY OVER 4 YRS - VAGUE DOCUMENT
3	5 AUG 89	FMC CORP	MND	PROPOSED SOURCING STRATEGY FOR MAIN LAV, LRMP, M113 (R&O, UPGRADE LOG SP)	CONCEPT PAPER LINKING ALL FUTURE PROJECTS.
4	14 SEP 89	FMC CORP	MND	FORMAL PROPOSAL FOR SEVERAL RELATED CF LAV PROGRAMS.	LINKAGE OF LAV PROJECTS ESSENTIAL TO PRODUCE VIABLE CONSISTENT WORKFLOW
5	? JAN 89	MND	FMC CORP	RESPONSE TO 5 AUG 89 & 14 SEP 89 LETTERS	<ul style="list-style-type: none"> - NO PROJECT HAS RECEIVED APPROVAL IN PRINCIPLE - EACH PROJECT IS SEPARATE ALTHOUGH RELATED - IMPLEMENTATION MID 1990S
6	19 JAN 89	FMC CORP	MND	PROPOSAL TO PRODUCE M113S AT GM LONDON	<ul style="list-style-type: none"> - AIDE MEMOIRE COVERS ASPECTS - GM WANTS NO PART OF PLAN

SERIAL	DATE	CORRESPONDENCE			REMARKS
		FROM	TO	SUBJECT	
7	13 FEB 89	FMC CORP	CS	ADDITIONAL COSTS TO PRODUCE M113S IN GM LONDON	AIDE MEMOIRE COVERS ASPECTS. NO CHANGE FROM PREVIOUS AIDE MEMOIRE
8	9 JUN 89	FMC CORP	MND	LETTER INDICATING CONTINUED INTEREST IN LAV PROJECTS.	AIDE MEMOIRE COVERS POINTS RAISED.
9	9 JUN 89	FMC CORP	DG PROC S	LIFE CYCLE COST DATA ON M113S	AIDE MEMOIRE COVERS POINTS RAISED.
10	13 JUN 89	FMC CORP	CS	LETTER EXPRESSING FRUSTRATION	AIDE MEMOIRE COVERS POINTS RAISED.
11	12 JUN 89	ADM (MAT)	MINISTERS	AIDE MEMOIRE SUMMARIZING MINISTERIAL/ DEPARTMENTAL POSITIONS AND COMPARISON GM/FMC/THYSSEN	

FMC

32460-100-008

MEMORANDUM

3136-5-2460 (DPSL 2)

23 Jun 89

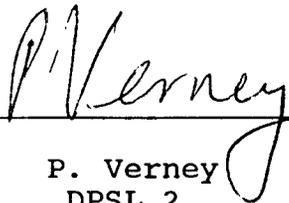
Distribution List

MEETING WITH FMC CORPORATION
REPRESENTATIVES

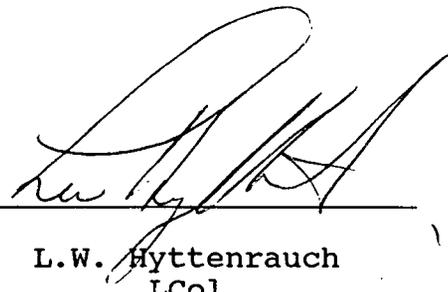
1. On Friday, 23 Jun 89, PM MILLAV, PD LRMP and I met with the following representatives of FMC Corporation:

- a. Allen J. LaPorte, Project Manager;
- b. Donald W. Baker, Manager, International Pricing;
- c. Richard G. Mitchell, Supervisor, Life Cycle Cost;
- d. Bruce A. Westcoat, Manager, Direct Offset; and
- e. Brian L. Merserau, Vice-President, Public Affairs International.

2. Enclosed is an aide-mémoire summarizing the discussion at the meeting. A detailed record is being prepared and will be held on file.



P. Verney
DPSL 2
994-9435



L.W. Hyttenrauch
LCol
PM MILLAV

Enclosure: 1

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DPSL
PD MILLAV

AIDE-MÉMOIRE
FOR CS

SUBJECT: Meeting with FMC Corporation Representatives

General

- Meeting held, 0900 hrs, 23 Jul 89, at FMC's request.
- The four areas of discussion were: industrial base, cost, operational requirement, and industrial and regional benefits.

Industrial Base

- PM MILLAV indicated that industrial base considerations were key.
- He indicated lack of linkages to possible future armoured vehicle projects and lack of DND work to sustain any new Canadian facility.
- He stated that the current requirement for a light armoured vehicle industrial base was essentially provided by 202 Workshop Depot and GM.
- He pointed out that Canada has spent several millions of dollars in establishing the base.
- FMC has limited future orders for M113s in the world market, particularly since several countries now have licenses to manufacture the vehicles.
- FMC representatives confirmed that current production rate is 3 vehicles per day.
- FMC also confirmed that it has not reached a working arrangement with GM for the MILLAV order, and has not made any formal agreements with any other companies. FMC has basically been on a fishing expedition with several companies (see list attached).

Cost

- FMC provided two tables of financial data that confirmed previously submitted data.
- The project team's previous analyses remain valid.
- There was consensus that DND's and FMC's O&M cost data on M113s differed because of different accounting methods.

- Arrangements will be made with DND's M113 LCMM to discuss O&M data with FMC.
- FMC figures on infrastructure for Canadian production are suspect as they have not been agreed to by any Canadian company.

Operational Requirement

- The PD explained the greater priority now placed on territorial defence.
- The PD indicated that both tracked and wheeled vehicles would meet operational requirement.
- However, for territorial defence, the Army's view is that wheels are preferable except for field engineering and anti-armour applications (for which up to 22 M113s would be required).

Industrial and Regional Benefits

- FMC still has no firm proposal for a teaming arrangement with a Canadian company or for industrial and regional benefits.
- FMC presented vague proposals, basically consistent with our expectations, and indicated it was looking for government direction on who to team with and specific industrial and regional benefits.
- FMC was advised that it is not a normal function of the government to provide direction on teaming arrangements.

Additional Points

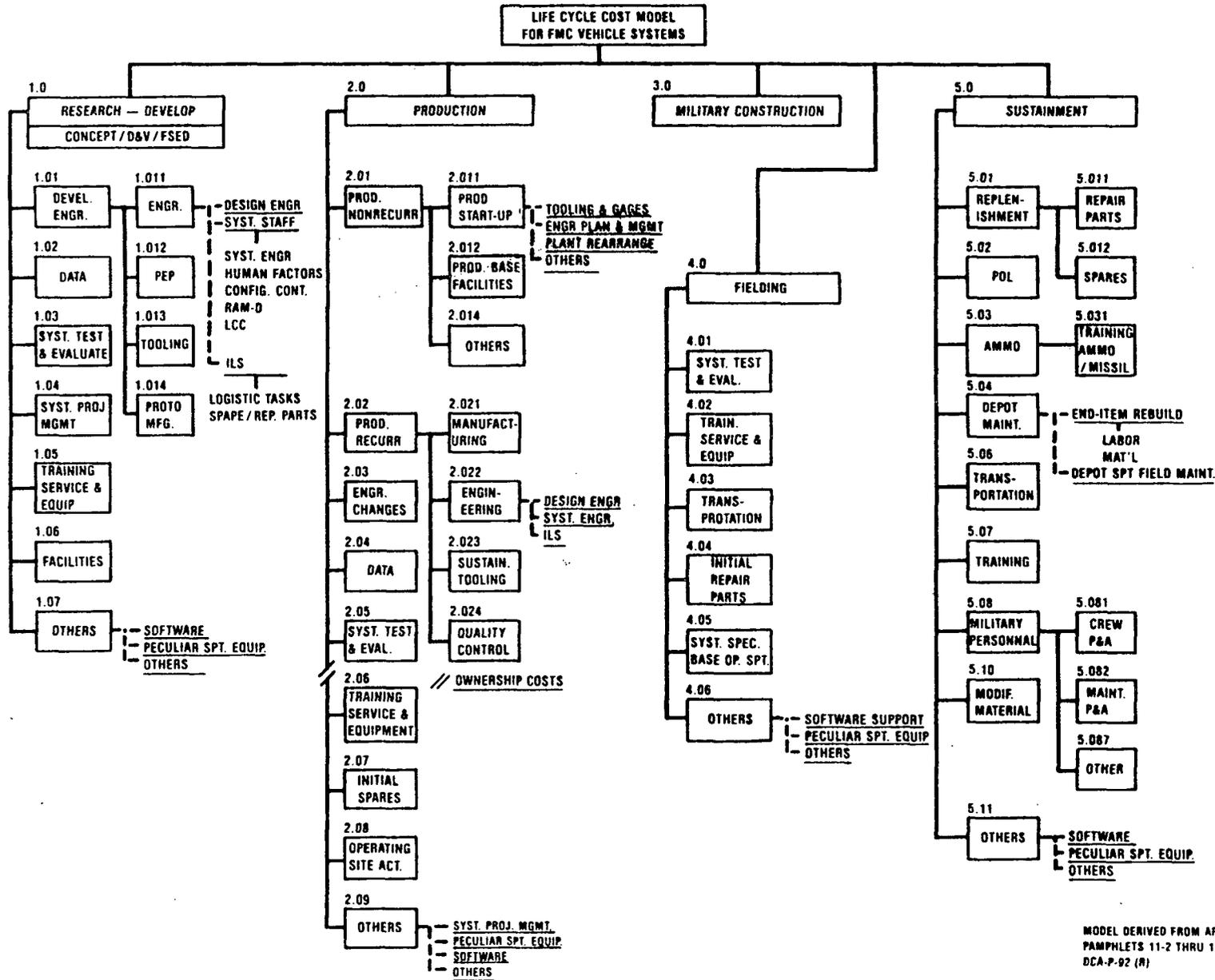
- FMC indicated that production over two years (vice four as indicated in our P&A inquiry), could result in savings.
- In order not to jeopardize negotiations to date with GM (i.e. its two-year production window of opportunity), the PM advised that:
 - the cash phasing for the project was over four years commencing in 1990,
 - the most cost-effective means of production is left to suppliers.
- FMC may come back on this issue.

Conclusion

- FMC provided no substantially new information.
- There are no outstanding issues that would prevent proceeding with the MILLAV project as planned.

CANADIAN INDUSTRIAL TEAM

<u>COMPANY NAME</u>	<u>CITY</u>	<u>PROVINCE</u>	<u>COMMODITY</u>
INVENTRONICS LTD.	EDMONTON	ALBERTA	FABRICATIONS
VOLK PRECISION IND. LTD.	CALGARY	ALBERTA	MACHINING
EBCO INDUSTRIES LTD.	VANCOUVER	B.C.	FABRICATION
PULLMASTER WINCH CORP.	SURREY	B.C.	CABLES
ATLANTIC DEFENSE INDUSTRIES LTD.	BRIDGETOWN	NOVA SCOTIA	FABRICATION
INDUSTRIAL RUBBER	BATHURST	NEW BRUNSWICK	TRACK
ACTIVE GEAR OF CANADA LTD.	CONCORD	ONTARIO	MACHINING
CANADA FORGINGS INC.	WELLAND	ONTARIO	FORGINGS
COMPUTING DEVICES CO.	OTTAWA	ONTARIO	ELECTRONICS
ESPAR PRODUCTS INC.	MISSISSAUGA	ONTARIO	HEATERS
GABRIEL OF CANADA LTD.	TORONTO	ONTARIO	SHOCK ABSORBERS
GENERAL KINETICS ENGINEERING CO.	BRAMALEA	ONTARIO	SHOCK ABSORBERS
INVAR MANUFACTURING LTD.	BATAWA	ONTARIO	FABRICATIONS
ALCAN CANADA PRODUCTS LTD.	SHAWINIGAN	QUEBEC	ALUMINUM PLATE
GODFREY HOWDEN INC.	LACHINE	QUEBEC	FABRICATION
SHELLCAST FOUNDRIES INC.	MONTREAL	QUEBEC	CASTINGS
VESTSHELL INC.	MONTREAL	QUEBEC	CASTINGS



MODEL DERIVED FROM ARMY
 PAMPHLETS 11-2 THRU 11-5 &
 DCA-P-92 (R)

Question 1

When was the \$40M capital differential and \$10M LCC differential first stated and what rationale was used in establishing these figures?

Answer 1

Chronology

- 10 Feb 89 Draft DWP first mentions \$40M capital and \$10M LCC differentials
- 14 Feb 89 Draft DWP with \$40M capital and \$10M LCC differentials first sent out for review
- 13 Mar 89 Draft DWP (dated 08 Mar 89) with \$40M capital and \$10M LCC differentials sent out for comments
- 28 Feb 89 Draft DWP (dated 28 Mar 89) with \$40M capital and \$10M LCC differentials sent to D Cabinet Ln
- 30 May 89 Draft DWP (dated 30 May 89) with \$40M capital and \$10M LCC differentials sent to D Cabinet Ln
- 15 Jun 89 Draft DWP (dated 12 Jun 89) with \$40M capital and \$10M LCC differentials sent out for comments

Rationale

Basis for Feb 89 capital cost differential:

Unit cost of GM vehicles (per unsolicited proposal)	\$418K(incl. marine drive, winch & fire suppression)	
Number of Vehicles	<u>x 221</u>	
- Total Vehicle Cost	\$92.4M	} \$25M differential
Unit cost of FMC vehicles (per P&A response)	\$310K	
Number of vehicles	<u>x 221</u>	
- Total Vehicle Cost	\$ 68M	
- Overall \$40M differential - \$25M differential =	<u>\$15M</u>	
- \$15M differential due to ILS elements, FST and contingency		

Question 2

Is this information still valid?

Answer 2

The numbers are still valid. The attached computer program output outlines cost elements.

COST COMPARISON

 FILE: ILSCOMP.WK1

21-Jun-89
 15:18

ITEM	QTY	OPTION 1A FMC/US	OPTION 1B FMC/CDA	OPTION 2 WHEELS	OPTION 3 PREF OPTION
ISC UNIT COST		\$361,000	\$469,300	\$396,000	\$396,000
VEHICLE COSTS	165	\$59,565,000	\$77,434,500	\$65,340,000	\$65,340,000
TUA UNIT COST		\$378,810	\$492,453	\$400,000	\$378,810
TUA COSTS	8	\$3,030,480	\$3,939,624	\$3,200,000	\$3,030,480
DOZER UNIT COST		\$463,266	\$602,246	\$400,000	\$463,266
DOZER COSTS	14	\$6,485,724	\$8,431,441	\$5,600,000	\$6,485,724
MRT UNIT COST		\$503,010	\$653,913	\$460,000	\$460,000
MRT COSTS	16	\$8,048,160	\$10,462,608	\$7,360,000	\$7,360,000
CP UNIT COST		\$355,212	\$461,776	\$420,000	\$420,000
	18	\$6,393,816	\$8,311,961	\$7,560,000	\$7,560,000
LSA/LSAR		\$0	\$0	278,897	278,897
FIELD SERVICE		\$0	\$0	521,746	521,746
RAM-D		\$0	\$0	1,027,266	1,027,266
CHECK LIST		\$1,670,464	\$2,171,603	\$1,781,200	\$1,795,524
WPNS & MTS		\$4,926,100	\$4,926,100	4,926,100	4,926,100
IKEE		\$1,715,402	\$1,715,402	0	170,764
R & D RECOUPMENT		\$221,000	\$221,000	\$2,776,382	\$2,500,000
MOWAG ROYALTY		\$0	\$0	\$4,189,444	\$4,189,444
DESIGN ENGINEERING		\$0	\$0	\$18,000,000	\$13,164,367
CDRLS		\$0	\$0	\$1,352,471	\$1,352,471
TOTAL MAIN EQPT	221	\$92,056,146	\$117,614,239	\$123,913,506	\$119,702,783

COST COMPARISON

 FILE: ILSCOMP.WK1

21-Jun-89
 15:18

ITEM	QTY	OPTION 1A FMC/US	OPTION 1B FMC/CDA	OPTION 2 WHEELS	OPTION 3 PREF OPTION
TOTAL MAIN EQPT		\$92,056,146	\$117,614,239	\$123,913,506	\$119,702,783
TRAINING		\$261,000	\$261,000	4,400,000	4,400,000
PUBLICATIONS		\$400,000	\$400,000	2,300,000	2,300,000
PACKAGING		\$1,879,272	\$2,443,053	1,900,000	1,900,000
SPARES		\$12,528,477	\$16,287,020	13,800,000	13,800,000
TOOLS & TEST EQPT		\$800,000	\$800,000	800,000	800,000
AMMO		\$3,800,000	\$3,800,000	3,800,000	3,800,000
TRANSPORTATION		\$3,200,000	\$800,000	800,000	800,000
=====					
TOTALS		\$114,924,894	\$142,405,312	\$151,713,506	\$147,502,783
PMO COST		\$3,500,000	\$3,500,000	\$6,500,000	\$6,500,000
DSS REV DEP		\$1,900,000	\$1,900,000	\$1,900,000	\$1,900,000
SALES TAX		\$11,275,629	\$14,658,318	\$12,023,100	\$18,900,000
CONTINGENCY		\$13,160,052	\$16,246,363	\$17,213,661	\$13,200,000
=====					
CAPITAL TOTALS		\$144,760,576	\$178,709,993	\$189,350,267	\$188,002,783
O & M COSTS		\$64,000,000	\$64,000,000	\$45,000,000	\$45,000,000
=====					
LIFE CYCLE COSTS		\$208,760,576	\$242,709,993	\$234,350,267	\$233,002,783

89-18-009
FMC

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PMO	SECTION
18 009	
P.S. TO FILE NO: 3246-0-100-008	
OR	
DICCARD	

MEMORANDUM

3136-5-2460 (DPSL 2)

15 Jun 89

Distribution List

REPRESENTATIONS BY FMC CORP

- Refs:
- A. FMC letter to MND, 9 Jun 89
 - B. FMC letter to CS, 13 Jun 89
 - C. FMC letter to DG Procs, 9 Jun 89

1. In a minute to Refs A, B & C, you directed preparation of a detailed analysis of all the points raised by FMC.
2. Enclosed is a paper identifying the issues and providing an analysis of them.

S.A. McCormack
 S.A. McCormack
 Col
 DPSL
 994-9416

Enclosure: 1

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ANALYSIS OF POINTS
IN FMC CORRESPONDENCE

1. Issue. FMC is frustrated at not having been given the opportunity to formally meet with government officials to discuss the merits of its proposal.
2. Response
 - In Jun 88, DSS formally requested price and availability information from FMC. As part of the request, the company was asked to provide extensive, detailed information on Canadian industrial and regional benefits. Instead of providing the information, the company chose instead to:
 - state in general terms that Canadian participation was possible;
 - indicate a premium of 15 to 40 percent for Canadian participation; and
 - recommend production for such a relatively small quantity (213 vehicles at that time) at its U.S. facility.
 - Since FMC responded, DND (with Interdepartmental Senior Review Board approval) has adopted the procurement strategy of purchasing wheeled vehicles for the majority of the requirement. This strategy is the best in terms of all factors: operational requirements, defence industrial base considerations, industrial and regional benefits, and life cycle costs.
 - While DND proposes to buy 22 tracked vehicles from FMC, efforts have been dedicated to the major portion of the project.
 - FMC has been free at any time to submit as much detail on its proposals as it wishes. Instead, however, the company has only submitted very general information.
3. Issue. FMC can offer a competitive product at a lower price than the competition.
4. Response. It is probably true that FMC vehicles would be cheaper than wheeled vehicles in terms of capital cost. However,
 - the life cycle costs of tracked vehicles would be higher than wheeled vehicles produced in Canada. A fact sheet with life cycle cost data is attached;
 - industrial and regional benefits are unknown. FMC still does not indicate in any of its correspondence what the industrial and regional benefits would be. It simply states that there would be final assembly in Western Canada and "sourcing a substantial portion of the production effort to our Canadian Industrial Partners located across Canada";
 - production at a facility other than General Motors' could well mean closure of that facility and relocation of production for future orders at a U.S. plant. GM has indicated production of FMC's tracked vehicles in London would be impractical;

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- the viability of FMC's Canadian partners would depend on export sales. This is because DND's requirements are insufficient to sustain Canadian industry. Further buys of light armoured vehicles over the next 15 years are questionable, and, in any event, would not occur for at least five or six years. Significantly, FMC does not indicate whether its Canadian partners would be involved in production for export sales of M113s.
5. Issues. FMC states that, based on U.S. Army data, the cost of operating M113 vehicles is "\$4,943 per vehicle per year". Extending the cost over 20 years and 150 vehicles would mean operating and support costs of less than \$14,830,000.
 6. Response. The FMC data does not take into account the following factors:
 - oil and lubricants (only fuel);
 - repair and overhaul costs;
 - DND's higher usage rate (at least 2,000 km vice 1,500 km (i.e. 902 miles));
 - currency exchange at a rate of \$1.20 Cdn = \$1.00 U.S.;
 - the fact that the number of vehicles is 221 vice 150.
 7. Taking these factors into account, the FMC information appears to confirm the DND figures for operating and maintenance costs of M113s. As a result, the life cycle costs over 20 years for a fleet of wheeled vehicles would be about \$10 million (\$89/90) less than tracked vehicles. Note that DND figures are based on our own actual experience.
 8. Issue. The reliability and product improvements incorporated into the M113 A2 would mean lower maintenance costs than for a mixed fleet of M113 A1s and M113 A2s, on which the U.S. Army data were based.
 9. Response. There may be some savings associated with the A2 version. However, there are insufficient data available.
 10. Issue. If you compare the operating and maintenance costs of M113s and wheeled vehicles, "one must add a factor for the loss of cross-country operating capability inherent in wheeled vehicles".
 11. Response. This contention is not relevant, since GM's wheeled vehicles have all the mobility required for their role.
 12. Issue. In Sep 88, FMC submitted a formal proposal on how the company would meet the requirements of LRMP, the future Light Armoured Vehicle Project, and the future M113 upgrade.
 13. Response. FMC's statement is correct. However, the proposal entailed FMC obtaining the business for all three requirements.
 14. Also, in Sep 88, DND had received an unsolicited proposal from General Motors for the LRMP requirement, and it was re-evaluating its previous approach of acquiring M113s.
 15. Now, with the budget announcement, it is questionable whether there will be any further acquisitions of light armoured vehicles over the next 15 years. In any event,

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- there would be no further buys for at least five or six years.
16. Issue. In Jan 89, FMC made a proposal to have M113s constructed in General Motors Diesel Division facility in London, Ontario. However, GM has shown no interest.
 17. Response. FMC's statement is correct. GM stated in a letter to the government that production of M113s in London is impractical for the following reasons:
 - the aluminum preparation and welding associated with M113s is a substantially different process from the steel preparation and welding associated with GM's wheeled vehicles;
 - GM would therefore have to build an extension to its existing facility to accommodate M113 production. Otherwise, production for anticipated future export sales of wheeled vehicles commencing in 1991 would probably be displaced;
 - cost of the expansion and set-up would be in the order of \$30 million (\$89/90).
 18. Issue. FMC recognizes that DND is probably not in a position to deal with all three LAV projects (LRMP, New Vehicles and Upgrade) as an integrated package. It indicates willingness to be flexible with regards to how and when DND might wish to proceed with each of the specific projects.
 19. Response. The "integrated package" approach is definitely not feasible. It is questionable whether there will be any further upgrades or acquisitions over the next 15 years. In any event, there will be no upgrades or acquisitions for at least five or six years.
 20. Issue. The government has met on numerous occasions with GM and apparently has, in essence, negotiated a pro forma contract.
 21. Response. FMC's belief is substantially correct. In view of the delays in obtaining Ministerial consideration (due to the election and the budget) and of GM's critical production and employment situation, DSS has negotiated draft terms and conditions. These are subject to Ministerial approval.
 22. Issue. GM has offered to assist DND in the financing of this project.
 23. Response. This statement is incorrect. GM has simply agreed to:
 - a. extend the validity of its prices to 31 Jul 89; and
 - b. no payments until vehicles are actually delivered commencing in 1990/91. The company agreed to this arrangement with no increase in price.

MILLAV COST INFORMATION

Unit Price Information

	<u>(\$89/90)</u>	<u>Remarks</u>
General Motors	\$450K	
FMC	\$300K	
Thysseen	Not known	However, cost would be at least \$450K + 136K (ie a minimum \$30M set-up spread over 220 vehicles)

Life Cycle Cost Comparison
 of GM and FMC Vehicles

	<u>(\$89/90)</u>	
	<u>GM</u>	<u>FMC</u>
Capital Cost	112M	102M
Operations and Maintenance Cost	45M	64M
Totals	157M	166M

- Notes:
1. Costs based on 220 vehicles.
 2. Capital costs include sales tax. Detailed calculations attached (Flag A).
 3. Operations and maintenance costs are based on actual DND data. Detailed calculations attached (Flag A).
 4. FMC has now submitted U.S. Army information on operations and maintenance costs (copy attached) (Flag B). The FMC calculations have to be adjusted for: overhaul costs, oils and lubricant costs, our higher mileage, our quantity of vehicles (220 vice 150), currency exchange, and labour rates. Taking these factors into account, the FMC information appears to confirm the DND figure for operating and maintenance costs.

PROTECTED B

FILE NAME: LAVJUN-2.WK1

LCC COST COMPARISON
 GM, FMC, AND THYSSEN
 13 JUN 89

FACTOR	E.M. \$ X \$	FMC M110	THYSSEN \$ X \$	REMARKS
CAPITAL COST (FY 89/90)				
COST U.S.		\$250,000		BASIC VEHICLE
CURRENCY EXCHANGE		1.1999		
CON FY89/90	\$450,000	\$299,973	UNKNOWN	COST FOR THYSSEN EXPECTED TO BE HIGHER THAN FMC CORPORATION.
SETUP COST		125,000		SETUP COST FOR THYSSEN EQUIVALENT OR HIGHER THAN FMC CORP.
CANADIAN		40,497		
PST - 13.5%	60,750			
COST PER VEHICLE	510,750	465,472	UNKNOWN	
COST 220 VEHICLES	\$112,365,000	\$102,403,840		
OPERATIONS & MAINTENANCE				
COST PER KM	5.09	7.33	UNKNOWN	THYSSEN VEHICLE EXPECTED TO HAVE HIGHER OPERATING AND MAINTENANCE COSTS. IT WOULD BE A UNIQUE VEHICLE TO THE CANADIAN FORCES AND WOULD CREATE INCREASED MAINTENANCE AND LOGISTIC SUPPORT COSTS.
ANNUAL UTILIZATION	2,000	2,000		
ANNUAL COST PER VEH	10,180	14,653		
20 YR COST, 220 VEHS	\$44,792,000	\$64,474,667		
TOTAL CAPITAL, O&M				
20 YRS, 220 VEHS	\$157,157,000	\$166,878,507		

PROTECTED B

Charles Fink
Vice President

FMC Corporation
881 Martin Avenue
Box 58123
Santa Clara California 95052

June 9, 1989

The Honorable William McKnight, P.C. M.P.
Minister of National Defence
Major General George Pearkes Bldg.
Ottawa, Ontario, Canada K1A 0R2

Dear Minister McKnight:

The purpose of this letter is to advise you that FMC Corporation, the current supplier of M113 light armored vehicles to the Canadian Armed Forces, is still very much interested in the several light armored vehicle programs now under consideration by your department. We submitted a formal proposal dated 14 September 1988 to your predecessor, the Honorable Perrin Beatty, outlining in some detail the proposed FMC approach to each of the related programs. In brief, the proposal described FMC's willingness to undertake future development work as well as final test and assembly in Canada. In addition, we would build a strong team of Canadian suppliers from coast to coast. This team is now in place and FMC has placed other work with some of the suppliers to ensure that they will be fully qualified to undertake the Canadian requirement.

A subsequent proposal with particular emphasis on the purchase of armored personnel carriers for the Land Reserves Modernization Project (LRMP) was made on 19 January 1989. The thrust of this proposal was that FMC believed it could have its vehicles constructed in General Motors Diesel Division facility in London, Ontario at a price far below that which GM could offer for its vehicle. Unfortunately, GM has refused to even discuss such a venture with us obviously preferring to sell DND their more expensive vehicle.

Honorable William McKnight
Page 2

In this regard, it is our understanding that DND, in its review of requirements after the new budget, is giving priority consideration to the procurement of armored vehicles for the LRMP project. As well, we have reason to believe that the plan is to purchase 8x8 wheeled vehicles from GM to meet the LRMP requirement. As we understand it, GM has also offered to assist DND in the financing of this project.

In view of the foregoing and the fact that GM has not been prepared to consider any cooperative venture which might result in the Government realizing some economies, we have continued to search for other ways to produce the LRMP vehicles in Canada at an attractive price for the Government. Our research has shown that we can establish an assembly facility in Western Canada to produce the approximately 200 M113 vehicles and still save the Government \$30M Canadian over the GM proposed price for the 8x8 wheeled vehicle. We are in the process of providing DND officials, under separate cover, with additional cost data to support this position, particularly as it relates to the life cycle costs of our equipment.

Our production proposal for LRMP would, in addition to a final assembly facility in Western Canada, include sourcing a substantial portion of the production effort to our Canadian Industrial Partners located across Canada. Our partners include, amongst others, Volk Precision Industries of Calgary and EBCO Industries of Vancouver.

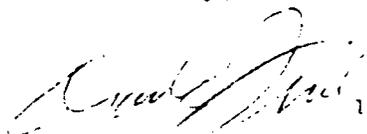
As the designer and builder of the existing M113, FMC and its Canadian team are clearly the most appropriate choice to provide DND with a fully integrated cost effective (capital and life cycle) solution to the department's overall LAV requirements. We believe this can be carried out in such a fashion that a significant portion of the work would be done in Western Canada. It is also our intention to produce the larger Canadian Armed Forces LAV requirement at the same production facility as well as the upgrading of the existing M113's.

Honorable William McKnight
Page 3

FMC recognizes that your department is probably not in a position to deal with all three LAV projects (LRMP, New Vehicles and Upgrade) as an integrated package. We are willing to be flexible with regards to how and when DND might wish to proceed with each of the specific projects. Our willingness, however, to proceed with our Canadian initiatives in the near term will be affected by any decision your department may make with respect to awarding the LRMP project.

We would welcome an opportunity, Mr. Minister, to further amplify our proposal. We will be contacting your office to arrange such a meeting at your earliest convenience.

Sincerely,



Charles Fink

FMC Corporation

Defense Systems International Division
881 Martin Avenue Box 58123
Santa Clara California 95052
408 289-0111

TRANSIT RECORD

File Reference *Companium Corp*

Passed to	Date	Initials
<i>CS</i>	<i>15-6-89</i>	<i>J-D</i>



June 13, 1989

National Defence Headquarters
101 Colonel By Drive
Ottawa, Ontario
K1A 0K2

Attention: Mr. Rob Gillespie
Chief of Supply

Dear Rob:

During the past few weeks, FMC has continued its efforts to convince the Government of Canada that we have an offer which is superior to that of General Motors. Copies of our latest correspondence to Minister McKnight and Ray Sturgeon are attached hereto.

While we obviously will continue to pursue the LRMP, FMC is becoming increasingly frustrated in that we have never been given an opportunity to formally meet with government officials to discuss the merits of our proposal. On the other hand, the government has met on numerous occasions with GM and apparently has, in essence, negotiated a pro forma contract. We have reason to believe that government officials are skeptical of FMC's ability to produce approximately 200 M113s in Canada at a price which is considerably lower than that offered by GM for its 8x8. Yet no one in the government has formally asked FMC to provide further data to support its position or even visited our facility to try and gain a more complete understanding of why we are in a position to make such an offer.

.../2

2
all letters
analysis of all points
submitted on 15-6-89
Defense
CS

- 2 -

If the government is sincerely interested in ensuring its procurement dollars are fully optimized then, to us, it follows that DND should at least enter into some form of fact finding meetings with FMC. We believe that any such sessions will clearly indicate that FMC can offer a competitive product at a lower price than the competition.

We look forward to an opportunity to meet with your officials to discuss the background data on our LRMP proposal.

Yours sincerely,



David E. Doyle
Director
International Business

Enclosures

Corporation

June 9, 1989



Director General
Procurement and Supply
Louis St. Laurent Building
555 de la Carriere Boulevard
Hull, Quebec
CANADA J8Y 6R5

Attention: Mr. R. N. Sturgeon

Subject: Life Cycle Cost Data on M113 Family Vehicles

Reference: Our discussions of 23 May 1989

Gentlemen:

FMC has reviewed the available information on the cost of operating the M113 family of tracked vehicles. The U.S. Army has the largest fleet of M113 vehicles and information available. The most up to date data is from the U.S. Department of the Army Headquarters, Forces Command Pamphlet 37-1, dated 1 April 1988, titled "Equipment Operating Cost and Usage Factors." This data indicates that the average cost of operating a mixed fleet of M113A1 and M113A2 vehicles over a four year period from 1983-1987 was \$4,943 per vehicle per year.

Extending the actual cost experienced for a four year period over twenty years and 150 vehicles provides a twenty year operating and support cost of less, than \$14,830,000. The calculations for our numbers are contained in Attachment I.

Because of the reliability and product improvements incorporated into the M113A2, we believe the cost of maintaining a 150 vehicle M113A2 fleet would be lower than a mixed M113A1/A2 fleet of vehicles. Therefore the 20 year cost of operating and supporting vehicles purchased now should be lower than that projected above.

If you compare these costs to the operating and maintenance cost of other tracked vehicles, they can be used as is. However, if these costs are compared with costs for wheeled vehicles, one must add a factor for the loss of cross-country operating capability inherent in wheeled vehicles.

Mr. R. N. Sturgeon

2

June 9, 1989

In closing, I would like to reiterate a concern that FMC has had for some time. We have not yet had an opportunity of meeting with anyone in the Government to review both the assumptions and raw data which support our cost estimates. We believe our prices are realistic and that we can so demonstrate. FMC is prepared to commit to these figures in the context of entering into a firm fixed price contract which we believe would result in substantial cost savings to the Department of National Defence.

FMC would be more than pleased to meet with you or any other Government officials for a more detailed review of our proposal, either in Ottawa or at our FMC facility in Santa Clara, at your convenience.

Sincerely,

for 

David E. Doyle
Director, International Business

DED/nah/AN5

Attachment

ATTACHMENT I

DATA FROM U.S. DEPARTMENT OF THE ARMY HEADQUARTERS, FORCES COMMAND
(FORSCOM) PAMPHLET 37-1 "EQUIPMENT OPERATING COST AND USAGE FACTORS"

<u>PERIOD</u>	<u>CUM MILEAGE</u>	<u>FUEL COST \$</u>	<u>PARTS *ORG \$</u>	<u>PARTS +DS \$</u>
7-1-83	4,855,616	1,894,666	22,915,753	1,795.795
9-30-87				

Average miles per year = 902

Calculation: $\frac{\$1,894,666 + \$22,915,753 + \$1,795,795}{4,855,616 \text{ mi}} = \5.48 per mile

$\$5.48 \text{ per mile} \times 902 \text{ miles per year} = \$4942.96 \text{ per vehicle per year}$

$150 \text{ vehicles} \times 4942.96 \text{ per vehicle} \times 20 \text{ years} = \$14,828,880 \text{ per year}$

*ORG = Organization Maintenance
+DS = Direct Support Maintenance

- 2 -

If the government is sincerely interested in ensuring its procurement dollars are fully optimized then, to us, it follows that DND should at least enter into some form of fact finding meetings with FMC. We believe that any such sessions will clearly indicate that FMC can offer a competitive product at a lower price than the competition.

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Yours sincerely,



David E. Doyle
David E. Doyle
Director
International Business

Enclosures

Co-Operation

June 9, 1989



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Procurement and Supply
Louis St. Laurent Building
555 de la Carriere Boulevard
Hull, Quebec
CANADA J8Y 6R5

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Sincerely,

for 
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Director, International Business

DED/nah/AN5

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Jul 7-1-83	4,855,616	1,894,666	22,915,753	1,795,795
SEP 9-30-87				

Average miles per year = 902 = 1451 Km.

We want 2000

Calculation: $\frac{\$1,894,666 + \$22,915,753 + \$1,795,795}{4,855,616 \text{ mi}}$ = \$5.48 per mile

x 1.62
~~\$ 8.77 US/Km~~ 3.40 US/Km.

\$5.48 per mile x 902 miles per year = \$4942.96 per vehicle per year

150 vehicles X 4942.96 per vehicle x 20 years = \$14,828,880 per year

220 X *6795* X *20*

3.40
~~0.77~~ X 2000 = \$6795

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\$ 29.9 M ≈ 30 M US.
1.2 to CON

35K/veh overhaul.

OPS LEAD INVENTORY.

34
+15.4
49.4 ≈ 50m

≈ 36 M
w/o overhaul.
ENGL. LABOUR RATE UNKNOWN
PO2 US just P

Charles Fink
Vice President

FMC Corporation
881 Martin Avenue
Box 58123
Santa Clara California 95052

June 9, 1989

The Honorable William McKnight, P.C. M.P.
Minister of National Defence
Major General George Pearkes Bldg.
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Honorable William McKnight
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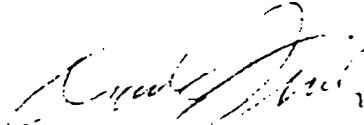
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Honorable William McKnight
Page 3

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We would welcome an opportunity, Mr. Minister, to further amplify our proposal. We will be contacting your office to arrange such a meeting at your earliest convenience.

Sincerely,



Charles Fink



PAI-PUBLIC AFFAIRS INTERNATIONAL
A Division of PARC/Public Affairs Resource Group Ltd.

June 9, 1989

Director General
Procurement and Supply
Louis St. Laurent Building
555 de Carriere Boulevard
6th Floor
Hull, Quebec
J8Y 6R5

Attention: Mr. R.N. Sturgeon

Dear Mr. ^{Ray} Sturgeon:

As promised, herewith is a copy of the letter from FMC Corporation.

Original of same is being sent to you by courier from California today.

Yours sincerely,

A handwritten signature in cursive script, appearing to read "Brian", is written above the typed name.

Brian L. Mersereau
Vice President

Enclosure

32460-100-008

SECRET

MEMORANDUM

3136-5-2460 (DPSL)

12 Jun 89

Distribution List

INFORMATION PACKAGE FOR
THE MINISTERS ON THE
MILITIA LIGHT ARMoured
VEHICLE PROJECT

1. Enclosed is the subject package that you requested. It has been prepared in conjunction with the PM and PD.
2. I would like you to note that negotiations have now been successfully completed with General Motors. DSS will be contacting you, CEM or ADM (Mat) on this fact. Also, officials have prepared the contract submission.
3. The contract will be for \$90 million plus \$2.5 million for U.S. non-recurring cost recovery charges. It includes an initial logistics support package as well as vehicles.
4. The contract amount is about half the \$175M (\$BY) budgeted for the GM portion of the project. The remainder of the GM budget for ILS elements will be contracted during the next year.
5. With regard to U.S. non-recurring cost recovery charges, the company has agreed, in writing to absorb anything over \$2.5 million. In the meantime, DSS will pursue a full waiver and the company a reduction of the amount.
6. I recommend we now seek all the necessary approvals as soon as the opportunity presents itself. This is important in view of:
 - a. the offer being only valid to 31 Jul 89; and
 - b. General Motors still indicates closure without an early contract award.

.../2

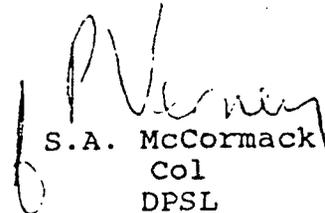
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- 2 -

7. Also, for the tracked vehicle portion of the project, the opportunity to take advantage of Invar's existing production line for installing TOW Under Armour Turrets expires 20 Sep 89. The eight vehicles would be provided from existing stocks and replaced when the MILLAV project obtains tracked vehicles from FMC Corporation.


S.A. McCormack
Col
DPSL
994-9416

Enclosure: (1)

DISTRIBUTION LIST

<u>Action</u>	<u>Information</u>
CS	CEM CLDO DG Proc S PD ASI PM MILLAV PD LRMP D Cabinet Ln

SECRET

000914

SECRET
(Unclassified w/o Enclosures)

MEMORANDUM

3136-5-2460 (PM MILLAV)

12 Jun 89

CS (thru CEM) *12/6*

INFORMATION PACKAGE FOR
THE MINISTERS ON MILLAV PROJECT

Ref: Telecon CS/CEM, 12 Jun 89

1. As per Ref, enclosed is the subject information package that has been reviewed.
2. For your consideration and onward transmission.

P. Verney

P. Verney
DPSL 2
994-9416

L.W. Hyttenrauch

L.W. Hyttenrauch.
LCol
PM MILLAV
995-2194

SECRET
(Unclassified w/o Enclosures)

SECRET
(Unclassified w/o Enclosure)

MEMORANDUM

3136-5-2460 (CS)

12 Jun 89

MSO

INFORMATION PACKAGE
FOR THE MINISTERS ON
THE MILITIA LIGHT
ARMoured VEHICLE PROJECT

1. As requested by the Minister's Executive Assistant, Mr. Moorcroft, enclosed is an information package on the Militia Light Armoured Vehicle Project dealing with:
 - a. background on the various interested companies in the project; and
 - b. information on ministerial and departmental positions according to their respective Project Office contacts.
2. The information should be placed with MND by this evening so that he can review it at his earliest opportunity.


E.J. Healey
ADM (Mat)
992-6622

Enclosure: 1

SECRET
(Unclassified w/o Enclosure)

SECRET

AIDE-MÉMOIRE FOR
THE MINISTERS

SUBJECT: Militia Light Armoured Vehicle (MILLAV) Project

BACKGROUND:

1. This aide-mémoire and attached information has been prepared at the request of your Executive Assistant, Mr. Moorcroft, to provide background on the various interested parties in the MILLAV Project and information on ministerial and departmental positions.
2. The project involves the acquisition of 221 light armoured vehicles for Militia training.
3. The procurement strategy agreed to by the Interdepartmental Senior Review Board calls for acquiring:
 - a. 199 wheeled vehicles from Diesel Division of General Motors, London, Ontario; and
 - b. 22 tracked vehicles from FMC Corporation of California, whose vehicles are better suited for the field engineering and anti-armour training roles.
4. The procurement strategy is based on consideration of all relevant factors including: operational requirement, maintaining the defence industrial base, industrial and regional benefits, and life cycle costs.
5. Probably as a result of the budget announcement and the fact that there will be no further buys of light armoured vehicles for at least five years, Thyssen Industries AG of West Germany and its wholly owned subsidiary Bear Head Industries Ltd (BHI) appear to be expressing strong, renewed interest in the MILLAV Project.
6. Annex A provides a synopsis on the situation with regard to General Motors, FMC Corporation and Thyssen.

POSITIONS OF MINISTERS AND OTHER
GOVERNMENT DEPARTMENTS

7. The table below summarizes the positions of Ministers and their departments according to their respective Project Office contacts.

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	<u>Ministerial</u>	<u>Departmental</u>
ISTC	Supportive	Supportive
External Affairs	Apparently has reservations but details are unknown.	Supportive
ACOA	With no future buys of light armoured vehicles for at least five years, the Minister could have reservations about Thyssen/Bear Head not having the opportunity to participate in this project.	Supportive. Note that ACOA agreed to remove reference to Thyssen/Bear Head and future light armoured vehicle acquisitions because there will be no such acquisitions for at least five years.
WDO	Could support any attempt by FMC Corp. to put assembly in Western Canada if tracked vehicles were procured for the whole requirement.	Supportive
Supply and Services	May question why DND proposes to purchase primarily wheeled rather than tracked vehicles.	Supportive
Finance	Reservations about: - advisability of announcing another major procurement soon after the budget, - adequate basis for the project in view of the fact that the Defence Review process is not complete.	As per Ministerial concerns.

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Possible support in view of the fact that procurement from Thyssen/Bear Head (rather than GM) would be more expensive because of potentially significant Government investment for

facilitization (50 to 85% of the cost) and foregone revenue (in tax credits). By the terms of the Understanding in Principle with Bear Head, the Government has agreed to consider such assistance.

8. The support of Ministers and their departments is based on:

- a. recognition of the operational requirement;
- b. the proposed acquisition of 199 vehicles from GM would mean continued operation of the company's London, Ontario, armoured vehicle facility until production resumes for export sales in 1991; and
- c. major industrial and regional benefits associated with this purchase from GM (details in Annex A) and future export sales.

SECRET

SUMMARY COMPARISON OF
 GENERAL MOTORS, FMC AND THYSSEN

Comfort Level
 Rating System

- 1 = Low
- 2 = Medium
- 3 = High

	<u>General Motors</u> (ISRB agreed strategy)	<u>FMC</u>	<u>Thyssen/Bear Head</u>
1 Operational Consideration			
- Suitability	3	2	1
- Commonality	3	3	1
2 Industrial Base	3	1(See Note 1)	1(See Note 2)
3 Industrial & Regional Benefits	3	1(See Note 3)	1(See Note 4)
4 Price			
- Capital Cost	2(See Note 5)	3	1(See Note 6)
- Life Cycle Cost	3	2	1(See Note 6)
5 Schedule	3	2	1
6 Overall	20	14	7

- Notes:
1. Low rating based on the fact that: assembly by FMC's Canadian partner (as yet undesignated) could well result in closure of GM's plant, FMC has not indicated any prospects for participation of a Canadian partner in export sales, and DND business alone is insufficient to sustain a partner.
 2. Low rating based on the fact that: manufacture by Thyssen/BHI could well result in closure of GM's plant, BHI has indicated no prospects for export sales, and DND business alone is insufficient to sustain BHI.
 3. Low rating based on FMC's indication that Canadian participation would be for assembly only.
 4. Low rating based on Canadian content for a small order would probably be less than 40% and involve assembly only.
 5. Although capital costs for GM vehicles are higher than for FMC vehicles, the in-service costs more than compensate, hence, lower life cycle cost.
 6. Thyssen/BHI have not been requested to submit price information, but the set-up costs would be very high, thus driving up capital and life cycle costs.

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ANNEX A
TO AIDE-MÉMOIRE
FOR THE MINISTERS

COMPARISON OF GENERAL MOTORS, FMC
AND THYSSEN

GENERAL MOTORS

FMC

THYSSEN

1. Background

- | | | |
|--|--|---|
| <ul style="list-style-type: none">- In Aug 88, GM submitted an unsolicited proposal to MND indicating: lack of orders for 1989 & 1990 and likely plant closure.
- In Oct 88, MND indicated by letter to GM he would seek approval of his colleagues for procurement of GM vehicles. | <ul style="list-style-type: none">- FMC submitted price and availability in Jul 88.
- Since learning that DND will propose acquisition primarily of GM wheeled vehicles, FMC proposed in Jan 89 a teaming arrangement with GM for production of tracked vehicles.
- Teaming arrangement with GM did not materialize, | <ul style="list-style-type: none">- Interest since mid-85 in creating a manufacturing plant in Cape Breton (Phase I to produce armoured vehicles for export, Phase II to expand in to commercial equipment).
- On 27 Sep 88, the Crown signed an Understanding in Principle with Bear Head Industries Ltd (BHI), a wholly-owned subsidiary of Thyssen, where by the Crown would consider assistance in establishing a Cape Breton facility. MND to "consider the participation of the company in the Light Armoured Vehicle Procurement Program envisaged to occur in the early-to-mid 1990's provided the Company" meets certain obligations. Note: MILLAV <u>not</u> part of that program. |
|--|--|---|

SECRET

000921

SECRET

ANNEX A
TO AIDE-MÉMOIRE
FOR THE MINISTERS

and FMC may now propose an assembly arrangement with a Western Canadian company

- In Feb 89, ACOA directed BHI to produce an acceptable long term business plan, which has not been submitted yet

2. Operational Considerations

- Suitability. The purpose of the project is to provide the Militia with vehicles for training in territorial defence, peacekeeping, and NATO readiness. The vehicles themselves may also be used for territorial defence and aid to the civil power, roles for which wheeled vehicles are better suited.

- Suitability. As per column 1.

- Suitability. Discussions at ARMX indicate that Thyssen does not currently have an infantry section carrier that would meet DND's requirements. Certainly, the Fox (a nuclear, chemical reconnaissance vehicle displayed at ARMX) is not suitable as a section carrier.

- Commonality. Procuring GM vehicles would result in commonality with the Militia's existing wheeled armoured vehicle fleet.

- Commonality. Procuring M113s would result in commonality with DND's existing fleet of tracked vehicles used by the Regular Force.

- Commonality. Procuring any of Thyssen's armoured vehicles would result in an orphan fleet with respect to operations, training and support.

SECRET

SECRET

ANNEX A
TO AIDE-MÉMOIRE
FOR THE MINISTERS

3. Industrial Base

- Procurement from GM would mean continued operation of its armoured vehicle plant over the next two years until sound prospects for export sales result in production.
- FMC manufacture at a plant other than GM's could well result in closure of the latter.
- Manufacture by BHI could well result in GM closure.
- The Crown has already invested \$34.5M in establishing GM facility.
- GM has studied and rejected manufacture of M113s as impractical.
- Without export orders, a BHI plant would probably not survive based on DND's business alone.
- A plant other than GM's would probably not survive based on DND's business alone.

SECRET

000923

SECRET

ANNEX A
TO AIDE-MÉMOIRE
FOR THE MINISTERS

4. Industrial &
Regional Benefits

- GM is committed to:
 - 60% Canadian content
 - 40% foreign content entirely offset by indirect benefits
 - placing direct & indirect benefits amounting to 15% of total contract value in Atlantic Canada and 15% in Western Canada
 - 1,400 person-years of direct employment over 3 years
 - No contract would result in laying off 350 people.
- FMC has never specified a set of industrial & regional benefits.
- Relatively small quantity would probably result in Canadian content of less than 40% (principally assembly).

SECRET

000924

SECRET

ANNEX A
TO AIDE-MÉMOIRE
FOR THE MINISTERS

5. Price

Life Cycle Costs

- Based on actual DND data for wheeled and tracked vehicles, the former are considerably cheaper to operate and maintain. Therefore, their life cycle costs are lower.
- Capital Cost. GM has quoted a firm fixed price valid to 31 Jul 89.

Life Cycle Costs

- As per column 1.

Capital Cost

- U.S. production would be about \$40M (\$ 89/90) less than GM option.
- Canadian production would involve at least a \$30M premium.
- If FMC produced at a Canadian plant, there would probably be no delivery until 1991 because of facilitization time.

- No cost data submitted or requested. (It was not required for support of the approved procurement strategy.)
- For a relatively small order the premium for any Canadian production would likely be very high, since BHI has no existing facility.
- By the terms of the Understanding in Principle with BHI, the Government has agreed to consider significant financial assistance. Impact on this project could mean covering 50 to 85% of facilities and machinery plus tax credits.
- BHI draft business plan indicated production would commence 1992, which is questionable as facility construction has not begun.

6. Schedule

GM deliveries would commence in FY 90/91 and extend to 92/93.

SECRET

SECRET

ANNEX A
TO AIDE-MÉMOIRE
FOR THE MINISTERS

7. Follow-On Buys

- Significant future acquisitions of light armoured vehicles over the next 15 years are problematic in view of budgetary constraint. However, subject to Cabinet consideration, procurement strategy for any future acquisition would be competitive. i.e. The proposed procurement of vehicles from GM is not anticipated to impact selection for future acquisitions.

- As per column 1.

- As per column 1.

SECRET

000926

PMO - TANK
PM MILLAR SECTION
JUN 7 1989
P.A. TO FILE NO: 32466-00-008
OR
DISCARD <input type="checkbox"/>

MEMORANDUM

3136-5-2207

29 May 89

Distribution List

DRAFT LETTER FROM FMC CORP TO MND

1. I would be inclined to make a few simple points in response to this draft letter.

- a) FMC has made several previous attempts to suggest a Canadian produced option for MIL LAV;
- b) Their cost figures, whether referring to a set-up at GM or at a new facility, have not been credible;
- c) Setting up assembly for only 200 vehicles is very unlikely to provide the seed for any further activity; and
- d) We haven't yet seen the latest numbers which are the subject of this letter.

2. I understand that ADM(Mat) has been dealing directly with the Minister's office and with the DCDS staff concerning a related attempt by Thyssen to refloat their proposal to have this program sourced to them. I am not sure what ADM(Mat) has done to date or where the issue stands. I am only aware of it due to a passing comment made to me by ADM(Mat).

③
 PM Millar
 info. MND?
 response should
 be "thanks. Don't
 call us; we'll
 call you if we
 need you"
 5 June 89

②
 CS copy SECRET
 change the dates and
 the project and other sounds
 like HIALPADS all over again.
 It almost certainly spells trouble
 for the military approval process
 We should discuss if we
 have any options on how to
 "head this one off" at the time
 I hadn't B comment to me earlier
 3.1/4

Enclosure:

DISTRIBUTION LIST

<u>Action</u>	<u>Info</u>
Assoc ADM(Mat)	CEM DG Proc S

P.S. This may prove
 to make our collection
 of funds more difficult to
 defend than the Enclave one.
 B

R.D. Gillespie
 CS
 992-6523
 R.D. Gillespie
 May

NATIONAL DEFENCE HEADQUARTERS

MAY 30 1989

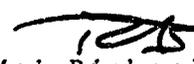
ADM(MAT)/CEM

79224



① RS

I just received this
"draft" FME corp. letter
to the MND from the
hands of R. Moorcroft.
Please provide comments
and assessment of the
letter to EA MND
BF. 31 may


Maj Richard Bickley
SO/Assoc ADM(Mat)
OE/SMAA(Mat)
992-9239

29/5

DRAFT

The Hon. William McKnight P.C. M.P.
Minister of National Defence
Major General George Pearkes Bldg.
Ottawa, Ontario
K1A 0R2

Dear Minister McKnight:

The purpose of this letter is to advise you that FMC Corporation, the current supplier of M113 light armoured vehicles to the Canadian Armed Forces, is still very much interested in the several light armoured vehicle programs now under consideration by your department. We have submitted a formal proposal dated 14 September 1988 to your predecessor, the Honourable Perrin Beatty, outlining in some detail the proposed FMC approach to each of the related programs. In brief, the proposal described FMC's willingness to undertake future development work as well as final test and assembly in Canada. In addition, we would build a strong Team of Canadian suppliers from coast to coast. This Team is now in place and FMC has placed other work with some of the suppliers to ensure that they will be fully qualified to undertake the Canadian requirement.

A subsequent proposal with particular emphasis on the purchase of armoured personnel carriers for the Land Reserves

Modernization Project (LRMP) was made on 19 January 1989. The thrust of this proposal was that FMC believed it could have its vehicles constructed in GM's facility in London, Ontario at a price far below that which GM could offer for its vehicle. Unfortunately, GM has refused to even discuss such a venture with us obviously preferring to sell DND their own more expensive vehicle.

In this regard, it is our understanding that DND in its review of requirements after the new budget, is giving priority consideration to the procurement of armoured vehicles for the LRMP project. As well, we have reason to believe that the plan is to purchase 8x8 wheeled vehicles from General Motors Diesel Division of London, Ontario to meet the LRMP requirement. As we understand it, GM have also offered to assist DND in the financing of this project.

In view of the foregoing and the fact that GM has not been prepared to consider any cooperative venture which might result in the government realizing some economies, we have continued to search for other ways to produce the LRMP vehicles in Canada at an attractive price for the Government. Our research has shown that we can establish an assembly facility in Western Canada to produce the approximately 200 M113 vehicles and still save the Government \$30M Canadian

over the GM proposed price for their 8x8 wheeled vehicle. We are in the process of providing DND officials, under separate cover, with additional cost data to support this position, particularly as it relates to the life cycle costs of our equipment.

Our production proposal for LRMP would, in addition to a final assembly facility in Western Canada, include sourcing a substantial portion of the production effort to our Canadian Industrial Partners located across Canada. Our partners include, amongst others, Volk Precision Industries of Calgary and EBCO Industries of Vancouver.

As the designer and builder of the existing M113, FMC and its Canadian Team are clearly the most appropriate choice to provide DND with a fully integrated cost effective (capital and life cycle) solution to the department's overall LAV requirements. We believe this can be carried out in such a fashion that a significant portion of the work would be done in Western Canada. It is also our intention to produce the larger Canadian Armed Forces LAV requirement at the same production facility as well as the upgrading of the existing M113's.

FMC recognizes that your department is probably not in a position to deal with all three LAV projects (LRMP, New Vehicles and Upgrades) as an integrated package. Thus, for our part, we have considerable flexibility with regards to how and when DND might wish to proceed with each of the specific projects. There is, however, one very major concern that we have. As it appears that LRMP will probably be the first project which is authorized, FMC would find it impossible to initiate any significant activity in Canada in the next few years if GM is awarded the LRMP contract. Obviously, this could position GM as a major competitor for any future new LAV's as their 8x8 vehicle would then be in inventory. Clearly, the LRMP is absolutely vital to FMC if we are to proceed with our Canadian initiative in the near term.

We would welcome an opportunity, Mr. Minister, to further amplify our proposal. We will be contacting your office to arrange such a meeting at your earliest convenience.

Yours sincerely,

①

MEMORANDUM

3136-5-2207 (DPSL)

24 Feb 89

PMO	-	TANK
<i>pm</i>		SECTION
FEB 27 1988		
P.A. TO FILE NO: 8055-1		
OR 32460-100-008		
DISCARD <input type="checkbox"/>		

DG Proc S

PREMIUM FOR GM PRODUCTION OF M113s

Ref: FMC Corporation letter, 13 Feb 89

1. In his minute to Ref, CS indicated to CEM that they should get a quick answer on whether FMC's latest information on the subject premium is consistent with previous information.
2. Enclosed, therefore, is a self-explanatory aide-mémoire for CS. PM Tank has seen the aide-mémoire and concurs with it.
3. I request you sign the covering memo to CS.

S.A. McCormack
S.A. McCormack
Col
DPSL
994-9416

Enclosures:

② PS - CS directed this at CEM however as it is a follow up to our previous BN on subj, we responded.

APM

③ *A.L. McEachern*
Yours to note.

④
NTF
Noted. *H* PM 11264V
27 Feb 89

A. L. McEACHERN COLONEL
FEB 27 1989
PM TANK

F: 0 _____

Date 27 Feb 89

PA to NDRMS

OR file required

3135-6-2207 (DPSL)

MEMORANDUM

24 Feb 89

*cc INFO
CEM*
presume you have the info - it should have come back to left of us.
ORIGINAL SIGNED BY: W. D. GILLESPIE, CS
8.3.89

PMO
SECTION
18 1989
FILE NO: 32460-100-008
OR
DISCARD <input type="checkbox"/>

PREMIUM FOR GM PRODUCTION OF 113s

Ref: FMC Corporation letter, 13 Feb 89

1. In your minute to Ref, you indicated that you and CEM should get a quick answer on whether FMC's latest information on the subject premium is consistent with previous information.
2. To provide an answer, DPSL has prepared a self-explanatory aide-mémoire, which is enclosed. PM Tank has seen the aide-mémoire and concurs with it.

R.N. Sturgeon
R.N. Sturgeon
DG Proc S
994-8905

Enclosure:

3
DGHEM for PM MILLAV
Presumably you agree with this. Why wasn't it stuffed back to me too? (No answer needed but.....!)

4
PM MILLAV
The answer to Mini 3 rests with DProcS, not us. Let's not worry about it.
14 Mar 89 JA DProcM

78398

5
NTF
Noted.
3 Apr 89
PM MILLAV

AIDE-MÉMOIRE

FOR CS

SUBJECT: FMC Corporation's 13 Feb 89 letter on the premium for General Motors production of M113s.

DISCUSSION

1. The subject letter indicates a premium of \$16-20M for GM to produce M113s.

2. The following points are pertinent:

a. this premium is consistent with the \$10-20M range indicated in FMC's 19 Jan 89 letter to MND;

b. however, it is inconsistent with the up to 40 percent premium for Canadian production (excluding facilitization, capital equipment and shut down) indicated in FMC's 29 Jul 88 response to a formal price and availability inquiry. Forty percent translates into a \$30M premium;

c. while it is consistent with GM's appreciation of the special tooling, fixtures and capital equipment, it does not include the costs that GM would incur either to:

(1) build a 150,000 square foot extension to accommodate M113 production, or

(2) remove existing tooling, fixtures and capital equipment, store it and subsequently reinstall it for wheeled vehicle production.

3. GM would probably build an extension rather than convert existing facilities. Because plant conversion would take up to two years, it would prevent the company from production, commencing in 1991, for anticipated export sales.

4. In the case of either plant extension or conversion, the costs are likely to be several millions of dollars. Extension would cost about \$15M, a Class C estimate based on DCEC cost factors for construction of heavy industrial facilities. Therefore, a \$30M premium is probably much closer to reality.

.../2

- 2 -

CONCLUSION

5. Because a \$30M premium vice (\$16-20M) is realistic, the previously prepared aide-mémoire on FMC's proposal for GM production of M113s does not require amendment.

Responsible Director: S.A. McCormack, Colonel, DPSL,
994-9416

Prepared By: P. Verney, DPSL 2, 994-9435

Date Prepared: 24 Feb 89

CS/DGSPDI OR

FMC Corporation

Defense Systems International Division
881 Martin Avenue Box 58123
Santa Clara California 95052
408 289-0111

File No _____

Date 14 Feb 89

PA to NDRMS

OR file required

February 13, 1989

Mr. R.D. Gillespie
Chief of Supply
Department of National Defence
101 Colonel By Drive
Ottawa, Ontario, Canada K1A 0K2



(1)
INFO DGSPDI
As discussed. Please info for
what it's worth. We
should get a quick
answer on whether
or not this is
consistent with other
info

ORIGINAL SIGNED BY
R. D. GILLESPIE, CS
15.2.89

Dear Rob:

Thanks very much for taking time from your very busy schedule to meet with Bob Schwartz and me on Wednesday of last week. We especially appreciated your willingness to rearrange your schedule at the last minute to ensure your availability to meet with us.

As mentioned during our meeting, FMC is committed to preserving jobs in the GM of Canada London, Ontario facility. In addition, the LRMP order would provide work for our other Canadian industrial partners such as Atlantic Defense Industries, Ltd., Nova Scotia, Industrial Rubber, New Brunswick, Volk Precision Industries, Alberta, and EBCO Industries, British Columbia.

Per your request during the meeting, we are enclosing more detail of the C\$10-20M additional costs which would be incurred to produce M113 vehicles in GM of Canada's production facility, compared with producing them in San Jose. Obviously we can better refine the estimate in cooperative discussions with GM of Canada and solicit the assistance of DND to gain GM's cooperation.

Should you require additional assistance from FMC, please do not hesitate to ask.

Sincerely,

Dave Doyle

David E. Doyle
Director
International Business

DED/cal

enclosure

(3) DPSL
Info:

(4) DPSL 2
Info
Lawson
DA/DPSL/C
994-9421
17/2/89

7/2
DG Proc/Sec
16/2/89



ADDITIONAL COSTS TO PRODUCE 213 M113 VEHICLES
IN GM-CANADA PRODUCTION FACILITY:

	<u>C\$</u>
SPECIAL TOOLING AND FIXTURES TO MANUFACTURE M113 VEHICLES (HULL FABRICATION, MAJOR SUB-ASSEMBLIES, ASSEMBLY & TEST)	4M-5M
ADDITIONAL CAPITAL EQUIPMENT TO AUGMENT EXISTING GM CAPABILITY (SUCH AS WELDING EQUIPMENT, AIR TOOLS, DIP TANKS, INSPECTION EQUIPMENT, ETC.)	7M-8M
LABOR PREMIUM AT GM-CANADA FACILITY (LEARNING CURVE, LOW PRODUCTION RATE, TECHNOLOGY TRANSFER, ETC.)	5M-7M
	<hr/> 16M-20M

THIS RANGE COULD BE REDUCED AS WE BETTER UNDERSTAND THE GM-CANADA FACILITY AND THEIR EXISTING TOOLING AND CAPITAL EQUIPMENT THAT COULD BE USED FOR THE M113.

INTER-ORGANIZATION
DIESEL DIVISION

GENERAL M. IS OF CANADA LIMITED
Box 5160, LONDON, Ontario N6A 4N5

February 7, 1989

TO: W. L. Claggett

SUBJECT: BUILD OF M113 VEHICLES AT DDGM

ASSUME: Required to run LAV and M113 at a rate of 15 per month of each.

FLOOR SPACE:

Would require an additional 150,000 sq. ft. with crane service.

CAPITAL EQUIPMENT:

- Large dip tank for aluminum items to clean parts prior to welding
- 30 new wire feed welders set-up for aluminum
- 7 new hull weld trunnions
- 3 new robots for aluminum welding

TOOLING: - Complete new set of hull fixtures

- All new fabrication/machining fixtures and templates
- All sub-assembly and line assembly tooling required new

WELDER TRAINING:

- Only 10% of our existing work force are qualified for aluminum welding, there would be a large training program required to build M113

FACILITY LEAD TIME:

- To erect and equip 150,000 sq. ft. a new building would require 24 months

* TOOLING LEAD TIME:

- To design and build a tooling program for M113 would require 20 months

PAINT FACILITIES:

- Require large new wash booth for detergent spray/acid foam cleaning of hull prior to paint

D. T. McCague

000939

CONFIDENTIAL
(UNCLASSIFIED with Enclosure Removed)

MEMORANDUM

1450-1 (DG Exec Sec)

20 Feb 89

→ C of S MND
EA/Assoc MND

*MSO
X1228*

AIDE-MEMOIRE FOR THE MINISTERS
THE FMC CORPORATION PROPOSAL

272.2

Enclosed for the Ministers is an Aide-Memoire,
prepared by ADM(Mat), with regard to the above subject.


C.J. Gauthier
DG Exec Sec
992-8486

Enclosure: 1

cc: DM
CDS
VCDS
ADM(Pol)
DCDS
ADM(Mat)
ADM(Fin)
DG Info
D Parl A
D Cab Ln

CONFIDENTIAL
(UNCLASSIFIED with Enclosure Removed)

CONFIDENTIAL

AIDE-MEMOIRE
FOR MINISTERS

SUBJECT: The FMC Corporation proposal for production of tracked armoured vehicles at General Motors facilities through a teaming arrangement.

BACKGROUND

1. National Defence has a requirement for up to 221 light armoured vehicles to train Militia in mechanized operations.

2. The current procurement strategy, approved by the Interdepartmental Senior Review Board, is to purchase 199 wheeled vehicles from the Diesel Division of General Motors, London, Ontario, and 22 tracked vehicles from FMC Corporation, San José, California. The particular applications for the 22 vehicles make it impractical for General Motors to produce them.

3. The General Motors vehicles meet the operational requirement. Other reasons for this procurement are:

- a. the order would contribute to the maintenance of the defence industrial base. General Motors, the only manufacturer of light armoured vehicles in Canada, has produced such vehicles for the United States Marine Corps as well as the Canadian Forces. The company anticipates orders for at least 1,100 vehicles in the period 1991 to 1996. External Affairs assesses this expectation as reasonable. However, the parent company, General Motors Inc, is considering closing the London facility in the absence of any orders involving production in 1989 and 1990. A closure could be permanent and mean production for future contracts at a United States production facility. The company advises that the proposed purchase of 199 vehicles for Militia training would ensure continued operations at its London facility; and
- b. there would be significant industrial and regional benefits, notably 60 percent Canadian content and indirect benefits to offset entirely the 40 percent foreign content. Of these direct and indirect benefits, business amounting to 15 percent of the total contract value would be

.../2

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- 2 -

placed in Atlantic Canada and 15 percent in Western Canada.

4. On 19 January 1989, after the formulation and approval of the procurement strategy, FMC Corporation wrote to the Minister of National Defence (Flag A) and offered to produce tracked vehicles at General Motors through a teaming arrangement. The proposal is in distinct contrast with FMC's response in July 1988 to an official Supply and Services inquiry that included a request for specific information on the manufacture of tracked vehicles in Canada. While acknowledging in general terms the possibility of Canadian industrial participation, the company recommended production in the United States as a significantly cheaper option for what it considers a small order. FMC's current proposal is assessed below on the basis of price, operational requirement, practicality of General Motors' involvement, and industrial and regional benefits.

PRICE

5. Although the FMC proposal may result in lower capital costs than the current procurement strategy, two points are relevant: the company probably overstates the savings; and tracked vehicles are more expensive than wheeled vehicles in terms of life cycle costs.

6. Capital Costs. FMC's proposal provides only vague price information and, on the subject of premium for Canadian production, is inconsistent with the price information submitted last July. At that time, FMC estimated the premium for Canadian production to be 15 to 40 percent, excluding the costs of facilitization, capital equipment and shut down. Accordingly, the premium is more likely to be in the order of \$30M for any significant level of manufacture rather than \$10M to \$20M as indicated in the current proposal. Therefore, 221 tracked vehicles would likely cost about \$106M, making it only about \$9M cheaper than the current approach, which primarily calls for wheeled vehicles.

7. Cost of Ownership over 20 Years. The following table compares the life cycle costs of implementing the current strategy and the FMC proposal. All figures reflect net present value:

.../3

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000942

<u>Life Cycle Cost Comparison</u>		<u>(\$M)</u>	
<u>Option</u>	<u>*Capital Cost</u>	<u>Recurring Costs over 20 Years</u>	<u>20 Year Cost of Ownership</u>
- 199 General Motors Wheeled vehicles and 22 Tracked Vehicles	115	29	144
- 221 FMC tracked vehicles produced by General Motors	106	46	152

* The Capital Cost column represents the acquisition cost for the vehicles only. The total Project Cost which includes spares, manuals and training is estimated at \$199.3M BY.

OPERATIONAL REQUIREMENT

8. Both General Motors' wheeled vehicles and FMC's tracked vehicles satisfy the operational requirement. Therefore, operational performance is not a factor for giving preference to one proposal over the other.

PRACTICALITY OF GENERAL MOTORS PRODUCING FMC'S TRACKED VEHICLES

9. A major impediment to the FMC proposal is its impracticality as far as General Motors is concerned. Production of FMC's tracked vehicles would require aluminum rather than steel welding of vehicle hulls. Therefore, General Motors would have to install new production equipment in its existing floor space or in expanded floor space. In both cases, the company estimates the conversion would require 20 months and mean: no manufacturing in 1989 and 1990, and laying off about 150 production personnel. Also, in 1991 and 1992 the company's production facilities would be fully committed to the Canadian order and unable to accommodate anticipated foreign orders for approximately 300 vehicles.

10. Another impediment to the FMC proposal is that the government cannot insist that General Motors produce .../4

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- 4 -

tracked vehicles. Such a solution is further complicated because General Motors already makes a suitable product.

INDUSTRIAL AND REGIONAL BENEFITS

11. The current approach has definite and significant industrial and regional benefits. FMC's proposal, on the other hand, says little on the nature and extent of industrial and regional benefits. Producing tracked vehicles at General Motors facilities could mean only assembly and test rather than any manufacture of or Canadian subcontracting for components.

CONCLUSION

12. The FMC proposal has some surface level appeal in terms of acquisition costs and industrial benefits. Further analysis however, indicates that the current plan to acquire wheeled vehicles from General Motors has lower life cycle costs and higher industrial benefits. In view of these conclusions the FMC proposal should be rejected.

Responsible Group Principal: E.J. Healey, Assistant
Defence Minister
(Materiel) National
Defence

Responsible Director: S.A. McCormack, Colonel, Director
Procurement and Supply Land 994-9416

Officer Available to
Answer Queries: Mr. P. Verney, Directorate of
Procurement Supply Land.

Flag A: FMC Corporation letter to MND, 19 Jan 89

CONFIDENTIAL

000944

881 Martin Avenue
Box 58123
Santa Clara California 95052

(CS) DGSPDI OR

File No _____

Date 24.1.89

PA to NDRMS

January 19, 1989

The Honorable Perrin Beatty, P.C., M.P.
Minister of National Defence
101 Colonel by Drive
Ottawa, Ontario
Canada K1A 0K2

Dear Minister Beatty:

It is our understanding that your department is currently giving priority consideration to the purchase of armored personnel carriers for the Land Reserve Modernization Project (LRMP). We understand the government is also considering the purchase of 8x8 wheeled vehicles from GM of Canada, London, Ontario. The purpose of this letter is to propose an alternate procurement plan that will enable the DND to fill the LRMP requirement with the currently fielded M113, produced in Canada, at a savings to the Government of approximately \$30M to \$40M Canadian.

FMC's 29 July 1988 submittal of price and availability information for the LRMP Project quoted a price of approximately \$72M Canadian for the entire requirement of 213 M113 vehicles produced in our San Jose, California facility. Based upon information publicly available from U.S. sources concerning U.S. Government procurement of the GM of Canada 8x8 wheeled product, we estimate the GM price for 213 vehicles to be approximately \$122M. This is a premium of \$50M.

We recognize that the Government of Canada desires to maintain a defense production capability and to procure products from Canadian sources when possible. However, we feel that FMC can fully satisfy the LRMP requirement from both a product and production perspective at a premium that is far less than that being contemplated by the GM solution.

ORIGINAL SIGNED BY
R. D. GILLESPIE, CS
27.1.89

Handwritten notes:
① CET. Done
Advance copy.
D. Dwyer will presumably follow.
SPDS (by Fax)
R. Dwyer DPSC work
with AT ~~TRUCK~~ (W)
to prepare comments
on this. CET and I
should be prepared to
respond to general terms
at least by end of the
week.

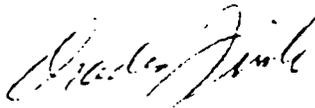
2

As we have stated in previous letters to you, FMC is firmly committed to supplying the Canadian Forces' armored vehicle requirements from a Canadian production base. As further evidence of this commitment, FMC is prepared to produce the 213 M113 vehicles for the LRMP project in the facilities of GM of Canada, Ltd., under a teaming agreement with GM. We estimate this could be done at a cost of only \$10M to \$20M over the U.S. production price, resulting in the previously mentioned savings to the Government of \$30M to \$40M over the GM wheeled product price.

Although we believe the benefits of the above proposal to the Government are substantial, we have been unable to gain the support of GM of Canada. Discussions are continuing in this regard. We believe it is in the best interest of all parties to implement a joint proposal and ask for your personal support of this initiative.

I would welcome the opportunity to review FMC's proposal with you. We will be contacting your office to arrange such a meeting at your earliest convenience.

Yours truly,



Charles Fink

sp

FMC MESSAGE TO GM - CONTINUED

- THE LAND RESERVE MODERNIZATION PROJECT (LRMP) PROVIDES THE GM-FMC TEAM THE UNIQUE OPPORTUNITY TO PLACE THE COMPETITIVE OFFERING FOR LAV INTO PRODUCTION, IN CANADA, PRIOR TO THE COMPETITIVE TEST AND SELECTION.
- WE BELIEVE TEAMING NOW FOR BOTH THE LRMP AND LAV PROGRAMS ENSURES BOTH COMPANIES WIN "SIGNIFICANT PIECES OF A LARGER PIE". THIS PAYOFF IS MUCH GREATER THAN WINNING ALL OF THE SMALLER LRMP PROGRAM WHILE PLACING THE LAV PROGRAM AT RISK.
- A UNITED GM-FMC EFFORT HAS GREATER CHANCE OF SUCCESS THAN A HEAD TO HEAD COMPETITION ON LRMP. COMPETING FOR LRMP COULD WEAKEN OUR CHANCES OF A SUCCESSFUL TEAMING ON LAV AND PREVENTS GETTING A COMPETITIVE PRODUCT INTO PRODUCTION EARLY.
- AN UNSOLICITED PROPOSAL FROM FMC FOR LRMP WILL DOCUMENT THE SIZE OF THE PREMIUM BEING PAID FOR THE GM PRODUCT AND COULD STALL OR PREVENT A FAVORABLE DECISION FOR GM. THE GOVERNMENT COULD PRESSURE GM TO COOPERATE WITH FMC BUT WE PREFER A VOLUNTARY MARRIAGE RATHER THAN A "SHOTGUN" WEDDING.
- WE PLAN TO SUBMIT OUR UNSOLICITED PROPOSAL TO DND AS SOON AS POSSIBLE.

Copy

Not too Dep. file. /
Mr. [redacted] of Ch. content not clear.
→ ↓
Index benefits
Link to G. Nichols.

MEMORANDUM OF UNDERSTANDING (MOU)
dated February 14th, 1989 between
FMC Corporation, Santa Clara, California
and
Ebco Industries Ltd., Richmond, B. C., Canada
for the
Manufacture of Light Armoured Vehicles (LAV)

The purpose of this MOU is to define the intent of the parties regarding potential opportunities for Ebco relating to the manufacture of LAV's or their components for FMC. It is contemplated that the Canadian Department of National Defence will procure light armoured vehicles for two separate programs LRMP (Land Reserve Modernization Project) and LAV, with the LRMP contract procurement for 200 vehicles anticipated 1989. The LAV contract procurement for approximately 1,700 LAV's is anticipated in 1993.

As of the date of execution of this MOU both FMC and Ebco agree to use their best efforts to successfully obtain both of these contracts, including working together in Canadian political and bureaucratic circles in promoting the FMC LAV.

In order to maximize the mutual benefit of this endeavour to both parties FMC agrees, subject to reasonable considerations of price, quality, and delivery to diligently strive to ensure that Ebco obtains manufacturing contracts for a targeted value of approximately 100 million dollars, based upon the quantities specified above. Accordingly FMC agrees to provide material lists, manufacturing procedures, specifications, etc., in order to enable Ebco to provide meaningful and competitive pricing.

In return for these considerations Ebco agrees to work exclusively with FMC during the term of this MOU and agrees not to participate either individually or together with any other competitor of FMC for the purpose of obtaining either LAV contract with the Department of National Defence or obtaining any resultant manufacturing benefit.

Both parties agree to treat and maintain all information hereinafter disclosed between the parties with the strictest of confidence and both agree not to disclose or release it to any other party whatsoever except in accordance with the intent of this MOU.

..../2

MEMORANDUM OF UNDERSTANDING
dated February 14, 1989 between
FMC Corporation, Santa Clara, California
and
Ebco Industries Ltd., Richmond, B.C., Canada
for the
Manufacture of Light Armoured Vehicles (LAV)

- PAGE TWO -

In the eventuality that FMC is successful in obtaining the LAV procurement contract, the term of this MOU shall in accordance with the following extend until the completion date of all subsequent LAV manufacturing agreements entered into between the parties.

In the eventuality that FMC is not awarded the LAV procurement contract, this MOU shall terminate.

Signed



FMC Corporation
Santa Clara, California
U.S.A.



Helmut Eppich
Chairman and C.E.O.
Ebco Industries Ltd.
Richmond, B.C.
Canada

FMC MESSAGE TO GOVERNMENT OF CANADA:

- IN LATE SEPTEMBER, ASSOCIATE MINISTER OF NATIONAL DEFENSE, PAUL DICK, REQUESTED FMC WORK WITH GM OF CANADA TO WORK OUT A LICENSE AGREEMENT TO PRODUCE M113 VEHICLES IN GM'S LONDON, ONTARIO PRODUCTION FACILITY FOR LRMP PROGRAM.
- FMC MET WITH GM IN LONDON IN LATE OCTOBER. GM INDICATED NO REAL INTEREST IN SUCH AN ARRANGEMENT.
- FMC HAS CONTINUED TO INVESTIGATE THE FEASIBILITY OF TEAMING WITH GM FOR THE LRMP REQUIREMENT. WE HAVE RECENTLY CONCLUDED SUCH AN AGREEMENT WITH GM IS FEASIBLE AND WOULD BE IN THE GOVERNMENT'S BEST INTERESTS.
- OUR ANALYSIS OF SUCH A PRODUCTION ARRANGEMENT INDICATES THAT IT WOULD BE APPROXIMATELY \$30M TO \$40M CHEAPER TO PRODUCE THE M113 VEHICLES IN THE GM FACILITY THAN TO BUY THE GM 8x8 WHEELED PRODUCT.
- ADDITIONAL SAVINGS WOULD ACCRUE TO THE GOVERNMENT BY BUYING A FIELDIED PRODUCT, ALREADY IN THE CANADIAN FORCES INVENTORY. *2x profit - 8 cost (Quantity - this) for 611*

FMC MESSAGE TO GOVERNMENT OF CANADA - CONTINUED

- IF THE GM 8x8 WHEELED SYSTEM IS PURCHASED THERE WILL BE AN ADDITIONAL COST TO FIELD THE PRODUCT; SPARE PARTS, MANUALS, TRAINING, ETC. *12,000,000*
- ALTHOUGH SOME CRITICS HAVE IMPLIED THERE IS A GREAT SAVINGS IN LIFE CYCLE COSTS FOR WHEELED VEHICLES VERSUS TRACKED VEHICLES, U.S. GOVERNMENT STUDIES HAVE SHOWN THE DIFFERENCES FOR 200 VEHICLES OVER A 20 YEAR PERIOD TO BE ONLY \$4M TO \$5M LESS FOR WHEELS. THIS SMALL DIFFERENCE DOES NOT JUSTIFY SIGNIFICANT DIFFERENCES IN CAPITAL PURCHASE COSTS.
- WE HAVE INITIATED DISCUSSIONS WITH GM AND
 - A. WE ARE MAKING SATISFACTORY PROGRESS
 - OR
 - B. WE HAVE BEEN UNABLE TO GAIN GM'S COOPERATION.

WE ARE REQUESTING THE SUPPORT OF THE GOVERNMENT TO SUCCESSFULLY CONCLUDE AN AGREEMENT SATISFACTORY TO ALL PARTIES.

89-1449

FMC

AIDE-MÉMOIRE

FOR CS

PMO	SECTION
18 1989	
FILE TO FILE NO: 32465-700-008	
OR	
DISCARD	

SUBJECT: FMC Corporation's 13 Feb 89 letter on the premium for General Motors product M113s.

DISCUSSION

1. The subject letter indicates a premium of \$16-20M for GM to produce M113s.
2. The following points are pertinent:
 - a. this premium is consistent with the \$10-20M range indicated in FMC's 19 Jan 89 letter to MND;
 - b. however, it is inconsistent with the up to 40 percent premium for Canadian production (excluding facilitization, capital equipment and shut down) indicated in FMC's 29 Jul 88 response to a formal price and availability inquiry. Forty percent translates into a \$30M premium;
 - c. while it is consistent with GM's appreciation of the special tooling, fixtures and capital equipment, it does not include the costs that GM would incur either to:
 - (1) build a 150,000 square foot extension to accommodate M113 production, or
 - (2) remove existing tooling, fixtures and capital equipment, store it and subsequently reinstall it for wheeled vehicle production.
3. GM would probably build an extension rather than convert existing facilities. Because plant conversion would take up to two years, it would prevent the company from production, commencing in 1991, for anticipated export sales.
4. In the case of either plant extension or conversion, the costs are likely to be several millions of dollars. Extension would cost about \$15M, a Class C estimate based on DCEC cost factors for construction of heavy industrial facilities. Therefore, a \$30M premium is probably much closer to reality.

.../2

- 2 -

CONCLUSION

5. Because a \$30M premium vice (\$16-20M) is realistic, the previously prepared aide-mémoire on FMC's proposal for GM production of M113s does not require amendment.

Responsible Director: S.A. McCormack, Colonel, DPSL,
994-9416

Prepared By: P. Verney, DPSL 2, 994-9435

Date Prepared: Feb 89



CHIEF OF SUPPLY

CHEF DE L'APPROVISIONNEMENT

08 Feb 89

③ Distribution List

1. As I mentioned, I had a long-planned courtesy call from FMC this afternoon.

2. We should discuss at your convenience, but the only substantive point was that they offered to provide information on the derivation of the '\$10-20M premium' quoted in their letter. We can expect it by middle of next week.

DISTRIBUTION LIST

Action

Info

→ CEM *[Handwritten signature]*

DG Proc S
DPSL
DPSL/P. Verney

④ *[Handwritten signature]*
DGLB
P.M. McLELLAN

ORIGINAL SIGNED BY
R. D. GILLESPIE, CS

[Handwritten notes:]
I'm going to see
Shawcross over -
next to this -
Cheryl they are and
I'll go
and see them
know it

R.D. Gillespie
992-6523

[Handwritten signature] 17/2

78147
000955

CS/DGSPDI OR 89-1822

FMC Corporation

Defense Systems International Division
881 Martin Avenue Box 58123
Santa Clara California 95052
408 289-0111

File No _____

Date 14 Feb 89

PA to NDRMS

OR file required

February 13, 1989

Mr. R.D. Gillespie
Chief of Supply
Department of National Defence
101 Colonel By Drive
Ottawa, Ontario, Canada K1A 0K2

INFO DGSPDI
As discussed. The info for what it is worth. We should get a quick answer on whether or not this is consistent with other info
FMC
ORIGINAL SIGNED BY R. D. GILLESPIE, CS 15.2.89

Dear Rob:

Thanks very much for taking time from your very busy schedule to meet with Bob Schwartz and me on Wednesday of last week. We especially appreciated your willingness to rearrange your schedule at the last minute to ensure your availability to meet with us.

As mentioned during our meeting, FMC is committed to preserving jobs in the GM of Canada London, Ontario facility. In addition, the LRMP order would provide work for our other Canadian industrial partners such as Atlantic Defense Industries, Ltd., Nova Scotia, Industrial Rubber, New Brunswick, Volk Precision Industries, Alberta, and EBCO Industries, British Columbia.

Per your request during the meeting, we are enclosing more detail of the C\$10-20M additional costs which would be incurred to produce M113 vehicles in GM of Canada's production facility, compared with producing them in San Jose. Obviously we can better refine the estimate in cooperative discussions with GM of Canada and solicit the assistance of DND to gain GM's cooperation.

Should you require additional assistance from FMC, please do not hesitate to ask.

Sincerely,

Dave Doyle

David E. Doyle
Director
International Business

DED/cal

enclosure

PMO TANK SECTION
FEB 22 1988
P.A. TO FILE 52460700-008 OR
DISCARD

ADDITIONAL COSTS TO PRODUCE 213 M113 VEHICLES
IN GM-CANADA PRODUCTION FACILITY:

	<u>C\$</u>
SPECIAL TOOLING AND FIXTURES TO MANUFACTURE M113 VEHICLES (HULL FABRICATION, MAJOR SUB- ASSEMBLIES, ASSEMBLY & TEST)	4M-5M
ADDITIONAL CAPITAL EQUIPMENT TO AUGMENT EXISTING GM CAPABILITY (SUCH AS WELDING EQUIPMENT, AIR TOOLS, DIP TANKS, INSPECTION EQUIPMENT, ETC.)	7M-8M
LABOR PREMIUM AT GM-CANADA FACILITY (LEARNING CURVE, LOW PRODUCTION RATE, TECHNOLOGY TRANSFER, ETC.)	5M-7M
	<hr/> 16M-20M

THIS RANGE COULD BE REDUCED AS WE BETTER UNDERSTAND THE
GM-CANADA FACILITY AND THEIR EXISTING TOOLING AND CAPITAL
EQUIPMENT THAT COULD BE USED FOR THE M113.

CHIEF OF ENGINEERING AND MAINTENANCE
CHEF - GÉNIE ET MAINTENANCE

②

DGLEM

Noted. I understand CS
has provided direction to his
staff to review and re-organize
this BU. Pse provide
assistance / input as required. I
should sign off the final
documentation on its way to
DSS via CS.

③

PM Militia LAV

D/R

In action sup

JA

DGLEM

10 Feb 89

D.R. Boyle
RAdm

77958

000958



CONF

Director General Land Engineering and Maintenance
National Defence Headquarters
Ottawa, Ontario

CEM *noted.*

1. This is the response to the UP from FMC on making M113A2 vels with GMDD to meet our militia LAV reqts. It was prepared jointly by Mr Verney of DPSL and the PMO.

2. Note that para 8 suggests the crossover point for the GM LAV is 15 years. If the FMC vels are made in Canada, costs go up and the crossover point occurs in favour of the GM LAV after only 4 years.

1 Feb 89

JM
Dorem

997-9474 000959

CONFIDENTIAL

MEMORANDUM

3136-5-2207 (DPSL)

30 Jan 89

CS
CHA
INTD

ORIGINAL SIGNED BY
R. B. GILLESPIE, CS
31.1.89

PMO
SECTION
18 1989
EA TO FILE NO. 32460-100-008
OR
DISCARD <input type="checkbox"/>

MILITIA LIGHT ARMOUR
VEHICLE PROJECT

Refs: A. FMC Corporation Letter, 19 Jan 89
B. Minute 2 to Ref A

1. Enclosed is a briefing note in response to Ref B.
2. The briefing note recommends rejection of the latest FMC Corporation proposal to meet the requirements of the subject project. The recommendation is based on consideration of the following factors: defence industrial base, industrial and regional benefits, life cycle costs, and time delay.
3. As per Ref B, the briefing note has been reviewed by and agreed to by PM Tank.

O.S.B
R.N. Sturgeon
DG Proc S
994-8905

Enclosure: 1

(2) DCLM
I support this although I
have some worries about the
our ability to sell it. The
hammer I think it will
help CS. Still has some
action and has sent it
back for re-organization of
presentation. Please
on it.

CS

(3)
PM Militia LAR
To note Ms + PA
10 Feb 89
JAA
Down

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77945

CONFIDENTIAL

BRIEFING NOTE

FOR CS

SUBJECT: FMC Corporation Letter to MND, 19 Jan 89 (Flag A)

ISSUE: Whether to pursue FMC Corporation's proposal for production of M113s at GM facilities through a teaming arrangement.

BACKGROUND

1. Operational Requirement. On 25 Jan 89, PD ASI and PD Militia LAV reconfirmed that wheeled LAVs and tracked M113s, meet the Militia Training and Support Centre requirement. The operational requirement, therefore, should not be a factor in assessing the FMC proposal in the subject letter.

DISCUSSION

2. Defence Industrial Base. The FMC Corporation proposal for production of "M113 vehicles in the facilities of GM of Canada Ltd." could make some contribution to the maintenance of the defence industrial base. However, as pointed out in para 32 b(4) of the departmental working paper, reconfiguring GM's Diesel Division plant would entail a production delay and lay-off of approximately 150 persons for six to eight months. This situation is primarily due to the time required to convert from steel to aluminum welding. The delay could be several months longer if FMC did not provide the production tooling and GM had to procure it. The subject letter does not deal with this point. Also, there would be a subsequent plant reconfiguration so that GM could revert to production of LAVs for future orders. GM's ability to meet the delivery requirements of these orders could therefore be compromised (see paras 9 and 10 below).

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- 2 -

3. Industrial and Regional Benefits. The following points suggest that the industrial and regional benefits in an FMC proposal would likely be less than those for the production of wheeled LAVs at GMDD:

a. in the 22 Jun 88 request for P&A information from FMC Corporation (Flag B), DSS provided extensive industrial and regional benefits questionnaires. FMC Corporation did not complete them and in its response (Flag C):

- (1) recommended production at its San José, California, facility as the most economical approach;
- (2) indicated it would provide "offset purchases of goods or services", and
- (3) in general terms stated "a co-production program" was possible; and

b. in the subject letter, FMC Corporation does not indicate the nature and extent of industrial and regional benefits. Producing at GM facilities could mean anything from assembly and test to GM manufacture of or subcontracting for components as well as assembly and test.

4. Capital Cost. In general, it is difficult to equate the capital cost figures in the subject letter with those for the GM LAVs. FMC Corporation bases its figures on 213 vice 221 vehicles and on different quantities of variants.

5. However, the following points are pertinent:

a. 221 M113 vehicles produced in San José, California, are projected to cost approximately \$64M U.S. (\$88/89) or \$76M Cdn;

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- 3 -

- b. 199 GM LAVs and 22 M113s as currently proposed would cost approximately \$115M Cdn (\$88/89);
- c. therefore, the premium for our current approach is \$39M in relation to production of M113s in the U.S. and not \$50M as claimed by FMC Corporation;
- d. if an FMC/GM teaming arrangement resulted in vehicles at "a cost of only \$10 to \$20M over the U.S. production price", the savings would be \$29M at best;
- e. in its response to the P&A inquiry, FMC Corporation indicated that the premium for Canadian production would be between 15 and 40 percent (presumably dependent on the amount of Canadian industrial involvement), i.e. 221 M113 vehicles would cost between \$87M and \$106M; and
- f. based on sub-para e above, the savings for buying 221 M113s vice 199 GM LAVs plus 22 M113s would be only \$9-28M.

6. Recurring Costs. Wheeled vehicles are generally cheaper to operate and maintain than tracked vehicles. GM claims that O&M costs for their wheeled vehicles are only one-ninth those for the tracked M113s. Over a 20 year period, O&M costs for GM LAVs would be approximately 45 percent of those for M113s. Based on 2,000 km per vehicle per year, and 221 vehicles the following figures pertain:

(\$88/89)

	<u>20-Year O&M Costs</u>	<u>Remarks</u>
- 221 M113s	112M	
- 199 GM LAVs		
+ 22 M113s	50M	i.e. 45% of \$112M

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- 4 -

7. Cost of Ownership over 20 Years. The following summarizes paras 5 and 6:

(\$M 88/89)

	<u>Capital</u>	<u>Recurring</u>	<u>of Ownership</u>
	20 Year Cost		
- 221 M113s produced in San José, California	76	112	188
- 221 M113s produced in Canada			
(1) per subject letter	87-96	112	199-208
(2) per FMC Corp. response to P&A Inquiry	87-106	112	199-218
- 199 GM LAVs + 22 M113s	115	50	165

8. These figures indicate that, GM LAVs are cheaper to own. In fact, 15 years is the approximate crossover point at which the life cycle costs for M113s would exceed those for LAVs.

9. Time Delay. To pursue the FMC Corporation proposal for a "teaming arrangement" with GM would delay the Militia LAV Project in four respects:

- a. assuming worthwhile discussions commence in Feb 89 between the two companies, at least two months would be required for them to produce a proposal;
- b. if the proposal were suitable in all respects (including defence industrial base and industrial and regional benefits), then about three more months would be required to revise the departmental working paper, re-convene the ISRB, and obtain the necessary DND approvals;

.../5

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- 5 -

- c. a month would be necessary to review and negotiate the proposal; and
- d. as indicated in para 2 above, GM would need at least six to eight months to convert to M113 production.

10. The result of pursuing the FMC proposal would be a six month delay in contract award (i.e. Sep 89 vice Mar 89) and at least a one year delay in delivery (initial delivery in Apr 91 vice Apr 90 and final delivery in Dec 92 vice Dec 91). This delay into 1992 could disrupt GM production for prospective USAF, USMC and Saudi Arabian orders.

CONCLUSION

11. Based on the limited information available, the FMC proposal in the subject letter is not advantageous. In relation to the currently proposed approach, it will probably not improve on the anticipated defence industrial and regional benefits. On a life cycle cost basis, it is relatively more expensive (20 percent). Finally, pursuing the proposal would result in delaying implementation and delivery by one year.

RECOMMENDATION

12. Without significant changes in the factors such as a clear operational preference, there is nothing to be gained by entertaining the FMC proposal further. It is recommended that the FMC Corporation proposal in the subject letter be rejected.

Responsible Director: S.A. McCormack, Col, DPSL, 994-9416

Prepared by: P. Verney, DPSL 2, 994-9435

Date Prepared: 26 Jan 89

CONFIDENTIAL

File No

Date

24.1.89

PA to NDRMS

ORIGINAL SIGNED BY
R. D. GILLESPIE, CS
24.1.89

The Honorable Perrin Beatty, P.C., M.P.
Minister of National Defence
101 Colonel By Drive
Ottawa, Ontario
Canada K1A 0K2

Dear Minister Beatty:

It is our understanding that your department is currently giving priority consideration to the purchase of armored personnel carriers for the Land Reserve Modernization Project (LRMP). We understand the government is also considering the purchase of 8x8 wheeled vehicles from GM of Canada, London, Ontario. The purpose of this letter is to propose an alternate procurement plan that will enable the DND to fill the LRMP requirement with the currently fielded M113, produced in Canada, at a savings to the Government of approximately \$30M to \$40M Canadian.

FMC's 29 July 1988 submittal of price and availability information for the LRMP Project quoted a price of approximately \$72M Canadian for the entire requirement of 213 M113 vehicles produced in our San Jose, California facility. Based upon information publicly available from U.S. sources concerning U.S. Government procurement of the GM of Canada 8x8 wheeled product, we estimate the GM price for 213 vehicles to be approximately \$122M. This is a premium of \$50M.

We recognize that the Government of Canada desires to maintain a defense production capability and to procure products from Canadian sources when possible. However, we feel that FMC can fully satisfy the LRMP requirement from both a product and production perspective at a premium that is far less than that being contemplated by the GM solution.

Handwritten notes:
① CET.
Advance copy.
with preliminary review.
EXPRESS
DND/DSC and
with AF/TASK (W)
to review comments
on AF/CET and
shall be prepared to
respond to general terms
at least by end of the
week.

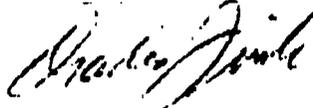
ORIGINAL SIGNED BY
R. D. GILLESPIE, CS
24.1.89

As we have stated in previous letters to you, FMC is firmly committed to supplying the Canadian Forces' armored vehicle requirements from a Canadian production base. As further evidence of this commitment, FMC is prepared to produce the 213 M113 vehicles for the LRMP project in the facilities of GM of Canada, Ltd., under a teaming agreement with GM. We estimate this could be done at a cost of only \$10M to \$20M over the U.S. production price, resulting in the previously mentioned savings to the Government of \$30M to \$40M over the GM wheeled product price.

Although we believe the benefits of the above proposal to the Government are substantial, we have been unable to gain the support of GM of Canada. Discussions are continuing in this regard. We believe it is in the best interest of all parties to implement a joint proposal and ask for your personal support of this initiative.

I would welcome the opportunity to review FMC's proposal with you. We will be contacting your office to arrange such a meeting at your earliest convenience.

Yours truly,



Charles Fink

sp

Supply and Services Canada
Department of National Defence
Systems Directorate
11 Laurier Street
Place du Portage, Phase III, 801
Hull, Quebec
K1A 0S5

Votre référence

Our file / Notre référence

25BL 39-5258

June 22, 1988

FMC Corporation
Defence Systems International Division
881 Martin Avenue, Box 58123
Santa Clara, California
95052

Attention: A.J. La Porte

REFERENCE: Land Reserve Modernization Project
SUBJECT: Price and Availability

Dear Sir,

Further to our preliminary discussions and communications in March and April 1988, the Crown wishes to advise you of the following.

Supply and Services Canada has now been officially requested by the Department of National Defence to obtain price and availability information in support of the referenced project. A contending vehicle for the planned requirement is the M113 APC. Quantities and configurations of M113 vehicles envisaged to be needed for provision of Militia training are attached, however the total requirement is subject to availability of funding and may be as low as one hundred and fifty (150) total vehicles. Note that the configuration of the second vehicle is for TOW under armour and deliveries are now projected from 1990.

The Crown wishes to obtain maximum benefits for Canada as a whole and for the Department of National Defence specifically from the outlays for this project.

Canada is committed to a Canadian industrial defence base which will support all of its defence systems in-country in the event of war. Accordingly the Crown will attach great importance to obtaining industrial involvement with long term benefits to Canada.

.../2

It is also recognized that economic disparities exist within Canada and therefore attention will be paid to regional participation in any industrial involvement. In addition, the Crown is presently studying initiatives to encourage small business to participate as subcontractors in larger programs.

An Annex similar to the attached Annex E covering Industrial Benefits will form part of the Request for Proposal if the Project and the procurement are authorized to proceed.

The following Price and Availability information is therefore required for planning, budgeting and value analysis purposes:

- 1) Unit prices and delivery for supply of all equipment F.O.B. San Jose, California, without any industrial offsets. All taxes and duties included in the prices must be identified by name and amount.
- 2) Unit Prices and delivery for the supply of all equipment F.O.B. San Jose, California on a contract requiring Industrial Benefits to Canada in the form of Offset Purchases of goods or services to the value of 75% or more of the total purchase price payable by Her Majesty to the Contractor. All taxes and duties included in the prices must be identified by name and amount.
- 3) Unit Prices and delivery for the supply of the equipment on a contract requiring co-production of the vehicles or a substantial amount of the manufacture of the base vehicles to be performed in Canada.
- 4) With respect to 3 above, you are requested to estimate and identify any premium in your prices attributable to work performance in a designated region, viz a viz any location in Canada considered by FMC to be more cost effective.

You are also requested to identify and describe any agreements or other arrangements you may have in place with Canadian companies such as ADIL or any others for participation in M113 manufacture or similar work.

Your response should be submitted in four copies to:

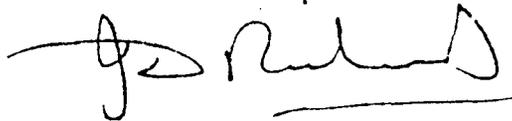
Mr. J.D. Richards
Department of Supply and Services
Aerospace, Marine & Electronics
Systems Directorate
11 Laurier Street
Place du Portage, Phase III, 8C1
Hull, Quebec
K1A 0S5

on or before August 1, 1988.

This price and availability enquiry is not a Request for Proposal or Call for Tender and the Crown is not obliged to accept any proposal received in response hereto.

Nothing in this P&A is to be construed as directing the respondent to enter into any work thereby accruing financial liability or other indebtedness to the Crown. The cost associated with any effort expended or committed by the respondent in preparing, submitting or substantiating replies is to be borne by the respondent.

Yours truly,

A handwritten signature in black ink, appearing to read 'J.D. Richards', with a horizontal line underneath the name.

J.D. Richards
Engineering Procurement Officer
BL Section
(819) 956-0205

ANNEX A

PLANNED REQUIREMENTS FOR M113 ARMoured PERSONNEL CARRIERS
FOV WITHIN MILITIA TRAINING AND SUPPORT CENTRES

<u>BCC</u>	<u>VEHICLE DESCRIPTION</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>TOTAL</u>
114131	Troop Carrier	33	35	35	35	138
114253	TOW Under Armor Anti Tank	2	2	2	2	8
114247	Troop Carrier W/Dozer Blade	1	1	1	1	4
114248	Troop Carrier W/Dozer Blade & Hyd PTO	4	4	4	4	16
114802	Armored Recovery Vehicle Light	3	3	3	3	12
114202	Fitter	2	3	3	3	11
114128	Command Post M577	1	2	2	3	8
114140	Cargo Carrier M548	4	4	4	4	16
	<u>TOTAL</u>	<u>50</u>	<u>54</u>	<u>54</u>	<u>55</u>	<u>213</u>

ANNEX E - INDUSTRIAL BENEFITS (IB'S)

E1.0 GENERAL INFORMATION

- E1.1 It is the intent of Canada to obtain Industrial Benefits from this purchase. Accordingly, in considering proposals for this program, the Crown will attach great importance to Canadian industrial involvement which will have long-term economic benefits to Canada. Attention will also be paid to regional participation.
- E1.2 Responses should place emphasis on a mix of technology enhancement and manufacturing opportunities which will contribute to the long-term viability of Canadian companies and improve their ability to compete in both domestic and international markets.
- E1.3 It is expected that the preparation of the Industrial Benefits response will require investigation, discussion and negotiation between foreign and Canadian companies. The Department of Regional Industrial Expansion (DRIE Manager-LRMP) is prepared to assist in establishing company-to-company links aimed at maximizing Industrial Benefits for Canada.
- E1.4 It is also recommended that bidders discuss with the DRIE Manager-LRMP any proposed Industrial Benefits which involve the export of defence and defence-related material to third countries, in order to ensure that such exports are consistent with Canadian Government policy.

E2.0 SCOPE

- E2.1 GENERAL This section outlines the Crown's approach to optimization of long-term industrial benefits.
- E2.2 PURPOSE The purpose of this section is to obtain an IB proposal and options which is to address but not be limited to the following noted activities as described in appendices*:
- a. industrial benefits proposal summary
 - Direct Transaction
 - b. in-vehicle Canadian content
 - c. offset purchases
 - d. new investments and joint ventures
 - e. transfer of technology
 - f. other economic opportunities
 - g. regional participation
 - h. managing industrial benefits

*NOTE

See also Guidelines - Industrial Benefits (IBs) attached

E2.3 INTENDED USE The response will be examined to:

- a. assess the respondents long term business plans as applicable to Canada's LRMP project;
- b. evaluate the IB proposals and options; and
- c. assess the risk and the respondent's ability to implement the proposed IB's.

E2.4 APPROACH A response is required describing as a minimum the respondents approach to Canada's LRMP project and the respondents long term business plans. The intent is to obtain as much information as possible as pertinent to the proposal and the various IB options. If applicable, the cost and support data for the IB's and each option should be included in appendix H, Managing Industrial Benefits.

E3.0 CATEGORIES OF INDUSTRIAL BENEFITS

E3.1 General Since Canada is procuring defence equipment incorporating state of the art technology, the benefits should be of at least equal technology. It is desirable that the Industrial Benefits will accrue generally to the high technology segments of Canada's commercial and defence-related industry sectors.

E3.2 The options and activities described in this Annex E - Industrial Benefits, are not prioritized, nor are the options and activities limited to those described in the appendices B to G. In addition, guidelines are provided to assist respondents in developing a response.

Attachments

Appendices A to H
Guidelines - Industrial Benefits (IBs)

APPENDIX A

INDUSTRIAL BENEFITS

PROPOSAL SUMMARY

COMPANY: _____

	\$ CDN CONTENT	\$ FOREIGN CONTENT	\$ TOTAL VALUE
<u>DIRECT TRANSACTION</u>			
1. APPENDIX B IN-VEHICLE CONTENT			

<u>INDIRECT TRANSACTIONS</u>			
2. APPENDIX C OFFSET PURCHASES			

3. APPENDIX D NEW INVESTMENTS AND JOINT VENTURES			

4. APPENDIX E TRANSFER OF TECHNOLOGY			

5. APPENDIX F OTHER ECONOMIC OPPORTUNITIES			

6. TOTAL VALUE	\$		

APPENDIX B

DIRECT TRANSACTION
IN-VEHICLE CDN CONTENT
(250 UNITS)

COMPANY: _____ YES NO

1. IS THIS A JOINT VENTURE WITH CDN/FOREIGN FIRMS

2. IF YES DESCRIBE: _____

3. PROPOSED IN-VEHICLE CDN CONTENT

4. IF YES** CHECK FOLLOWING:

a. PARTS AND COMPONENTS

b. SUB ASSEMBLIES

c. ASSEMBLIES

d. SYSTEM INTEERATION

e. TDP, MANUALS, TRAINING, TRAINING AIDS, OTHER

5. DESCRIPTION AND VALUE OF ITEMS a TO e: _____

6. DESCRIPTION AND VALUE OF FOREIGN CONTENT: _____

7. TOTAL CDN CONTENT* \$ _____
TOTAL FOREIGN CONTENT \$ _____

4. TOTAL SYSTEM COST \$ _____

*CDN CONTENT PER DSS FORM 9260
**PLEASE PROVIDE TEN YEAR BUSINESS PLAN

APPENDIX C

INDIRECT TRANSACTIONS

OFFSET PURCHASES

COMPANY: _____

(CHECK 1. OR 2. FOLLOWING)

- | | YES | NO |
|--|--------------------------|--------------------------|
| 1. OFFSET PURCHASE PROJECT RELATED | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. OFFSET PURCHASE NOT PROJECT RELATED | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. IF YES DESCRIBE PARTS, COMPONENTS, GOODS
AND VALUES INVOLVED: _____

_____ | | |
| 4. POSSIBLE SUPPLIERS: _____ | | |
| 5. TOTAL CDN CONTENT* | \$ | _____ |
| TOTAL FOREIGN CONTENT | \$ | _____ |
| 6. TOTAL VALUE | \$ | _____ |

*CDN CONTENT PER DSS FORM 9260

APPENDIX D

INDIRECT TRANSACTION
NEW INVESTMENTS AND JOINT VENTURES

COMPANY: _____

(CHECK 1 AND 2 FOLLOWING)

- | | YES | NO |
|---|--------------------------|--------------------------|
| 1. NEW INVESTMENT | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. JOINT VENTURE | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. IF YES DESCRIBE GOODS AND SERVICES INVOLVED: _____ | | |
| _____ | | |
| _____ | | |
| 4. NAME AND ADDRESS OF INVESTMENT: _____ | | |
| _____ | | |
| _____ | | |
| 5. NAME AND ADDRESS OF JV PARTNER: _____ | | |
| _____ | | |
| 6. TOTAL CDN CONTENT* | \$ | |
| TOTAL FOREIGN CONTENT | \$ | _____ |
| 7. TOTAL VALUE | \$ | |

*CDN CONTENT PER DSS FORM 9260

APPENDIX E

INDIRECT TRANSACTION
TRANSFER OF TECHNOLOGY

COMPANY: _____

YES NO

1. TRANSFER OF TECHNOLOGY, IF YES DESCRIBE
2. NAME AND ADDRESS OF PROPOSER: _____

3. NAME AND ADDRESS OF CDN RECIPIENT: _____

4. PROPOSAL SUMMARY: _____

5. PROPOSER'S PORTION: _____

6. RECIPIENTS PORTION: _____

7. TOTAL CDN CONTENT* \$ _____
TOTAL FOREIGN CONTENT \$ _____

8. TOTAL VALUE \$ _____

*CDN CONTENT PER DSS FORM 9260

APPENDIX F

INDIRECT TRANSACTION
OTHER ECONOMIC OPPORTUNITIES

COMPANY: _____

YES NO

1. OTHER ECONOMIC OPPORTUNITIES

2. IF YES DESCRIBE TRANSACTION(s) AND VALUE: _____

3. TOTAL CDN CONTENT* \$
TOTAL FOREIGN CONTENT \$ _____

4. TOTAL VALUE \$

*CDN CONTENT PER DSS FORM 9260

APPENDIX G

DIRECT AND INDIRECT TRANSACTIONS

REGIONAL PARTICIPATION

COMPANY: _____

<u>REGIONS / DESCRIPTIONS OF MAJOR TRANSACTION(S)</u>	<u>\$ CDN CONTENT</u>	<u>\$ FOREIGN CONTENT</u>	<u>\$ TOTAL VALUE</u>
1. ATLANTIC CANADA			
2. QUEBEC			
3. ONTARIO			
4. WESTERN CANADA			
5. NOT ALLOCATED			
6. TOTAL VALUE	\$		

APPENDIX H

INDUSTRIAL BENEFITS

MANAGING INDUSTRIAL BENEFITS

COMPANY: _____

YES NO

1. IS CDN GOVERNMENT (FINANCIAL) SUPPORT
REQUIRED TO IMPLEMENT DIRECT AND INDIRECT
IB TRANSACTIONS.

2. IF YES DESCRIBE ACTIVITIES AND VALUES INVOLVED:

3. APPENDIX B
IN-VEHICLE CONTENT

4. APPENDIX C
OFFSET PURCHASES

5. APPENDIX D
NEW INVESTMENTS & JOINT VENTURES

6. APPENDIX E
TRANSFER OF TECHNOLOGY

7. APPENDIX F
OTHER ECONOMIC OPPORTUNITIES

8. OTHER ACTIVITIES AND THEIR VALUE SUCH AS SHARED R & D, ROYALTIES AND
LICENSING FEES, UPGRADING OF EXISTING FACILITIES, TRAINING OF LABOUR
FORCE AND REGIONAL ASPECTS: _____

9. IF APPLICABLE, TOTAL VALUE OF MANAGING IBS \$ _____

GUIDELINES

INDUSTRIAL BENEFITS

IBs

GUIDELINES

INDUSTRIAL BENEFITS (IBs)

Definitions

Industrial Benefits (IB) Authority is defined as the authority responsible for evaluating, monitoring and accepting IB's and any substitutions from those originally proposed and for assessing the performance with respect to the contractor's industrial benefits obligations under the resultant contract. However, the contracting authority is responsible for notifying the bidder on all contractual matters relating to IB's.

The Minister of the Department of Regional Industrial Expansion, or his duly authorized representative, the DRIE Manager Vehicle Projects, is for all purposes designated as the industrial benefits authority with reference to all aspects of the vehicle projects.

Canadian Content - for definition of Canadian content see National Standard of Canada (CAN 2-147.3-82) by the Canadian General Standards Board in Ottawa, Ontario (copy attached).

Industrial Benefits (IB) Offsets are transactions which are determined by the industrial benefit authority to have all of the characteristics set forth in the eligibility criteria section which follows.

Shortfall means that amount expressed in dollars by which the amount of eligible IB transactions credited during a period is less than the amount of eligible IB transactions committed to in the resultant contract.

If the contractor fails to meet the IB commitments, the Government of Canada will be entitled to liquidated damages. In no event shall the aggregate amount of the liquidated damages be less than ten percent (10%) of the contract price of the contract.

Small Business is defined as any company employing 100 employees or less in the manufacturing sector or less than 50 employees in the services sector.

Regions of Canada are defined as:

- a) Atlantic Canada (4 Provinces)
- b) Quebec
- c) Ontario
- d) Western Canada (4 Provinces)

Eligibility Criteria

To qualify as an industrial benefit offset, a transaction must meet the following criteria:

- a. It must be one which was clearly and demonstrably brought about by the bidder's or another eligible party's efforts

- 2 -

and must be one which would not have been entered into without those efforts. Furthermore, it must not be one which probably would have been entered into if the proposed project had not existed.

- b. It must be implemented after issue of the RFP and must be completed over the period of the contract. A grace period may be negotiated separately.
- c. In the case of an offset purchase of goods, the goods must be fully manufactured goods as identified by Canada's Standard Industrial Classification Manual, Division E-Manufacturing, Major Group 15 to Major Group 39 inclusive, with the exception of Major Groups 25, 27, 36 and 37 (copy attached).
- d. The extent to which the purchase qualifies will depend on the amount of Canadian content in the proposed transaction. If the Canadian (value added) content is less than 60 per cent of the total content in the proposed transaction, then the purchase will not qualify at all; if the Canadian (value added) content is greater than 60 per cent in the proposed transaction, then the value of the actual Canadian content will qualify.
- e. In the case of an investment or Joint Venture, the investment or Joint Venture must be:
 - (1) one which is in a facility or project which fosters the development of advanced industrial technology and manufacture, and
 - (2) minimize excess capacity and plant closure(s) and satisfy long term regional development and participation, and
 - (3) one which will qualify to such extent and such amount as is agreed upon in each case by the IB authority and the bidder. If the parties fail to agree after negotiating in good faith, then the decision of the IB authority shall be final.
- f. In the case of a transaction involving an industrial benefit credit for technology transfer, the following criteria for eligibility shall apply:
 - (1) technology must be current and proprietary in nature. State-of-the-art technology is preferred;
 - (2) transferror must have available all information (drawings, methods of application, etc.) related to the technology transferred;

- 3 -

- (3) transferror must make available engineering and technical advice and assistance related to the technology transferred;
 - (4) technology must be exploitable in terms of access to world markets; and
 - (5) credits shall be given, based on the resulting export and import replacement sales from the forenoted transactions.
- g. The extent to which each transaction shall qualify shall be based on and limited to valid orders and/or contracts delivered by the end of the industrial benefits period(s) and will only qualify if all terms and conditions of the order or contract are consistent with normal business practice. Provision will be made for the deletion of cancelled or terminated contracts, and in certain circumstances for deletion where the full price has not yet been paid.
- h. Where the Minister of DRIE considers it to be of benefit to Canada to do so, the Minister of the Department of Regional Industrial Expansion (DRIE) may allow, in whole or in part, any purchase, acquisition, business venture, or other participation or investment by the bidder to qualify as a Canadian industrial benefit.

Additional Criteria

Amounts claimed as industrial benefits must exclude:

- a. the value of materials, labour and services imported into Canada;
- b. the amounts of all Canadian customs duty or Canadian excise taxes;
- c. all amounts of all non-Canadian customs, import or administration duties;
- d. all transportation costs except the cost of transportation via Canadian carriers;
- e. the value of goods and services with respect to which credit has been received by the bidder, his partner or any of its suppliers as an industrial benefit to Canada under any other agreement;

- 4 -

- f. raw material and semi-processed goods;

Industrial benefits may include:

- a. industrial benefits implemented by the prime contractor, its subcontractors and its affiliated or associated companies if they meet the eligibility criteria; and
- b. purchases from Canadian industry by foreign governments if they meet the eligibility criteria and are allocated by the foreign government to a subcontractor in that foreign country, to claim as an offset.

Activities

The following are the types of activities bidders are encouraged to consider:

- a. ensure that proprietary products, systems or other goods to be produced in Canada can be sold to other countries by the Canadian producer;
- b. involvement in Canada in any of the following:
 - (1) the design, manufacture, assembly, systems management, or the integration of the equipment to be procured; and
 - (2) the integrated logistics associated with the system selected.
- c. transfer of technology to a Canadian firm by any of the following means:
 - (1) the design and development of new systems for defence or commercial applications;
 - (2) the provision of new technology which will improve the manufacturing of present product lines; and
 - (3) provision of licences which will allow the manufacture of new products.
- d. investment in Canada for example:
 - (1) developing joint ventures with Canadian firms,
 - (2) enhancing present facilities,
 - (3) establishing new manufacturing facilities or capacity which will not lead to excess capacity, but will strengthen and enhance the Canadian industrial base.

- 5 -

- e. the placing of purchase contracts for Canadian goods or services or including Canadian firms in programs which have world market potential and result in export sales of Canadian products;
- f. assistance to Canadian firms in such areas as management techniques, technology enhancement, productivity improvement or marketing;
- g. establishment of Canadian firms as sole source or co-producers of major sub-systems or components for new or existing products;
- h. conducting in Canada applied research and development;
- i. the distribution of industrial activities among the designated regions of Canada.

Agreement to undertake activities not listed above but which offer substantial economic benefit may be included.

Proposal Evaluation Factors

The overall objective of the evaluation is to identify the strengths and weaknesses of each proposal, and to determine the best overall IB package for Canada.

The IB evaluators will examine the bid proposals with a view to:

- a. assess the bidder's long term plans as pertinent to the project;
- b. evaluate the proposed IB undertakings;
- c. assess the bidder's ability to achieve the proposed IB undertakings; and
- d. assess the risks associated with implementing the proposed IB undertakings.

The evaluation of the IB proposals will take into consideration not only the quantitative but also qualitative and risk aspects as pertinent to:

- a. comprehension - does the proposal demonstrate a full understanding by the bidder of the RFP?
- b. competence - does the bidder have previous experience in providing IB transactions?

- 6 -

- c. capability - does the bidder have the ability to achieve IB commitments (e.g. facilities, resources, organization)?
- d. compliance - does the proposal demonstrate a commitment, including liquidated damages, by the bidder?
- e. effectiveness - does the bidder's long term plans indicate reasonable probability of achievement?
- f. regional participation - does the proposal demonstrate a commitment to the designated regions of Canada?
- g. risk - does the IB transaction(s) offered negatively or positively impact the overall program?

Specifically, IB proposals will be evaluated on in-vehicle or in-project content and the Canadian (value added) content in offset purchases, the transfer of technology and the resultant sales of goods and services from this transfer; investment and new ventures; regional participation; and implementing/managing the IBs plan and IB proposals and commitments.

FMC Corporation

Defense Systems International Division
881 Martin Avenue Box 58123
Santa Clara California 95052
408 289-0111

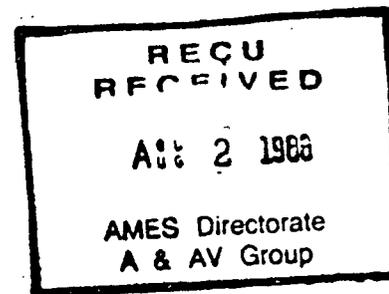
29 July 1988

FMC

Aerospace, Marine & Electronics
Systems Directorate
11 Laurier Street
Place du Portage, Phase III, 8C1
Hull, Quebec
K1A 0S5

Attn: J.D. Richards
Engineering Procurement Officer
BL Section

REF: Your Letter 25BL.39-5258



SUBJECT: Land Reserve Modernization Project
Price and Availability

Dear Sir,

In response to your above referenced letter, FMC is pleased to provide price and availability information for the Land Reserve Modernization Program.

Attachment 1 contains budgetary prices for the various M113 configurations stated in your letter, in both the A2 and A3 versions. These prices are based on the most economical production source, our factory in San Jose, California, currently producing several hundred M113's per year.

These prices are effective with or without a typical indirect Industrial Benefits Program (offset purchases of goods or services). On programs of this nature, our efforts have always been to develop strong long term business relationships with local industry that can be built on for the future, not just to subsidize a few purchase orders in order to meet contractual requirements. In this way, the Canadian Government, Canadian industry and FMC all gain from Industrial Benefits. As such, the cost of implementing and administering such an Industrial Benefits Program is an integral part of our method of doing business and therefore cannot be separated.

Establishment of a co-production program, on the other hand, an opportunity that could have many benefits for both Canada and FMC, does carry with it premiums that affect prices. While the limited production quantity for this one program would result in cost premiums, other vehicle programs (such as upgrade programs, repair and overhaul programs, other new vehicle programs, etc.) could be used to economically justify the investments required. FMC has investigated this opportunity and would be pleased to discuss such an idea in more depth.

Rough price estimates for locally produced vehicles are provided in Attachment 2. Although these estimates are based on several assumptions, they will serve for planning purposes. Of course, more exact prices could be developed as the details of a co-production program (size, duration, etc.) are decided.

As you know from our previous efforts in Canada, FMC is currently working with several different Canadian companies on military vehicle production. Our relationships with these companies vary from standard subcontracts (such as with Vestshell for precision castings) to licensing agreements for major M113 sub-systems (as with ADIL for the manufacture of M113 external fuel tanks) to joint venture discussions (as with ADIL on the M113 Upgrade Program). A list of those companies with whom FMC is currently working for production of military vehicles and their subsystems is provided in Attachment 3. While we have not entered into any exclusive agreements with a Canadian company for M113 co-production, Attachment 3 also contains a list of those companies we have investigated for just such a possibility.

We agree and support your concept of equipping the Training Centers with vehicles identical to those in fielded units. We are therefore pleased to provide you with this information and look forward to working with you on this program. If we can provide any further information on any of these points, or on any other subject, please do not hesitate to contact me at (408) 289-4305, Mr. Al LaPorte, Program Manager, at (408) 289-3852 or Gerard Ezcurra, Regional Director, at (408) 289-4919.

Yours truly,



David E. Doyle
Director, International Business

ATTACHMENT 1

BUDGETARY PRICES- M113 VEHICLES- F.O.B. SAN JOSE

<u>BCC</u>	<u>Vehicle Description</u>	<u>Quantity</u>	<u>M113A2</u>	
			<u>Unit Price</u>	<u>Expanded Price</u>
114131	Troop Carrier	138	\$250,000	\$34,500,000
114253	TOW Under Armor Anti Tank	8	\$305,000	\$2,440,000
114247	Troop Carrier w/ Dozer Blade	4	\$370,000	\$1,480,000
114248	Troop Carrier w/ Dozer Blade & PTO	16	\$373,000	\$5,968,000
114802	Armored Recovery Vehicle, Light	12	\$430,000	\$5,160,000
114202	Fitter	11	\$405,000	\$4,455,000
114128	Command Post M577	8	\$286,000	\$2,288,000
114140	Cargo Carrier M548	16	\$310,000	\$4,960,000
		===		=====
		213		\$61,251,000

These prices are budgetary prices in 1988 U.S. Dollars and are F.O.B. our factory in San Jose, California. They assume no contractual requirements for Canadian content, are based on deliveries spread evenly over 4 years and do not include charges for developing new technical data packages for the special configuration vehicles. R&D recoupment and government equipment usage charges are also not included. These prices are based on the assumption that the TOW system is supplied by the Canadian Government, as well as the other usual equipment so supplied. Delivery of the first units could begin 18 months after receipt of the order.

The newest modification of the M113 vehicle, the M113A3, would also meet your needs for this program. As a budgetary estimate, its cost is \$75,000 greater than an A2 vehicle.

ATTACHMENT 2

BUDGETARY ESTIMATES- M113 VEHICLES- LOCALLY PRODUCED

FMC has applied its experience in co-production programs to the knowledge that we have been gathering about Canada and its industry. A co-production program for these vehicles, while well within the technical capabilities of Canadian industry, is difficult to justify on economic terms based on this program alone. For the small production levels (approximately 50 vehicles per year) and the short term nature of this program (4 years), the unit price of the vehicles could increase anywhere from 15% to 40% over those stated in Attachment 1. Amortization of facilitization, capital equipment or shut down costs are not included in this estimate.

Other factors that could reduce unit prices of locally produced vehicles include:

Production Rate- Increasing the production rate above the current 50 vehicles per year would result in lower costs.

Special Units- Spreading the delivery of the special units negates the manufacturing efficiencies available. Producing all of each type in a continuous production run would result in significant cost savings.

Location- Although the production of the vehicle sub-systems would be spread across various provinces of Canada and within the U.S., the location of the final production facility (which would carry out assembly, testing and final delivery) would impact the cost of labor, available work force, energy, shipping and several other factors. In addition, there are locations in Canada that have existing facilities that could be easily tailored to vehicle production, saving some of the required facilitization costs.

If the Canadian production facilities established for this program could be used for other other light vehicle projects (such as repair and overhaul, upgrades or other new vehicle orders, and export orders) the investments required could be better justified. In addition, start up costs such as facilitization, capital equipment and training, as well as ongoing fixed costs could be spread over a larger production base, decreasing unit costs. Also, more technology could be transferred to Canada and spread over different provinces.

These concepts and cost estimates are the result of our preliminary investigations into the feasibility of a full co-production program. FMC would be pleased to present a more in-depth proposal on such a program. We also welcome the opportunity to discuss the effect of the various factors mentioned above and how they could be used to establish a cost effective production source for light military vehicles in Canada.

ATTACHMENT 3

FMC'S PRESENT VEHICLE PRODUCTION EFFORTS IN CANADA

FMC is currently involved with several Canadian firms in relation to military vehicle production. These firms, after having received specific technologies from FMC, are producing several different sub-assemblies and components that are used in our production line in California and eventually shipped to our customers all over the world. These companies are an ideal base upon which we could build a co-production program for Canada.

The firms that we are currently are working with and the technologies involved are:

Atlantic Defense Industries Limited- Bridgetown, Nova Scotia

ADIL is currently producing under license from FMC the external fuel cell for the Canadian Modernization Program of the M113 vehicle. FMC is providing ADIL with technical assistance in establishing the manufacturing plant, equipping it with the proper machine tools, training welders and other skilled labor and, of course, the actual production of the heavy gauge aluminum weldments for the fuel cells themselves. ADIL, once in production, can then be used as a source for FMC's own production needs.

Alcan Canada- Shawinigan, Quebec

Alcan produces several different military grade aluminum extrusions for our M113 and M2/M3 Bradley Fighting Vehicles. These are used on FMC military vehicles, destined for Canada, the United States, and all over the world.

Beckman Instruments- Toronto, Ontario

Beckman currently supplies our production line in California with electronic assemblies for the Bradley Fighting Vehicle.

CHT Steel International- Toronto, Ontario

FMC's research and development laboratories have worked with CHT to develop them into a qualified heat treater for normal and heavy gauge steel armor for the U.S. military market. CHT is now producing this armor for the M2/M3 Bradley Fighting Vehicle production line. In addition, they are actively involved with FMC in co-development projects to generate new advanced armor systems.

Attachment 3 (cont.)

Computing Devices Canada- Bells Corners, Ontario

CDC is presently manufacturing our most sophisticated electronic components, the black boxes for the Bradley Fighting Vehicle.

Espar Products- Mississauga, Ontario

Espar is the key producer of personnel heaters for the M113 and M2/M3 Bradley Fighting Vehicles. These products are delivered by FMC to our customers worldwide.

Gabriel of Canada- Toronto, Ontario

Gabriel produces shock absorbers used on the M113 and the M2/M3 Bradley Fighting Vehicles. These shock absorbers are used on our production line in California for delivery to our customers worldwide.

General Kinetics- Bramalea, Ontario

General Kinetics also produces shock absorbers used on the M113 and the M2/M3 Bradley Fighting Vehicles.

Long Manufacturing Ltd.- Oakville, Ontario

Radiators used on the M113 vehicle are currently produced by Long. These are used on our regular production line and can be found on FMC vehicles throughout the world.

Pullmaster Winch Co.- Surrey, British Columbia

Pullmaster produces steel cables that are mounted on the M113 and M2/M3 Bradley Fighting Vehicle and shipped to customers throughout the world.

Shellcast Foundries- Montreal, Quebec

Shellcast produces high grade steel castings used for our vehicle production line. Their parts are found on vehicles delivered to our U.S. and foreign customers.

Vestshell Inc.- Montreal, Quebec

Vestshell is a premier producer of precision aluminum castings that are used on our vehicle production line in California.

Attachment 3 (cont.)

In anticipation of this and future vehicle programs in Canada, FMC has also consulted with several additional Canadian companies to discuss possible business cooperation. These companies include:

Active Gear- Concord, Ontario
Bata Engineering- Batawa, Ontario
Bombardier- Montreal, Quebec
Bristol Aerospace- Winnipeg, Manitoba
CNR Maintenance Depot- Muncion, New Brunswick
Canadian Foremost- Calgary, Alberta
Dew Engineering- Ottawa, Ontario
Diemaster Tool- Mississauga, Ontario
Dominion Engineering- Montreal, Quebec
Douglas Brothers- St. Laurent, Quebec
Drew Manufacturing- Mississauga, Ontario
E.S.Fox- Welland, Ontario
GM Canada- London, Ontario
Godfrey Howden- Lachine, Quebec
Harrington Division- Lachine, Quebec
Havlik Technologies- Toronto, Ontario
Hawker Siddeley - Trenton, Nova Scotia
Hylar Precision Machine- Regina, Saskatchewan
Invar- Batawa, Ontario
Lavalin- Montreal, Quebec
Linamar Machine- Guelph, Ontario
Manac - Quebec, Quebec
Marine Industries Ltd.- Vickers- Montreal, Quebec
Northside Steel Fabrication- Kelowna, British Columbia
Oerlikon Aerospace- Montreal, Quebec
SDG Machine Shop- Lachine, Ontario
Trailmobile- Brantford, Ontario
Weldco- Beales- Burnaby, British Columbia

VERNEY
- DASL.

Minister of National Defence

Ministre de la Défense nationale

CANADA

JAN 1 1989

Mr. Robert N. Burt
Vice President
FMC Corporation
881 Martin Avenue
Box 58123
Santa Clara, California 95052
USA

Dear Mr. Burt:

Thank you for your letters of August 5 and September 14, 1988 detailing your proposal to establish a facility in Canada for armoured vehicle design, production and upgrade related to the light armoured vehicle portion of the Land Reserve Modernization Project, the requirement for new vehicles to enlarge and modernize our fleet and, thirdly the requirement for selective upgrading of a portion of our existing M113 fleet.

While your proposed sourcing strategy is of interest, there are a number of points that I must bring to your attention. As currently established, each of the above programs is a separate project although, obviously, they are closely related. None of these projects are currently scheduled for implementation until at least the early to mid-1990s and, at this time, none of them have received approval-in-principle from the Government. Furthermore, it would appear that funding constraints will require that we consider each portion separately on its own merits.

As you point out, there are possible advantages to be gained through a proposal such as yours in terms of equipment commonality that might result in increased efficiencies in terms of operations, repair, overhaul and maintenance. However, such advantages must be balanced against other considerations. While elements such as price, sustainability, operating costs, etc., are factors which are taken into consideration, it is not only the technical and operational requirements and specifications that must

- 2 -

be satisfied. The proposal must also meet the Government's industrial and regional development objectives and requirements as well as defence industrial base considerations. These latter factors could be a prime consideration in a decision not only to keep the three programs as separate contracts but also in dictating the type of procurement strategy the Government would wish to pursue for these acquisitions.

I believe the foregoing is particularly important and something that you will wish to consider carefully in responding to any of our acquisition initiatives. Should the necessary approvals be given in due course, the Government would, at that time, be able to identify for industry the specific type of procurement strategy it wished to pursue relative to meeting our requirements in these three light armoured vehicle projects. This would then enable you to assess your proposal within specific contexts of technical/operational specifications, cost, timing, number of vehicles and industrial/regional development objectives.

In the meantime, as you had informed a number of my colleagues of your intention to submit this proposal, I have taken the liberty of passing a copy of your proposal, together with my reply, to my colleagues, the Ministers of Regional Industrial Expansion and Supply and Services. They will serve as appropriate points of contact for you with respect to facility location, regional/industrial development policy and procurement policy.

Again, thank you for your continued interest in Canadian defence requirements.

Sincerely,

ORIGINAL SIGNED BY
ORIGINAL SIGNÉ PAR
HON. PERRIN BEATTY

cc: ✓ DND Inq
PD LAV

Perrin Beatty

The Honourable Robert R. de Cotret, P.C., M.P.
Minister of Regional Industrial Expansion and
Minister of State for Science and Technology
The Honourable Otto Jelinek, P.C., M.P.
Minister of Supply and Services
The Honourable Bill McKnight, P.C., M.P.
Minister of Indian Affairs and Northern Development
and Minister of Western Economic Diversification
Senator the Honourable Lowell Murray, P.C.
Leader of the Government in the Senate and
Minister of State (Federal-Provincial Relations)

ML/sb
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DDIR / DRID

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SEP 26 1988

Directorate of
Defence Industrial Resources
Direction des
ressources industrielles de la
Défense

ADM (MAT)
SECRETARIAT
25083
SEP 21 1988
SECRETARIAT du
SMA (MAT)

- Eldon J. Henley

For your information, the attached is a
copy of the document sent to the Min's office today

In a letter to the Honorable Perrin Beatty,
dated August 5, 1988, FMC Corporation put
forward an integrated plan for Light Armoured
Vehicle (LAV) acquisition for the Canadian
Armed Forces. Attached please find the full
formal proposal which has been sent to DND
for consideration.

A contract for the Land Reserve Modernization
Program (LRMP) and an MOU on the remainder
of the plan will initiate the industrial
transfer of technology.

Rick Black
563-4879

Henley

②

C S
For action in
conjunction with CEM

→ C LDO

ADM (Mat)
22/09

④ NIT
PMO AALAV
has info
due date 8 Oct
7/19/88

③
A/DGSPDI
Pls take lead in coordination
and preparing response.
Ray Stuyvel
13/9/88
MCS

Robert N Burt
Vice President

FMC Corporation
881 Martin Avenue
Box 58123
Santa Clara California 95052

September 14, 1988

The Honorable Perrin Beatty, P.C., M.P.
Minister of National Defence
101 Colonel by Drive
Ottawa, Ontario
Canada K1A 0K2

Dear Minister Beatty:

Attached is the FMC formal proposal for several related Canadian Forces light armored vehicle programs which was outlined in my letter of August 5, 1988. FMC proposes to provide the total 1739 new vehicles for the Light Armored Vehicle (LAV) Program and the planned armament and armor upgrades for the existing fleet of M113 vehicles within what we understand are the planned funding levels for the LAV Program. Because of the high commonality with the existing fleet of M113 vehicles the fielding and logistics support costs would also result in significant program savings. Additionally, the vehicles will be developed, produced, and supported in Canada by Canadian companies led by FMC of Canada, Ltd., Oerlikon Aerospace, Atlantic Defense Industries, Ltd., and many others.

FMC recommends the purchase of the Land Reserve Modernization Program (LRMP) from our San Jose production facility in order to fill the total 213 vehicle requirement within the LRMP budgeted funds. The proposal does offer the option to produce the LRMP vehicles in Canada. There are also several proposed product options which could reduce the cost of the LAV Program. FMC is prepared to discuss the proposal and any changes the government may wish to make to it.

Additionally, FMC remains flexible in the location of a Canadian production facility which could also serve our worldwide markets. Although we have explored possible sites, we would welcome the Government's input before we and our Canadian partners make our final choice.

Minister Beatty
Page 2

We believe it is in the best interests of the Canadian government and the Department of National Defence to accept FMC's proposal. Prompt acceptance will result in a procurement program tailored to the needs of the Canadian Forces, a larger number of vehicles procured, lower logistics support costs, a Canadian vehicle design capability, significant involvement of Canadian industry and a production capability to serve worldwide markets.

We at FMC look forward to working with you and your fellow Canadians in future years.

Sincerely,

Robert N. Burt

Robert N. Burt

Attachment

**Pages 1001 to / à 1056
are withheld pursuant to section
sont retenues en vertu de l'article**

20(1)

**of the Access to Information Act
de la Loi sur l'accès à l'information**

FMC Corporation

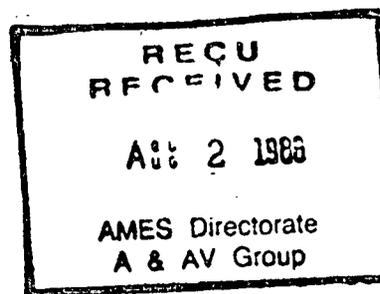
Defense Systems International Division
281 Martin Avenue Box 58123
Santa Clara California 95052
408 289-0111

29 July 1988

FMC

Aerospace, Marine & Electronics
Systems Directorate
11 Laurier Street
Place du Portage, Phase III, 8C1
Hull, Quebec
K1A 0S5

Attn: J.D. Richards
Engineering Procurement Officer
BL Section



REF: Your Letter 25BL.39-5258

SUBJECT: Land Reserve Modernization Project
Price and Availability

Dear Sir,

In response to your above referenced letter, FMC is pleased to provide price and availability information for the Land Reserve Modernization Program.

Attachment 1 contains budgetary prices for the various M113 configurations stated in your letter, in both the A2 and A3 versions. These prices are based on the most economical production source, our factory in San Jose, California, currently producing several hundred M113's per year.

These prices are effective with or without a typical indirect Industrial Benefits Program (offset purchases of goods or services). On programs of this nature, our efforts have always been to develop strong long term business relationships with local industry that can be built on for the future, not just to subsidize a few purchase orders in order to meet contractual requirements. In this way, the Canadian Government, Canadian industry and FMC all gain from Industrial Benefits. As such, the cost of implementing and administering such an Industrial Benefits Program is an integral part of our method of doing business and therefore cannot be separated.

Establishment of a co-production program, on the other hand, an opportunity that could have many benefits for both Canada and FMC, does carry with it premiums that affect prices. While the limited production quantity for this one program would result in cost premiums, other vehicle programs (such as upgrade programs, repair and overhaul programs, other new vehicle programs, etc.) could be used to economically justify the investments required. FMC has investigated this opportunity and would be pleased to discuss such an idea in more depth.

Rough price estimates for locally produced vehicles are provided in Attachment 2. Although these estimates are based on several assumptions, they will serve for planning purposes. Of course, more exact prices could be developed as the details of a co-production program (size, duration, etc.) are decided.

As you know from our previous efforts in Canada, FMC is currently working with several different Canadian companies on military vehicle production. Our relationships with these companies vary from standard subcontracts (such as with Vestshell for precision castings) to licensing agreements for major M113 sub-systems (as with ADIL for the manufacture of M113 external fuel tanks) to joint venture discussions (as with ADIL on the M113 Upgrade Program). A list of those companies with whom FMC is currently working for production of military vehicles and their subsystems is provided in Attachment 3. While we have not entered into any exclusive agreements with a Canadian company for M113 co-production, Attachment 3 also contains a list of those companies we have investigated for just such a possibility.

We agree and support your concept of equipping the Training Centers with vehicles identical to those in fielded units. We are therefore pleased to provide you with this information and look forward to working with you on this program. If we can provide any further information on any of these points, or on any other subject, please do not hesitate to contact me at (408) 289-4305, Mr. Al LaPorte, Program Manager, at (408) 289-3852 or Gerard Ezcurra, Regional Director, at (408) 289-4919.

Yours truly,



David E. Doyle
Director, International Business

ATTACHMENT 1

BUDGETARY PRICES- M113 VEHICLES- F.O.B. SAN JOSE

<u>BCC</u>	<u>Vehicle Description</u>	<u>Quantity</u>	M113A2	
			<u>Unit Price</u>	<u>Expanded Price</u>
114131	Troop Carrier	138	\$250,000	\$34,500,000
114253	TOW Under Armor Anti Tank	8	\$305,000	\$2,440,000
114247	Troop Carrier w/ Dozer Blade	4	\$370,000	\$1,480,000
114248	Troop Carrier w/ Dozer Blade & PTO	16	\$373,000	\$5,968,000
114802	Armored Recovery Vehicle, Light	12	\$430,000	\$5,160,000
114202	Fitter	11	\$405,000	\$4,455,000
114128	Command Post M577	8	\$286,000	\$2,288,000
114140	Cargo Carrier M548	16	\$310,000	\$4,960,000
		===		=====
		213		\$61,251,000

These prices are budgetary prices in 1988 U.S. Dollars and are F.O.B. our factory in San Jose, California. They assume no contractual requirements for Canadian content, are based on deliveries spread evenly over 4 years and do not include charges for developing new technical data packages for the special configuration vehicles. R&D recoupment and government equipment usage charges are also not included. These prices are based on the assumption that the TOW system is supplied by the Canadian Government, as well as the other usual equipment so supplied. Delivery of the first units could begin 18 months after receipt of the order.

The newest modification of the M113 vehicle, the M113A3, would also meet your needs for this program. As a budgetary estimate, its cost is \$75,000 greater than an A2 vehicle.

ATTACHMENT 2

BUDGETARY ESTIMATES- M113 VEHICLES- LOCALLY PRODUCED

FMC has applied its experience in co-production programs to the knowledge that we have been gathering about Canada and its industry. A co-production program for these vehicles, while well within the technical capabilities of Canadian industry, is difficult to justify on economic terms based on this program alone. For the small production levels (approximately 50 vehicles per year) and the short term nature of this program (4 years), the unit price of the vehicles could increase anywhere from 15% to 40% over those stated in Attachment 1. Amortization of facilitization, capital equipment or shut down costs are not included in this estimate.

Other factors that could reduce unit prices of locally produced vehicles include:

Production Rate- Increasing the production rate above the current 50 vehicles per year would result in lower costs.

Special Units- Spreading the delivery of the special units negates the manufacturing efficiencies available. Producing all of each type in a continuous production run would result in significant cost savings.

Location- Although the production of the vehicle sub-systems would be spread across various provinces of Canada and within the U.S., the location of the final production facility (which would carry out assembly, testing and final delivery) would impact the cost of labor, available work force, energy, shipping and several other factors. In addition, there are locations in Canada that have existing facilities that could be easily tailored to vehicle production, saving some of the required facilitization costs.

If the Canadian production facilities established for this program could be used for other other light vehicle projects (such as repair and overhaul, upgrades or other new vehicle orders, and export orders) the investments required could be better justified. In addition, start up costs such as facilitization, capital equipment and training, as well as ongoing fixed costs could be spread over a larger production base, decreasing unit costs. Also, more technology could be transferred to Canada and spread over different provinces.

These concepts and cost estimates are the result of our preliminary investigations into the feasibility of a full co-production program. FMC would be pleased to present a more in-depth proposal on such a program. We also welcome the opportunity to discuss the effect of the various factors mentioned above and how they could be used to establish a cost effective production source for light military vehicles in Canada.

ATTACHMENT 3

FMC'S PRESENT VEHICLE PRODUCTION EFFORTS IN CANADA

FMC is currently involved with several Canadian firms in relation to military vehicle production. These firms, after having received specific technologies from FMC, are producing several different sub-assemblies and components that are used in our production line in California and eventually shipped to our customers all over the world. These companies are an ideal base upon which we could build a co-production program for Canada.

The firms that we are currently are working with and the technologies involved are:

Atlantic Defense Industries Limited- Bridgetown, Nova Scotia

ADIL is currently producing under license from FMC the external fuel cell for the Canadian Modernization Program of the M113 vehicle. FMC is providing ADIL with technical assistance in establishing the manufacturing plant, equipping it with the proper machine tools, training welders and other skilled labor and, of course, the actual production of the heavy gauge aluminum weldments for the fuel cells themselves. ADIL, once in production, can then be used as a source for FMC's own production needs.

Alcan Canada- Shawinigan, Quebec

Alcan produces several different military grade aluminum extrusions for our M113 and M2/M3 Bradley Fighting Vehicles. These are used on FMC military vehicles, destined for Canada, the United States, and all over the world.

Beckman Instruments- Toronto, Ontario

Beckman currently supplies our production line in California with electronic assemblies for the Bradley Fighting Vehicle.

CHT Steel International- Toronto, Ontario

FMC's research and development laboratories have worked with CHT to develop them into a qualified heat treater for normal and heavy gauge steel armor for the U.S. military market. CHT is now producing this armor for the M2/M3 Bradley Fighting Vehicle production line. In addition, they are actively involved with FMC in co-development projects to generate new advanced armor systems.

Attachment 3 (cont.)

Computing Devices Canada- Bells Corners, Ontario

CDC is presently manufacturing our most sophisticated electronic components, the black boxes for the Bradley Fighting Vehicle.

Espar Products- Mississauga, Ontario

Espar is the key producer of personnel heaters for the M113 and M2/M3 Bradley Fighting Vehicles. These products are delivered by FMC to our customers worldwide.

Gabriel of Canada- Toronto, Ontario

Gabriel produces shock absorbers used on the M113 and the M2/M3 Bradley Fighting Vehicles. These shock absorbers are used on our production line in California for delivery to our customers worldwide.

General Kinetics- Bramalea, Ontario

General Kinetics also produces shock absorbers used on the M113 and the M2/M3 Bradley Fighting Vehicles.

Long Manufacturing Ltd.- Oakville, Ontario

Radiators used on the M113 vehicle are currently produced by Long. These are used on our regular production line and can be found on FMC vehicles throughout the world.

Pullmaster Winch Co.- Surrey, British Columbia

Pullmaster produces steel cables that are mounted on the M113 and M2/M3 Bradley Fighting Vehicle and shipped to customers throughout the world.

Shellcast Foundries- Montreal, Quebec

Shellcast produces high grade steel castings used for our vehicle production line. Their parts are found on vehicles delivered to our U.S. and foreign customers.

Vestshell Inc.- Montreal, Quebec

Vestshell is a premier producer of precision aluminum castings that are used on our vehicle production line in California.

Attachment 3 (cont.)

In anticipation of this and future vehicle programs in Canada, FMC has also consulted with several additional Canadian companies to discuss possible business cooperation. These companies include:

Active Gear- Concord, Ontario
Bata Engineering- Batawa, Ontario
Bombardier- Montreal, Quebec
Bristol Aerospace- Winnipeg, Manitoba
CNR Maintenance Depot- Munciton, New Brunswick
Canadian Foremost- Calgary, Alberta
Dew Engineering- Ottawa, Ontario
Diemaster Tool- Mississauga, Ontario
Dominion Engineering- Montreal, Quebec
Douglas Brothers- St. Laurent, Quebec
Drew Manufacturing- Mississauga, Ontario
E.S.Fox- Welland, Ontario
GM Canada- London, Ontario
Godfrey Howden- Lachine, Quebec
Harrington Division- Lachine, Quebec
Havlik Technologies- Toronto, Ontario
Hawker Siddeley - Trenton, Nova Scotia
Hylar Precision Machine- Regina, Saskatchewan
Invar- Batawa, Ontario
Lavalin- Montreal, Quebec
Linamar Machine- Guelph, Ontario
Manac - Quebec, Quebec
Marine Industries Ltd.- Vickers- Montreal, Quebec
Northside Steel Fabrication- Kelowna, British Columbia
Oerlikon Aerospace- Montreal, Quebec
SDG Machine Shop- Lachine, Ontario
Trailmobile- Brantford, Ontario
Weldco- Beales- Burnaby, British Columbia

Supply and Services - Approvisionnement et Services
Canada

Systems, Marine & Electronics
Systems Directorate
11 Laurier Street
Place du Portage, Phase III, 801
Hull, Quebec
K1A 0S5

See file - voir référence

Our file - Notre référence

25BL 39-5258

June 22, 1988

FMC Corporation
Defence Systems International Division
881 Martin Avenue, Box 58123
Santa Clara, California
95052

Attention: A.J. La Porte

REFERENCE: Land Reserve Modernization Project
SUBJECT: Price and Availability

Dear Sir,

Further to our preliminary discussions and communications in March and April 1988, the Crown wishes to advise you of the following.

Supply and Services Canada has now been officially requested by the Department of National Defence to obtain price and availability information in support of the referenced project. A contending vehicle for the planned requirement is the M113 APC. Quantities and configurations of M113 vehicles envisaged to be needed for provision of Militia training are attached, however the total requirement is subject to availability of funding and may be as low as one hundred and fifty (150) total vehicles. Note that the configuration of the second vehicle is for TOW under armour and deliveries are now projected from 1990.

The Crown wishes to obtain maximum benefits for Canada as a whole and for the Department of National Defence specifically from the outlays for this project.

Canada is committed to a Canadian industrial defence base which will support all of its defence systems in-country in the event of war. Accordingly the Crown will attach great importance to obtaining industrial involvement with long term benefits to Canada.

.../2

It is also recognized that economic disparities exist within Canada and therefore attention will be paid to regional participation in any industrial involvement. In addition, the Crown is presently studying initiatives to encourage small business to participate as subcontractors in larger programs.

An Annex similar to the attached Annex E covering Industrial Benefits will form part of the Request for Proposal if the Project and the procurement are authorized to proceed.

The following Price and Availability information is therefore required for planning, budgeting and value analysis purposes:

- 1) Unit prices and delivery for supply of all equipment F.O.B. San Jose, California, without any industrial offsets. All taxes and duties included in the prices must be identified by name and amount.
- 2) Unit Prices and delivery for the supply of all equipment F.O.B. San Jose, California on a contract requiring Industrial Benefits to Canada in the form of Offset Purchases of goods or services to the value of 75% or more of the total purchase price payable by Her Majesty to the Contractor. All taxes and duties included in the prices must be identified by name and amount.
- 3) Unit Prices and delivery for the supply of the equipment on a contract requiring co-production of the vehicles or a substantial amount of the manufacture of the base vehicles to be performed in Canada.
- 4) With respect to 3 above, you are requested to estimate and identify any premium in your prices attributable to work performance in a designated region, viz a viz any location in Canada considered by FMC to be more cost effective.

You are also requested to identify and describe any agreements or other arrangements you may have in place with Canadian companies such as ADIL or any others for participation in M113 manufacture or similar work.

Your response should be submitted in four copies to:

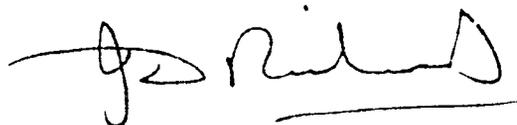
Mr. J.D. Richards
Department of Supply and Services
Aerospace, Marine & Electronics
Systems Directorate
11 Laurier Street
Place du Portage, Phase III, 8C1
Hull, Quebec
K1A 0S5

on or before August 1, 1988.

This price and availability enquiry is not a Request for Proposal or Call for Tender and the Crown is not obliged to accept any proposal received in response hereto.

Nothing in this P&A is to be construed as directing the respondent to enter into any work thereby accruing financial liability or other indebtedness to the Crown. The cost associated with any effort expended or committed by the respondent in preparing, submitting or substantiating replies is to be borne by the respondent.

Yours truly,

A handwritten signature in black ink, appearing to read 'J.D. Richards', written over a horizontal line.

J.D. Richards
Engineering Procurement Officer
BL Section
(819) 956-0206

ANNEX A

PLANNED REQUIREMENTS FOR M113 ARMoured PERSONNEL CARRIERS
FOV WITHIN MILITIA TRAINING AND SUPPORT CENTRES

<u>CC</u>	<u>VEHICLE DESCRIPTION</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>TOTAL</u>
14131	Troop Carrier	33	35	35	35	138
14253	TOW Under Armor Anti Tank	2	2	2	2	8
14247	Troop Carrier W/Dozer Blade	1	1	1	1	4
14248	Troop Carrier W/Dozer Blade & Hyd PTO	4	4	4	4	16
14802	Armored Recovery Vehicle Light	3	3	3	3	12
14202	Fitter	2	3	3	3	11
14128	Command Post M577	1	2	2	3	8
14140	Cargo Carrier M548	4	4	4	4	16
	<u>TOTAL</u>	<u>50</u>	<u>54</u>	<u>54</u>	<u>55</u>	<u>213</u>

ANNEX E - INDUSTRIAL BENEFITS (IB'S)

E1.0 GENERAL INFORMATION

- E1.1 It is the intent of Canada to obtain Industrial Benefits from this purchase. Accordingly, in considering proposals for this program, the Crown will attach great importance to Canadian industrial involvement which will have long-term economic benefits to Canada. Attention will also be paid to regional participation.
- E1.2 Responses should place emphasis on a mix of technology enhancement and manufacturing opportunities which will contribute to the long-term viability of Canadian companies and improve their ability to compete in both domestic and international markets.
- E1.3 It is expected that the preparation of the Industrial Benefits response will require investigation, discussion and negotiation between foreign and Canadian companies. The Department of Regional Industrial Expansion (DRIE Manager-LRMP) is prepared to assist in establishing company-to-company links aimed at maximizing Industrial Benefits for Canada.
- E1.4 It is also recommended that bidders discuss with the DRIE Manager-LRMP any proposed Industrial Benefits which involve the export of defence and defence-related material to third countries, in order to ensure that such exports are consistent with Canadian Government policy.

E2.0 SCOPE

- E2.1 GENERAL This section outlines the Crown's approach to optimization of long-term industrial benefits.
- E2.2 PURPOSE The purpose of this section is to obtain an IB proposal and options which is to address but not be limited to the following noted activities as described in appendices*:
- a. industrial benefits proposal summary
 - Direct Transaction
 - b. in-vehicle Canadian content
 - c. offset purchases
 - d. new investments and joint ventures
 - e. transfer of technology
 - f. other economic opportunities
 - g. regional participation
 - h. managing industrial benefits

*NOTE

See also Guidelines - Industrial Benefits (IBs) attached

E2.3 INTENDED USE The response will be examined to:

- a. assess the respondents long term business plans as applicable to Canada's LRMP project;
- b. evaluate the IB proposals and options; and
- c. assess the risk and the respondent's ability to implement the proposed IB's.

E2.4 APPROACH A response is required describing as a minimum the respondents approach to Canada's LRMP project and the respondents long term business plans. The intent is to obtain as much information as possible as pertinent to the proposal and the various IB options. If applicable, the cost and support data for the IB's and each option should be included in appendix H, Managing Industrial Benefits.

E3.0 CATEGORIES OF INDUSTRIAL BENEFITS

E3.1 General Since Canada is procuring defence equipment incorporating state of the art technology, the benefits should be of at least equal technology. It is desirable that the Industrial Benefits will accrue generally to the high technology segments of Canada's commercial and defence-related industry sectors.

E3.2 The options and activities described in this Annex E - Industrial Benefits, are not prioritized, nor are the options and activities limited to those described in the appendices B to G. In addition, guidelines are provided to assist respondents in developing a response.

Attachments

Appendices A to H
Guidelines - Industrial Benefits (IBs)

APPENDIX A

INDUSTRIAL BENEFITS

PROPOSAL SUMMARY

COMPANY: _____

	\$	\$	\$
<u>DIRECT TRANSACTION</u>	<u>CDN</u>	<u>FOREIGN</u>	<u>TOTAL</u>
	<u>CONTENT</u>	<u>CONTENT</u>	<u>VALUE</u>
1. APPENDIX B IN-VEHICLE CONTENT			

<u>INDIRECT TRANSACTIONS</u>			
2. APPENDIX C OFFSET PURCHASES			

3. APPENDIX D NEW INVESTMENTS AND JOINT VENTURES			

4. APPENDIX E TRANSFER OF TECHNOLOGY			

5. APPENDIX F OTHER ECONOMIC OPPORTUNITIES			

6. TOTAL VALUE	\$		

APPENDIX B

DIRECT TRANSACTION
IN-VEHICLE CDN CONTENT
(250 UNITS)

COMPANY: _____

- | | YES | NO |
|---|--------------------------|--------------------------|
| 1. IS THIS A JOINT VENTURE WITH CDN/FOREIGN FIRMS | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. IF YES DESCRIBE: _____ | | |

- | | | |
|---|--------------------------|--------------------------|
| 3. PROPOSED IN-VEHICLE CDN CONTENT | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. IF YES** CHECK FOLLOWING: | <input type="checkbox"/> | <input type="checkbox"/> |
| a. PARTS AND COMPONENTS | <input type="checkbox"/> | <input type="checkbox"/> |
| b. SUB ASSEMBLIES | <input type="checkbox"/> | <input type="checkbox"/> |
| c. ASSEMBLIES | <input type="checkbox"/> | <input type="checkbox"/> |
| d. SYSTEM INTEERATION | <input type="checkbox"/> | <input type="checkbox"/> |
| e. TDP, MANUALS, TRAINING, TRAINING AIDS, OTHER | <input type="checkbox"/> | <input type="checkbox"/> |

5. DESCRIPTION AND VALUE OF ITEMS a TO e: _____

6. DESCRIPTION AND VALUE OF FOREIGN CONTENT: _____

7. TOTAL CDN CONTENT* \$ _____
TOTAL FOREIGN CONTENT \$ _____

4. TOTAL SYSTEM COST \$ _____

*CDN CONTENT PER DSS FORM 9260
**PLEASE PROVIDE TEN YEAR BUSINESS PLAN

APPENDIX C

INDIRECT TRANSACTIONS

OFFSET PURCHASES

COMPANY: _____

(CHECK 1. OR 2. FOLLOWING)

- | | YES | NO |
|--|--------------------------|--------------------------|
| 1. OFFSET PURCHASE PROJECT RELATED | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. OFFSET PURCHASE NOT PROJECT RELATED | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. IF YES DESCRIBE PARTS, COMPONENTS, GOODS
AND VALUES INVOLVED: _____

_____ | | |
| 4. POSSIBLE SUPPLIERS: _____ | | |
| 5. TOTAL CDN CONTENT* | \$ | |
| TOTAL FOREIGN CONTENT | \$ | _____ |
| 6. TOTAL VALUE | \$ | _____ |

*CDN CONTENT PER DSS FORM 9260

APPENDIX D

INDIRECT TRANSACTION
NEW INVESTMENTS AND JOINT VENTURES

COMPANY: _____

(CHECK 1 AND 2 FOLLOWING)

- | | YES | NO |
|--|--------------------------|--------------------------|
| 1. NEW INVESTMENT | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. JOINT VENTURE | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. IF YES DESCRIBE GOODS AND SERVICES IN-VOLVED: _____

_____ | | |
| 4. NAME AND ADDRESS OF INVESTMENT: _____

_____ | | |
| 5. NAME AND ADDRESS OF JV PARTNER: _____
_____ | | |
| 6. TOTAL CDN CONTENT* \$ _____
TOTAL FOREIGN CONTENT \$ _____ | | |
| 7. TOTAL VALUE \$ _____ | | |

*CDN CONTENT PER DSS FORM 9260

APPENDIX E

INDIRECT TRANSACTION
TRANSFER OF TECHNOLOGY

COMPANY: _____

YES NO

1. TRANSFER OF TECHNOLOGY, IF YES DESCRIBE
2. NAME AND ADDRESS OF PROPOSER: _____

3. NAME AND ADDRESS OF CDN RECIPIENT: _____

4. PROPOSAL SUMMARY: _____

5. PROPOSER'S PORTION: _____

6. RECIPIENTS PORTION: _____

7. TOTAL CDN CONTENT* \$ _____
TOTAL FOREIGN CONTENT \$ _____
8. TOTAL VALUE \$ _____

*CDN CONTENT PER DSS FORM 9260

APPENDIX F

INDIRECT TRANSACTION
OTHER ECONOMIC OPPORTUNITIES

COMPANY: _____

YES NO

1. OTHER ECONOMIC OPPORTUNITIES

2. IF YES DESCRIBE TRANSACTION(s) AND VALUE: _____

3. TOTAL CDN CONTENT*
TOTAL FOREIGN CONTENT

\$
\$ _____

4. TOTAL VALUE

\$

*CDN CONTENT PER DSS FORM 9260

APPENDIX G

DIRECT AND INDIRECT TRANSACTIONS

REGIONAL PARTICIPATION

COMPANY: _____

<u>REGIONS / DESCRIPTIONS OF MAJOR TRANSACTION(S)</u>	<u>\$ CDN CONTENT</u>	<u>\$ FOREIGN CONTENT</u>	<u>\$ TOTAL VALUE</u>
1. ATLANTIC CANADA			
2. QUEBEC			
3. ONTARIO			
4. WESTERN CANADA			
5. NOT ALLOCATED			
6. TOTAL VALUE	\$		

APPENDIX H

INDUSTRIAL BENEFITS

MANAGING INDUSTRIAL BENEFITS

COMPANY: _____

YES NO

1. IS CDN GOVERNMENT (FINANCIAL) SUPPORT
REQUIRED TO IMPLEMENT DIRECT AND INDIRECT
IB TRANSACTIONS.

2. IF YES DESCRIBE ACTIVITIES AND VALUES INVOLVED:

3. APPENDIX B
IN-VEHICLE CONTENT

4. APPENDIX C
OFFSET PURCHASES

5. APPENDIX D
NEW INVESTMENTS & JOINT VENTURES

6. APPENDIX E
TRANSFER OF TECHNOLOGY

7. APPENDIX F
OTHER ECONOMIC OPPORTUNITIES

8. OTHER ACTIVITIES AND THEIR VALUE SUCH AS SHARED R & D, ROYALTIES AND
LICENSING FEES, UPGRADING OF EXISTING FACILITIES, TRAINING OF LABOUR
FORCE AND REGIONAL ASPECTS: _____

9. IF APPLICABLE, TOTAL VALUE OF MANAGING IBS \$ _____

GUIDELINES

INDUSTRIAL BENEFITS

IBs

GUIDELINES

INDUSTRIAL BENEFITS (IBs)

Definitions

Industrial Benefits (IB) Authority is defined as the authority responsible for evaluating, monitoring and accepting IB's and any substitutions from those originally proposed and for assessing the performance with respect to the contractor's industrial benefits obligations under the resultant contract. However, the contracting authority is responsible for notifying the bidder on all contractual matters relating to IB's.

The Minister of the Department of Regional Industrial Expansion, or his duly authorized representative, the DRIE Manager Vehicle Projects, is for all purposes designated as the industrial benefits authority with reference to all aspects of the vehicle projects.

Canadian Content - for definition of Canadian content see National Standard of Canada (CAN 2-147.3-82) by the Canadian General Standards Board in Ottawa, Ontario (copy attached).

Industrial Benefits (IB) Offsets are transactions which are determined by the industrial benefit authority to have all of the characteristics set forth in the eligibility criteria section which follows.

Shortfall means that amount expressed in dollars by which the amount of eligible IB transactions credited during a period is less than the amount of eligible IB transactions committed to in the resultant contract.

If the contractor fails to meet the IB commitments, the Government of Canada will be entitled to liquidated damages. In no event shall the aggregate amount of the liquidated damages be less than ten percent (10%) of the contract price of the contract.

Small Business is defined as any company employing 100 employees or less in the manufacturing sector or less than 50 employees in the services sector.

Regions of Canada are defined as:

- a) Atlantic Canada (4 Provinces)
- b) Quebec
- c) Ontario
- d) Western Canada (4 Provinces)

Eligibility Criteria

To qualify as an industrial benefit offset, a transaction must meet the following criteria:

- a. It must be one which was clearly and demonstrably brought about by the bidder's or another eligible party's efforts

- 2 -

and must be one which would not have been entered into without those efforts. Furthermore, it must not be one which probably would have been entered into if the proposed project had not existed.

- b. It must be implemented after issue of the RFP and must be completed over the period of the contract. A grace period may be negotiated separately.
- c. In the case of an offset purchase of goods, the goods must be fully manufactured goods as identified by Canada's Standard Industrial Classification Manual, Division E-Manufacturing, Major Group 15 to Major Group 39 inclusive, with the exception of Major Groups 25, 27, 36 and 37 (copy attached).
- d. The extent to which the purchase qualifies will depend on the amount of Canadian content in the proposed transaction. If the Canadian (value added) content is less than 60 per cent of the total content in the proposed transaction, then the purchase will not qualify at all; if the Canadian (value added) content is greater than 60 per cent in the proposed transaction, then the value of the actual Canadian content will qualify.
- e. In the case of an investment or Joint Venture, the investment or Joint Venture must be:
 - (1) one which is in a facility or project which fosters the development of advanced industrial technology and manufacture, and
 - (2) minimize excess capacity and plant closure(s) and satisfy long term regional development and participation, and
 - (3) one which will qualify to such extent and such amount as is agreed upon in each case by the IB authority and the bidder. If the parties fail to agree after negotiating in good faith, then the decision of the IB authority shall be final.
- f. In the case of a transaction involving an industrial benefit credit for technology transfer, the following criteria for eligibility shall apply:
 - (1) technology must be current and proprietary in nature. State-of-the-art technology is preferred;
 - (2) transferror must have available all information (drawings, methods of application, etc.) related to the technology transferred;

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- (3) transferror must make available engineering and technical advice and assistance related to the technology transferred;
 - (4) technology must be exploitable in terms of access to world markets; and
 - (5) credits shall be given, based on the resulting export and import replacement sales from the forenoted transactions.
- g. The extent to which each transaction shall qualify shall be based on and limited to valid orders and/or contracts delivered by the end of the industrial benefits period(s) and will only qualify if all terms and conditions of the order or contract are consistent with normal business practice. Provision will be made for the deletion of cancelled or terminated contracts, and in certain circumstances for deletion where the full price has not yet been paid.
- h. Where the Minister of DRIE considers it to be of benefit to Canada to do so, the Minister of the Department of Regional Industrial Expansion (DRIE) may allow, in whole or in part, any purchase, acquisition, business venture, or other participation or investment by the bidder to qualify as a Canadian industrial benefit.

Additional Criteria

Amounts claimed as industrial benefits must exclude:

- a. the value of materials, labour and services imported into Canada;
- b. the amounts of all Canadian customs duty or Canadian excise taxes;
- c. all amounts of all non-Canadian customs, import or administration duties;
- d. all transportation costs except the cost of transportation via Canadian carriers;
- e. the value of goods and services with respect to which credit has been received by the bidder, his partner or any of its suppliers as an industrial benefit to Canada under any other agreement;

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- f. raw material and semi-processed goods;

Industrial benefits may include:

- a. industrial benefits implemented by the prime contractor, its subcontractors and its affiliated or associated companies if they meet the eligibility criteria; and
- b. purchases from Canadian industry by foreign governments if they meet the eligibility criteria and are allocated by the foreign government to a subcontractor in that foreign country, to claim as an offset.

Activities

The following are the types of activities bidders are encouraged to consider:

- a. ensure that proprietary products, systems or other goods to be produced in Canada can be sold to other countries by the Canadian producer;
- b. involvement in Canada in any of the following:
 - (1) the design, manufacture, assembly, systems management, or the integration of the equipment to be procured; and
 - (2) the integrated logistics associated with the system selected.
- c. transfer of technology to a Canadian firm by any of the following means:
 - (1) the design and development of new systems for defence or commercial applications;
 - (2) the provision of new technology which will improve the manufacturing of present product lines; and
 - (3) provision of licences which will allow the manufacture of new products.
- d. investment in Canada for example:
 - (1) developing joint ventures with Canadian firms,
 - (2) enhancing present facilities,
 - (3) establishing new manufacturing facilities or capacity which will not lead to excess capacity, but will strengthen and enhance the Canadian industrial base.

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- e. the placing of purchase contracts for Canadian goods or services or including Canadian firms in programs which have world market potential and result in export sales of Canadian products;
- f. assistance to Canadian firms in such areas as management techniques, technology enhancement, productivity improvement or marketing;
- g. establishment of Canadian firms as sole source or co-producers of major sub-systems or components for new or existing products;
- h. conducting in Canada applied research and development;
- i. the distribution of industrial activities among the designated regions of Canada.

Agreement to undertake activities not listed above but which offer substantial economic benefit may be included.

Proposal Evaluation Factors

The overall objective of the evaluation is to identify the strengths and weaknesses of each proposal, and to determine the best overall IB package for Canada.

The IB evaluators will examine the bid proposals with a view to:

- a. assess the bidder's long term plans as pertinent to the project;
- b. evaluate the proposed IB undertakings;
- c. assess the bidder's ability to achieve the proposed IB undertakings; and
- d. assess the risks associated with implementing the proposed IB undertakings.

The evaluation of the IB proposals will take into consideration not only the quantitative but also qualitative and risk aspects as pertinent to:

- a. comprehension - does the proposal demonstrate a full understanding by the bidder of the RFP?
- b. competence - does the bidder have previous experience in providing IB transactions?

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- c. capability - does the bidder have the ability to achieve IB commitments (e.g. facilities, resources, organization)?
- d. compliance - does the proposal demonstrate a commitment, including liquidated damages, by the bidder?
- e. effectiveness - does the bidder's long term plans indicate reasonable probability of achievement?
- f. regional participation - does the proposal demonstrate a commitment to the designated regions of Canada?
- g. risk - does the IB transaction(s) offered negatively or positively impact the overall program?

Specifically, IB proposals will be evaluated on in-vehicle or in-project content and the Canadian (value added) content in offset purchases, the transfer of technology and the resultant sales of goods and services from this transfer; investment and new ventures; regional participation; and implementing/managing the IBs plan and IB proposals and commitments.