

***TM-01-93***  
***Proposed New Patrol Jacket***

***By W.V. Harper and K. Don***

**TECHNICAL MEMORANDUM**

**Submitted by  
Edmonton Police Service**

**April 1992**

NOTE: Further information  
about this report can be  
obtained by calling the  
CPRC information number  
(613) 998-6343

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## **SUMMARY**

### **New Patrol Jacket Evaluation**

**Edmonton Police Service conducted an evaluation and field testing of a new patrol jacket from Nine-One-One Outerwear, the newest division of CAD's Enterprises Ltd. in Saskatoon, Saskatchewan.**

**The outershell material is Entrant which is a moisture permeable fabric that is waterproof. It allows perspiration vapour to escape from within. 3M Thinsulate comprises the insulating material in a removable liner. The uniforms are custom made.**

**After a lengthy evaluation period through various weather conditions, the field testing results were very positive. Suggestions for improvement were offered, and the uniform has been altered accordingly.**

## PROPOSED NEW PATROL JACKET ANALYSIS

Based on the attached analysis done by Kim DON of Organizational Studies, it would appear that our proposed new Patrol Jacket meets the needs of the Edmonton Police Service. Notably those who tested the new item largely concluded that the jacket:

- (1) Met their needs
- (2) The entrant shell material accepted rough treatment while being waterproof and windproof.
- (3) The jacket was suitable for all-season wear but should be upgraded from a 200 to 300 weight thinsulate lining for protection from intense cold.
- (4) The jacket should have a borg collar.
- (5) The jacket fit well at the waist and neck.
- (6) Jacket had sufficient pockets, but the waist pockets were not large enough to hold gloves.
- (7) An elastic bomber style jacket is preferred over existing item being worn by Edmonton Police Service at the present time.
- (8) The jacket, in conjunction with thinsulate trousers, could be used to replace the present parka if thinsulate is upgraded as per No. 3 above.
- (9) Button fastening device on jacket is unsuitable in that buttons break off.

It will be very easy and inexpensive to increase the thinsulate in the main body of the jacket from 200 to 300 weight, thus offering protection from -30 weather. 100 weight thinsulate to be retained in arms to afford maximum arm movement capability. Similarly we can go for a detachable borg collar for winter wear. Also easy to correct will be the anchoring of all buttons with metal fasteners.

Unfortunately the waist pockets cannot be enlarged in a bomber style jacket due to the shorter length of the jacket. We will have to live with this.

We would also be wise to pursue the suggestion that with windproof ski-style trousers of the type given to Traffic Section on trial, we may be able to cease issuing parkas to the membership. A follow-up trail could be run to assess this matter over Winter 1992/93. Such a move could have the positive effect of saving the Edmonton Police Service substantial monies while saving members from having to store and wear bulky and cumbersome parkas which tend to restrict officer mobility and agility.

The above assessments are based on a trial of 20 new style patrol jackets and 2 matching rainproof wind trousers. Request my special thanks be extended to Kim DON for her excellent assessment.

W .V. Harper,  
Quartermaster,  
Edmonton Police Service.

1992 April 14

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### **EVALUATION OF THE PATROL JACKET SURVEY**

The analysis summarized here highlight the results of 19 patrol jacket surveys forwarded to Organization Studies. Two of the surveys were completed by Sergeants and 17 by Constables. One of these members were from South Division, 8 from Downtown, 6 from Traffic, 1 from Court Division, 2 from the Dog Unit and 1 from Neighbourhood Foot Patrol.

There was some difficulty in analyzing the results due to uncertainty in the interpretation placed on some of the questions in the survey. Some of the questions have been recorded to facilitate data analysis while other questions that yielded inconclusive results were not included in the analysis.

When asked whether they believed that the jacket was "acceptable as is" the group responded as follows:

	Count	Percent
strongly agree	4	21%
somewhat agree	8	42%
somewhat disagree	5	27%
strongly disagree	2	11%

The results suggest that 28% felt that the jacket was not acceptable as is while the remaining 73% felt that they could accept the jacket as is. It was difficult analyzing what this question actually means to the group since two members who disagreed with this statement had not stated any criticisms of the jacket.

With the exception of one member, the group was in agreement that the present style of the jacket meets their needs (17/18). One member who liked the jacket indicated that he would prefer an all leather jacket and would be willing to defer the cost of an

all leather jacket out of his own pocket. Another member felt that the “leather trim on the cuffs and pocket serve no functional purpose as far as appearance; there was not enough leather to make any difference”.

Only one member felt that the jacket restricts his movement. This is the same member who indicated that the jacket style did not meet his needs.

Six out of 18 members felt that the jacket hampers access to their equipment. These members were more likely to state that they felt that the present jacket was too long. Some comments were that the jacket tended “to billow out in the mid-section” and that “the elastic bottom of the jacket tended to ride up”. Some members suggested that the jacket should be at the same level as the Sam Browne. One member felt he would like to see “zippers put on the sides so he could access his equipment more easily”. Another suggestion was that waistband could be secured onto the Sam Browne via velcro or snaps to prevent the jacket from riding up.

The group was in agreement that the shell material was acceptable (18/18). The majority of the members surveyed (15) felt that the jacket was just the right length while 4 members felt that the jacket was too long.

Most members felt that the jacket was acceptable as an all-season coat (17/18), and provided adequate protection from the cold (16/18), rain (16/18), and wind (18/18). The majority of members also felt that the jacket should have an optional Borg collar (15/18).

Most members stated that the jacket fit well on the waist (16/19), collar (15/18), sleeves (17/17), and cuffs (16/18).

All members somewhat or strongly agreed that the number of pockets was ok (19/19). With the exception of one member, those surveyed felt that the location of the pockets were ok (17/18). The main criticism of the pockets was that they were “not deep enough to store issue gloves within” (2/19).

Comments on the lining were very positive. The majority of members somewhat or strongly agreed that it was acceptable (18/19), and easily removed (16/19). Only 8 members felt that the lining should be florescent.

All members somewhat or strongly agreed that an elastic style bomber jacket was preferred (19/19).

Only one member answered the questions on the trousers. This member felt that the trousers were acceptable, and the style met his needs. This member also felt that the length was just right. The shell material was acceptable, and that the trousers provided adequate protection from the cold, rain/snow, and wind. The trousers also fit him well on the waist, legs and cuff area.

Three additional questions were added to the survey to determine whether the jacket could replace the parka, whether it can stand up to rough wear, and to determine if the florescent liner had ever been worn by a member as a traffic vest. Overall, we found that the majority of members surveyed felt that the jacket combined with the thinsulate trousers could replace the present parka (10/16). However, 6 members surveyed indicated that the jacket should have a warmer liner for -30° weather.

All members of the group felt that the jacket could stand up to rough wear (16/16). No members surveyed had worn the florescent liner as a traffic vest (0/16).

Overall it would appear that the group felt that the jacket was a big improvement over the old patrol jacket. Nearly all the comments received on the jacket were very positive. Members said that they were “very impressed with the quality”, and that the jacket “was far better than our present issue”, and “is a big improvement over the old style”. The main criticism of the jacket was that the buttons fall off too easily.

Kim DON,  
Research Analyst  
Organization Studies

1992 March 31

**NOTE:** Main body thinsulate increased from 200 to 300 weight to accommodate request for warmer jacket, also buttons now anchored with metal rings with plastic devices.

## APPENDICES



PHOTOGRAPH 1 - Bomber jacket front view



PHOTOGRAPH 2 - Bomber jacket winter Borg collar up



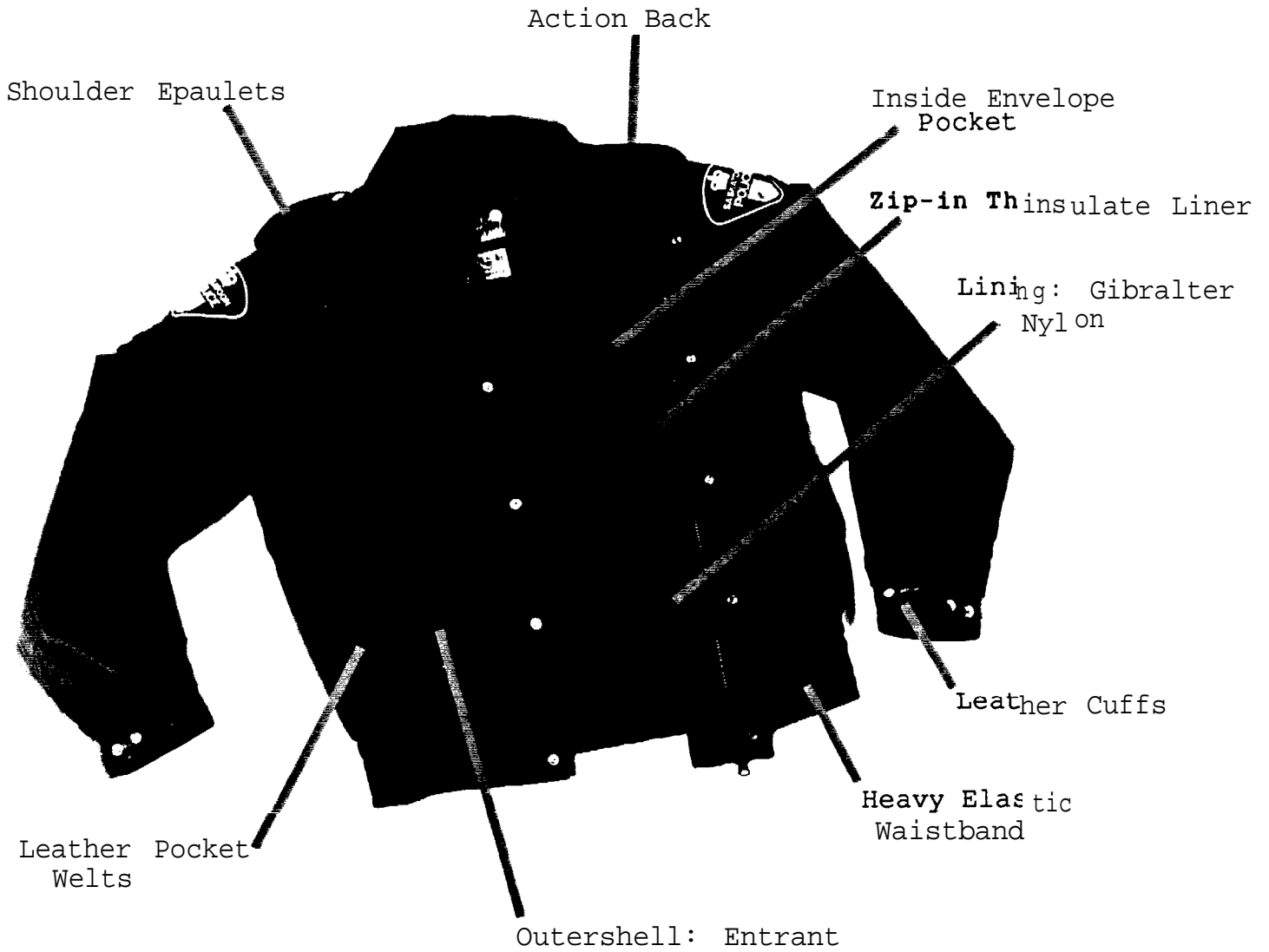


PHOTOGRAPH 3 - Bomber jacket with winter lining and Borg collar



PHOTOGRAPH 4 - Bomber jacket Borg collar up

Police Officers Insulated Bomber





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## INFORMATION SHEET

Nine-One-One Outerwear is the newest division of Cad's Enterprises Ltd., a 17-year old Saskatchewan based manufacturer, with production facilities in Saskatoon.

Nine-One-One was created in part, from local police, fire, and ambulance departments who required custom uniform jackets. Major specifications requested were that these new jackets be lightweight, waterproof, available for year round wear, and durable enough to stand the test of time, **in** a sometimes very physical atmosphere.

The new fabric chosen for the outershell is Entrant™. Entrant is a moisture permeable fabric that is completely waterproof. This ingenious fabric will totally repel water from the outside, while allowing perspiration vapor to escape from within. To further enhance the capabilities of this fabric, all seams are heat seal taped during construction to block **off** icy winds and water. After all, why have a waterproof jacket that leaks at the seams.

Combined with a 3M Thinsulate removable liner, and new and clean designs, Nine-One-One is confident they have developed a line of outerwear that exceeds the strict specifications of all emergency services personnel.

Nine-One-One is above all a custom manufacturer. Each department's requirements differ. Whether your department is very large, or very small, allow us the opportunity to custom design to meet your needs.