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CPRC

CANADIAN POLICE RESEARCH CENTRE



CCRP

CENTRE CANADIEN DE RECHERCHES POLICIÈRES

TM-04-2000

AN EVALUATION OF THE RESQ DISC

By: Julie Graham
Canadian Police Research Centre

TECHNICAL MEMORANDUM

Submitted by
Canadian Police Research Centre

March, 2000

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

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HER MAJESTY THE QUEEN IN RIGHT OF CANADA (2000)
as represented by the Solicitor General of Canada.



SA MAJESTÉ LA REINE DU CHEF DU CANADA (2000)
représentée par le Solliciteur général du Canada.

EXECUTIVE SUMMARY

ResQ Disc is a throwable, floatable device, developed and manufactured in the United States. It is increasingly widely used by police, fire and rescue personnel for water rescues.

A number of these devices were purchased by the Canadian Police Research Centre and were distributed to several agencies for evaluation. The results of the evaluation are documented in this report.

SOMMAIRE

Le ResQ Disc est un instrument qu'on lance dans l'eau et qui flotte. Il est fabriqué aux États-Unis. De plus en plus de policiers, de pompiers et de sauveteurs l'utilisent pour effectuer des sauvetages dans l'eau.

Le Centre canadien de recherches policières a acheté un certain nombre de ces instruments et les a distribués à plusieurs organismes pour évaluation. Les résultats de cette évaluation sont décrits dans le présent rapport.

ACKNOWLEDGEMENT

The Canadian Police Research Centre would like to thank the following groups for taking part in the evaluation of the device:

Metropolitan Toronto Police Marine Unit

RCMP - S&R Coordinator - "G" Division (Northwest Territories)

RCMP - S&R Coordinator - "H" Division (Nova Scotia)
North Shore Search and Rescue, Tatamagouche, NS
Yarmouth County Ground Search and Rescue Team

RCMP - S&R Coordinator - "B" Division (Newfoundland)

Ottawa Carleton Regional Police Marine Unit

In addition, the Canadian Police Research Centre would like to thank W. (Bill) Bedford, formerly of the Community, Contract and Aboriginal Policing Branch of the RCMP, for his assistance in the development of the evaluation sheet and for the setting up of original contacts in the search and rescue area.



The ResQ Disc was developed in the United States in 1996. It is a throwable, floating rescue device with a considerable amount of line attached. It is designed to be thrown, like a frisbee, to anyone in distress in the water.

Initial information concerning the device included printed material and a video. The device is in use in many jurisdictions in the United States and is increasingly seen in Canada. Numerous newspaper clippings, copies of which were sent in the information package, attest to the popularity and widespread distribution of the device in the United States. The disc has played a vital part in a number of successful rescues.

It is a bright orange colour and is a relatively inexpensive, compact item which can easily be stored in a vehicle or boat.

The Canadian Police Research Centre purchased twenty-four of the discs and distributed them to six groups throughout Canada for evaluation and comment. Each group received the following letter and evaluation form.

EVALUATION OF THE “ResQ Disc”

The Canadian Police Research Centre (CPRC), working in conjunction with the RCMP Community, Contract and Aboriginal Policing, wishes to have the enclosed ResQ Discs evaluated by the Canadian police community and agencies involved in search and rescue work.

The evaluation should consist of two parts. Firstly, police officers and rescue personnel should practice with the ResQ Disc to become familiar with its use and, secondly, it should be deployed for possible operational use in your work area.

The evaluation period will be from December 1998 to 31 July 1999. This will allow evaluation of the device in various climatic conditions.

Evaluation forms are included. We ask that you complete a preliminary evaluation at the end of February and a final evaluation at the end of July 1999. Please feel free to expand on any of the evaluation topics and, if possible, cite any specific incidences of its use.

It will not be necessary to return the discs to CPRC at the conclusion of the evaluation.

If you have any questions, please do not hesitate to contact me.

I look forward to receiving your responses.

Julie Graham
Project Manager
Canadian Police Research Centre

EVALUATION FORM FOR THE "RESQ DISC" DEVICE

EVALUATION CRITERIA

EQUIPMENT ITEM	Excellent	Very good	Good	Fair	Poor	Not applicable
1) Effectiveness of equipment (for intended purpose)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) Ease of use /Manoeuvrability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Compatibility with other equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4) Colour	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5) Weight / Size	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6) Comfort	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7) Durability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8) Maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9) Overall rated performance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10) Test Conditions (use other side of form if required)

11) Additional comments (including any precautions, warnings/cautions - use other side of form if required)

PLEASE RETURN THE FORM TO:
 CANADIAN POLICE RESEARCH CENTRE
 P.O. BOX 8885
 OTTAWA, ONTARIO K1G3M8
 ATTN: JULIE GRAHAM

RESULTS OF EVALUATION

In some cases, completed evaluation forms were returned and, in some instances, comments were returned by letter or by E-mail messages.

Twelve evaluation forms were returned. The following is a summary of the results of the evaluation forms.

EQUIPMENT ITEM	Excellent	Very good	Good	Fair	Poor	Not applicable
1) Effectiveness of equipment (for intended purpose)	1	1	6	4		
2) Ease of use /Manoeuvrability	2	2	3	5		
3) Compatibility with other equipment	1	5	1	1	4	
4) Colour	8	4				
5) Weight / Size	2	3	3	4		
6) Comfort	1	3	4	1	1	2
7) Durability	2	4	3	2	1	
8) Maintenance	5	4	1	1	1	
9) Overall rated performance	1	2	5	3	1	
	(17)	(25)	(33)	(21)	(5)	

It must be noted that, when the forms were sent out, there was no definition of the terms used on the form. Each was open to the interpretation of the user.

SOME OF THE COMMENTS ABOUT THE DISC

“Upon receipt of the disks, we tested them locally and found them to be excellent. Our testing included man-over-board, taking a boat under tow (tossing a tow line using the disk and then pulling in a larger line, and get within 20 ft of shore and throw the disk over the stranded boat). All aspects were very impressive.

I have issued the disks to several detachments as well as to a fire department who tested them in ice rescue last winter and found them extremely effective.

Overall they are easy to operate, no instructions required, easily stored, do not tangle and readily accessible in boat or vehicle. They are good pieces of kit.”

“We appreciate the opportunity to test the RESQ Disc device. It has been tested under a wide variety of conditions. The common theme of the testers center around its effectiveness in windy conditions. The unit has good potential and I have attached the comments of one of the testers which I believe will be helpful.

The unit would serve as a very worthwhile piece of equipment. It has the added advantage of being relatively low cost and it takes up little storage space.”

“Throwing into the wind - works excellent. Throwing across or into the wind, the disc will curve, however it will travel to the end of the line.”

“Pool conditions: approximately 60 feet range throwing disc as recommended.
Accuracy varied - more practice at one particular time became more effective.
Would you retain expertise over long period of non-use?
Approximately 100 feet when thrown side arm - accuracy declined but range increased.
Weight of saucer - if victim accidentally hit would cause injury to head area.
Poly rope twisted and may be a factor in maintenance.”

“The ResQ Disc was tested on water, ice and land. We used test subjects in dry suits to simulate victims who were drowning or had fallen into an ice filled river. We also trained lifeguards on our lawn in tossing and retrieving the disc.

The ResQ Disc was easy to use but had three major flaws.

1. Difficult to throw into a moderate to strong wind
2. The line on the disc is too thin making it difficult to hold on to, or difficult to retrieve a victim.
3. The disc itself split in two when it hit ice or land.”

“They tried it for ice rescue and found that it has a tendency to bounce and come up at the casualty if not placed well, potentially striking the person in the head. The second observation was that for multiple rescuers scenarios, the necessity to have the rope wound the correct way for right hand versus left hand was a disadvantage.”

“The first test was done with 30 people who made over 300 throws. Our testers feel that the ResQ Disc would be good on a rescue if it dealt with a river but a throw rope would be better for open water.

Very windy - average toss went a max of 30 feet. Very difficult to pull through the water - disc has a tendency to dive to the bottom. Takes a very long time to rewind.”

“Disc doesn’t carry far enough with any wind because of lack of weight. Takes too much time to rewind cord once it has been thrown out. When retrieving disc it has a tendency to go below the water.”

“Calm and sunny - excellent. Slight breeze - excellent. Strong wind - not bad - needed two attempts to hit the target. Unit is kind of heavy. One should be cautious not to hit the victim with it while attempting rescue.”

“Hurts if you get hit by it.”

“Caution - assure rope is wound properly for you (left or right handed) before throwing. Sliding L/R indicator possible?

Know your limit.

Initial windoff of 20 feet is confusing to metric-oriented; 7 turns would be quicker, more precise.

For search and rescue weight and bulk reduction would be beneficial.

Doubtful many people could use the full 100 foot range and shorter rope would speed retrieval.”

“I would like to express our appreciation for the opportunity to participate in this evaluation, as well as for the ResQ Disc which I presume from your letter is to become a permanent part of our team’s equipment. If the situation ever arises, this could play a crucial part in a rescue. It appears to be a very useful device.”

SUMMARY

As can be seen by the foregoing comments, reaction to the ResQ Disc was mixed but certainly on the positive side.

Two areas of concern were noted.

1. The possibility of hitting the victim does exist but, given the alternative, this is not a reason to avoid use of the disc.
2. The use of the disc in high winds caused some difficulties. It would seem that the use of the device in the open waters of the North Atlantic is not quite so successful as in more subdued waters.

TO OBTAIN MORE INFORMATION ABOUT THIS PRODUCT

CONTACT:

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Las Vegas, NV 89103

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