Heroism Exposed

An Investigation into the Treatment of 1 Combat Engineer Regiment Kuwait Veterans (1991)

Special Report to the Minister of National Defence

October 2006

Yves Côté, Q.C.

Ombudsman

National Defence and Canadian Forces

Défense nationale et Forces canadiennes

Canada

Heroism Exposed

An Investigation into the Treatment of 1 Combat Engineer Regiment Kuwait Veterans (1991)

October 2006

Investigative Team:

Suzanne Belson
Brigitte Bernier
Aviva Farbstein
Brian Finn
Sheila Foy
Gary Furrie
Bob Howard
Mary Kirby
Leo McCloskey
Joe Sharpe

Table of Contents

Executive Summary 1
Background 1
Nature and Approach 1
Findings 2
Recommendations 4
Background 7
Heroism Exposed 7
Subsequent Health Concerns 8
Related Events 9
Focus of the Investigation 10
Approach and Methodology 10
Our Review 13
What Affected Soldiers Told Us 13
Environmental Exposure in Kuwait 13
Information that Soldiers Received 14
Treatment Following Deployment 15
Concerns Over Records 17
Croatia Board of Inquiry Recommendations (2000) 18
Deployment in Afghanistan 20
Analysis 20
The Kuwait Experience 21
The Afghanistan Experience 25
Documentation is Critical – and Important Gaps Remain 26
Summary of Our Analysis 31
Building a Culture of Trust 31
Summary of Findings 35
Conclusion and Recommendations 37
Annex A: Relevant Recommendations of the Croatia Board of Inquiry 41
Annex B: Figure 1 43
Annex C: Figure 2 44
Annex D: Letter to 1 CER Kuwait Veterans 45

Executive Summary

1 ## *Background*

2 This investigation began when Major Fred Kaustinen (retired) approached the Office of the Ombudsman on February 19, 2002, with concerns over the treatment of members of 1 Combat Engineer Regiment (1 CER) following their exposure to toxic environmental substances when they were deployed in Kuwait, eleven years earlier. He was Deputy Commanding Officer of 1 CER at that time.

3 According to Major Kaustinen, members of 1 CER were exposed to harmful substances both throughout their deployment and as a result of their heroic action on July 11, 1991, when an open-air ammunitions depot caught fire in the American compound contiguous to theirs, causing widespread injuries. During that emergency, members of 1 CER entered the compound at extreme personal risk to monitor the fire and assess the danger of further explosions over a period of hours as the situation was brought under control. Meanwhile, the unit's medical staff worked far into the night under extremely difficult and hazardous conditions to triage and treat approximately 1,200 American soldiers who had gathered in the Canadian compound, of whom approximately 400 were suffering from shock and wounds.

4 In addition to particular exposure as a result of this incident, the 1 CER deployment in Kuwait involved continual inhalation of thick smoke from Kuwait's burning oil wells, which had been torched by retreating Iraqi forces and which blackened the air throughout their six-month deployment, covering every exposed surface with oily residue. Adverse environmental conditions of the Kuwait deployment further included extreme summer heat (50° C) and the ongoing stress related to the dangerous work of clearing landmines.

5 According to the complainant, soldiers of 1 CER experienced significant health concerns in the years following their deployment in Kuwait. Their perception was that the Canadian Forces (CF) systematically ignored them, and that they failed to pay sufficient attention to members' legitimate concerns about possible links between their Kuwait deployment experience and their illnesses, such as constant headaches, emphysema, brain tumours and liver failure.

6 ## *Nature and Approach*

7 Major Kaustinen's complaint came more than a decade after the deployment of 1 CER in Kuwait and the Regiment's heroic activity in that theatre and the various environmental exposures that its members experienced there. Over

that period of time, three public developments contributed to this investigation, namely:

8 • Widespread international concerns over the health impacts on personnel who had served in the First Gulf War, with the emergence of an array of symptoms that came to be called "Gulf War Syndrome".

9 • Public concerns over the environmental exposure of Canadian peacekeeping forces who served in Croatia, and the resulting Croatia Board of Inquiry from 1999 to 2000.

10 • Media allegations that 1 CER veterans of the First Gulf War were suffering from an unusually high incidence of cancers and other sicknesses as a result of that deployment.

11 In June 2003, my predecessor, André Marin, launched an investigation into the Department of National Defence's and the Canadian Forces' (DND/CF) response to members who may have been exposed to harmful environmental hazards while deployed. As my predecessor stated when he launched the investigation: "This investigation is intended as an in-depth examination of the treatment of members and their families once the issue of illness had been raised." He went on to say, "The primary focus of the investigation remains the treatment of 1 CER members following their exposure in Kuwait in 1991."

12 It is important to note that the investigation was *not* an examination of potential causes of illnesses, and *not* a review of the health consequences of the Kuwait experience. Rather, its scope was limited to the CF's systemic treatment of persons expressing concerns about having been exposed or likely to have been exposed in theatre and afterward.

13 In addition to the report of the Croatia Board of Inquiry, investigators collected and analyzed documentation pertaining to policies and procedures (medical, operational, governmental and non-governmental) that address preparing for, dealing with and following up on incidents of potentially hazardous exposures, including forms and questionnaires. For comparison purposes, the relevant policies and procedures of foreign military forces were reviewed (including, in particular, those of the U.S. forces). The interview program of the investigation was extensive, including more than 350 one-on-one interviews, 261 of which were with 1 CER veterans of the Kuwait deployment.

14 *Findings*

15 First of all, I find that members of 1 CER suffered environmental exposure of various kinds during their deployment in Kuwait. Their legitimate concerns over the health consequences of that exposure went largely unrecognized after

they returned home. For this reason, the recommendations that follow begin by recognizing them, and ensuring that any members with outstanding documentation problems regarding environmental exposure are well served.

16 Further, I will write to all known members of 1 CER, expressing my own admiration for their exemplary service in Kuwait, and provide them with a copy of this report. I will also encourage them to contact my office in the event of continued documentation difficulties regarding their service and exposure in Kuwait. When any one of them contacts my office, we will do absolutely everything we can to assist.

17 I also find that DND/CF has made major improvements in the assessment, management and documentation of environmental exposures – particularly since the Croatia Board of Inquiry of 1999. Indeed, on a technical level, the environmental assessment work, and consequent planning and equipping of our military personnel, is now second to none among Canada's allies. This is commendable.

18 However, communications and documentation issues remain and they must be addressed. Specifically, DND/CF remains reactive with respect to communicating environmental and health risks to its personnel, both in theatre and post-deployment. There appear to be cultural reasons for this reactive approach. However, the risk to DND/CF of continued failure to engage in such active communication is loss of trust on the part of its members. Change in this area is of *critical* importance.

19 Regarding documentation, this investigation found that these problems are significant because they make it more difficult for Canadian veterans to obtain disability benefits. Fortunately, the current Health Services Policy 4440-12 addresses the issue in part; it states:

"*Details of the [Environmental and Industrial Health Hazards] or [Public Health Concern] incident should be recorded in individual medical records if:*

a. The exposure or suspected exposure is raised as a concern during a clinician-patient encounter, or

b. The [Health Care Provider] determines, in consultation with [Director – Force Health Protection] as necessary, that a credible exposure occurred or could have occurred, and the exposure or potential exposure was of the type and degree to be of potential health significance." (article 36)

Also, we have found that the fact that DND/CF cannot, with certainty, account for every person who has served in a particular deployment is a systemic impediment to the organization's ability to communicate with veterans of a specific campaign, and to track and analyze health outcomes over time.

20 As a result of this investigation, I make nine recommendations to the Minister of National Defence and to the Chief of the Defence Staff, as follows:

21 *Recommendations*

22 1. The exemplary service of 1 CER personnel in Kuwait deserves formal recognition above and beyond unit recognition, which is not an individual award. In particular, DND/CF should formally review the heroic actions taken by 1 CER members during the Camp Doha incident, and, through the Canadian Forces Honours and Commendations Advisory Committee (CFHCAC), should consider individual awards or commendations at a level commensurate with the degree of heroism displayed during the incident.

23 2. The medical files of all 1 CER members who served in Kuwait (including members who have left DND/CF) should be reviewed to ensure that they contain explicit reference both to service in that theatre and exposure to smoke from burning oil wells.

24 3. DND/CF should create a well-publicized hot-line (or similar mechanism) for a minimum of three months to receive, follow-up on and resolve any outstanding concerns of 1 CER members with respect to their environmental exposure in Kuwait in 1991.

25 4. DND/CF should ensure that it has the ongoing ability to produce complete and accurate lists of all personnel deployed on each mission, including reservists and "augmentees" assigned to the mission.

26 5. A form that remains on the medical file of each deployed individual should contain reference to every deployment in which that individual has served. (The Croatia Board of Inquiry made the same recommendation, which was not accepted at that time.)

27 6. The medical file of each deployed individual should contain reference to any environmental exposure he or she has sustained in the course of each deployment – whenever such exposure has been identified by DND/CF through an assessment.

28 7. Individuals should be encouraged to file Declaration of Injury or Illness Forms (CF98) to record environmental exposures that cause them concern, and a copy of such forms should be retained on their medical files.

29 8. DND/CF should review its current standard questionnaire, CF 2078, with a view to better address occupational health issues, including members' concerns about potential health exposure.

30 9. Finally, and most importantly, DND/CF should take concrete steps to build a culture of trust with respect to environmental exposure and the health of its personnel by implementing the above recommendations and through ongoing and proactive communication with Regular Force and Reserve members regarding measures taken (a) to manage the risks associated with environmental exposure, and (b) to support individuals and their families by acknowledging their concerns about health issues and by providing them with accurate and timely information about what is known and not known about the cause of their condition.

31 As always, I look forward to the response of the Minister and the Chief of the Defence Staff to the recommendations in this report. A follow-up review of the progress on the implementation of our recommendations will take place six months following the public release of this report.

Background

32 This investigation began when Major Fred Kaustinen (retired) approached the Office of the Ombudsman on February 19, 2002, with concerns over the treatment of members of 1 Combat Engineer Regiment (1 CER) following their exposure to toxic environmental substances when they were deployed in Kuwait, eleven years earlier. He was Deputy Commanding Officer of 1 CER at that time.

33 The mandate of the Ombudsman does not extend to investigating events that occurred before the date on which the office was created – June 15, 1998 – unless the Minister deems such an investigation to be in the public interest. My predecessor recommended to the then Minister of National Defence that a special investigation should be launched in this case. The Minister accepted the Ombudsman's recommendation.

34 *Heroism Exposed*

35 According to Major Kaustinen, members of 1 CER were exposed to harmful substances throughout their deployment and, in particular, as a result of their heroic action on July 11, 1991, when an open-air ammunition depot caught fire in the American compound contiguous to theirs, causing widespread injuries. During that emergency, members of 1 CER entered the compound at extreme personal risk to monitor the fire and assess the danger of further explosions over a period of hours as the situation was brought under control. Meanwhile, the unit's medical staff worked far into the night under extremely difficult and hazardous conditions to triage and treat approximately 1,200 American soldiers who had gathered in the Canadian compound, of whom approximately 400 were suffering from shock and wounds.

36 The depot fire was a conspicuous example of courage and dedication to duty on the part of Canada's soldiers. For their heroism, the two Canadian engineers who entered the American compound and monitored the fire received a letter of appreciation from the American Army. Major Kaustinen was awarded a Chief of Defence Staff commendation for his "exemplary actions and leadership." In reviewing the circumstances surrounding the intervention of 1 CER during the Camp Doha incident, my investigators found that other soldiers were also deserving of recognition for service above and beyond the call of duty. These soldiers, however, were not considered for individual awards, and I believe they should be.

37 This serious incident shows Canada's soldiers performing at their best under harrowing conditions. It involved environmental exposure to potentially dangerous substances contained in the exploding munitions, particularly

depleted uranium (DU) – a radioactive by-product of nuclear reaction used in some weapons. A post-incident report commissioned by the United States government revealed that 600 rounds of 120mm DU armour-penetrating ammunition were present in the fire. (It was also learned later that, in addition to the fire, exposure to DU may have occurred when soldiers worked in proximity to destroyed Iraqi equipment, including abandoned tanks, which they visited out of professional interest, not realizing that these vehicles may have been contaminated with this substance.)

38 In addition to particular exposure as a result of this incident, the 1 CER deployment in Kuwait involved continual inhalation of thick smoke from Kuwait's burning oil wells, which had been torched by retreating Iraqi forces and which blackened the air throughout their six-month deployment, covering every exposed surface with oily residue. Adverse environmental conditions of the Kuwait deployment further included extreme summer heat (50° C) and the ongoing stress related to the dangerous work of clearing landmines.

39 In the fall of 1991, at the conclusion of their deployment, soldiers of 1 CER were presented with the United Nations peacekeepers' medal. On return to Canada, as a unit, the Regiment received the Chief of Defence Staff Unit Citation, which reads in part: "By its energy, ability and dedication, 1 CER won for itself and for Canada the respect of all contributing nations to UNIKOM[1] and, indeed, all parties with whom it has come in contact during its tour of duty."

40 *Subsequent Health Concerns*

41 According to the complaint, soldiers of 1 CER experienced significant health concerns in the years following their deployment in Kuwait. They felt that the CF systematically ignored them, and did not pay sufficient attention to the members' legitimate concerns about possible links between their Kuwait deployment experience and their illnesses, such as constant headaches, emphysema, brain tumours and liver failure.

42 To quote Major Kaustinen: "[S]oldiers of 1 CER were employed in extremely dangerous and otherwise unhealthy working conditions in Kuwait in 1991, their performance went significantly beyond the normal call of duty, and yet they have been systematically denied appropriate recognition and support from the CF."

43 The complainant further notes that, in his own case, "my own medical file says nothing of the conditions in Kuwait, even though we had a doctor with us. I've never had a post-deployment medical. Have never been contacted about

[1] UNIKOM is the acronym for "United Nations Iraq-Kuwait Observer Mission".

possible exposure to toxins…. None of the soldiers I've spoken to have been contacted by DND medical staff concerning the health effects of service in Kuwait, even though Gulf War Syndrome and depleted uranium are international issues."

44 ***Related Events***

45 Major Kaustinen's complaint came more than a decade after the deployment of 1 CER in Kuwait and the Regiment's heroic activity in that theatre and the various environmental exposures that its members experienced there. Over that period of time, three significant developments occurred which should be noted here.

46 First, concerns emerged over Gulf War Syndrome. As early as 1992, military personnel from several nations began reporting a similar range of health problems that included headaches, memory loss, anxiety attacks, gastro-intestinal illnesses, respiratory problems, and chronic fatigue – conditions that were widely publicized and studied, and which became known collectively as "Gulf War Syndrome."

47 There were (and still are) different views concerning Gulf War Syndrome. Clearly, something affected military personnel who served in the Gulf War. However, it could not be determined with certainty whether it was caused by environmental factors or whether it was attributable to some other cause. This ambiguity regarding its cause meant that many military personnel were reluctant to come forward with their symptoms for fear of being labelled mentally ill or being considered malingerers. Further, the ambiguity concerning the existence of Gulf War Syndrome may have led medical practitioners to assume that such symptoms were psychological in origin, and not due to environmental exposure.

48 Secondly, the experience of Canadian troops in Croatia raised public concerns. Between 1992 and 1995, Canadian Forces members served with distinction as UN peacekeepers in Croatia, and concerns with respect to environmental exposure arose both in that theatre and following that deployment. As a result of public concerns, in 1999 the Assistant Deputy Minister (ADM) Human Resources (Military) convened a Board of Inquiry under the authority of the *National Defence Act* (s. 43) to investigate whether Canadian soldiers who had served in the Canadian Contingent United Nations Protection Force had been exposed to environmental contaminants in such quantities as to pose a health hazard. This Board of Inquiry issued a report in 2000, which was unable to reach a formal conclusion with respect to their exposure, but made a number of recommendations on how DND/CF should manage and document environmental exposure in future.

49 <u>Thirdly</u>, in 2001, both the Ottawa Citizen and the Canadian Broadcasting Corporation ran stories suggesting that 1 CER soldiers were sick as a result of their service in Kuwait, almost ten years earlier. These media stories prompted renewed concern on the part of 1 CER veterans about the health effects of their deployment in Kuwait, and led Major Kaustinen to approach the Office of the Ombudsman with his complaint.

50 *Focus of the Investigation*

51 In June 2003, an investigation was launched into DND/CF's response to members who may have been exposed to harmful environmental hazards while deployed. As my predecessor stated when he began the investigation: "This investigation is intended as an in-depth examination of the treatment of members and their families once the issue of illness is raised." He went on to say, "The primary focus of the investigation remains the treatment of 1 CER members following their exposure in Kuwait in 1991."

52 It is important to note that the investigation was *not* an examination of potential causes of illnesses, and *not* a review of the health consequences of the Kuwait experience. Rather, its scope was limited to the CF's systemic treatment of persons exposed or likely to have been exposed in theatre and afterward. Thus, some of the recommendations of the Croatia Board of Inquiry are relevant to this investigation, since they deal with environmental contamination, the assessment of hazards and the handling of records. For that reason, the scope of this investigation included review of documents from the Croatia Inquiry, and examination of two deployments in Afghanistan since Croatia (Operations Apollo[2] and Athena[3]), to assess the degree to which recommendations from the Croatia Board of Inquiry have been put into practice.

53 *Approach and Methodology*

54 This investigation depended on a combination of document review and interviews to gather the information on which its findings are based.

55 In addition to the report of the Croatia Board of Inquiry, investigators collected and analyzed documentation pertaining to policies and procedures (medical, operational, governmental and non-governmental) that address preparing for, dealing with and following up on incidents of potentially hazardous exposures, including forms and questionnaires. For comparison purposes, the policies and

[2] Operation Apollo was Canada's commitment to an American request for ground troops to be deployed in areas of Afghanistan, including Kandahar, in early 2002.
[3] Operation Athena was a two-year commitment beginning in 2003 as part of the International Security Assistance Force, a NATO-led mission in Kabul, Afghanistan.

procedures of foreign military forces were reviewed (including, in particular, those of the U.S. forces).

56 The interview program of the investigation was extensive, including more than 350 interviews, 261 of which were with 1 CER veterans of the Kuwait deployment[4]. In addition, interviews were conducted with:

57
- Individuals who had contacted our office because they were concerned about how the CF had addressed their concerns over the possible health effects of environmental exposure.

58
- Members of the Deputy Chief of Defence Staff Branch including International Operations; Nuclear, Biological, and Chemical Operations; Engineering Operations; and Directorate of Strategic Intelligence.

59
- Members of the Director General Health Services organization including the former and the current Surgeon General.

60
- Staff from the Director General Environment group.

61
- Chief of Land, Maritime and Air Staff officers responsible for implementation of environmental policy.

62
- Other National Defence Headquarters staff involved in developing policy on environmental exposure or treating medical conditions resulting from environmental exposure.

63
- Field personnel responsible for the implementation of recommendations from the Croatia Board of Inquiry in the context of Operation Apollo.

64
- A representative number of Regular and Reserve Force personnel who returned from deployed operations on Operation Athena (Edmonton, Winnipeg, Gagetown, Halifax).

65
- Some members of 3 Princess Patricia's Canadian Light Infantry who served in Afghanistan on Operation Apollo.

66 An important documentation issue must be noted at the outset. Surprisingly and regrettably, we found no authoritative list of 1 CER persons deployed to the Kuwaiti theatre. While such data reportedly exists in the form of payroll information and accounts, privacy issues prevent its being used either for

[4] Approximately 340 1 CER members were deployed, although the precise number is not available.

investigative purposes such as this, or for other DND management purposes – such as tracking the health outcomes of persons deployed in a particular theatre. Lacking an authoritative list of persons actually deployed, our interview program may be incomplete. (I raise this issue here, in reviewing our methodology; however, I will return to it more than once in the course of this report because it becomes central to our findings and recommendations.)

Our Review

67 ## *What Affected Soldiers Told Us*

68 ### Environmental Exposure in Kuwait

69 UNIKOM was established in April 1991, following the forced withdrawal of Iraqi forces from Kuwait. Canada participated in that UN mission, initially by deploying approximately 300 members of 1 CER to clear unexploded ordnance from routes and positions, monitor the Demilitarized Zone, and establish command posts and UNIKOM Force Headquarters. 1 CER is the field engineer unit of 1 Canadian Mechanized Brigade Group. The Regiment has a long and honourable history, with distinguished service in both world wars, the Korean war, and subsequent major conflicts. At the time of the deployment to Kuwait, it was based in Chilliwack, British Columbia.

70 What they did in Kuwait was difficult, unglamorous and dangerous work. It involved exposure to potentially harmful environmental conditions of several types. In interviews with my investigators, members of 1 CER described exposure to:

71
- *Thick smoke from the burning oil wells*, coupled with the intense heat of the desert summer, with temperatures that were often 50° C. These temperatures made it difficult to sleep inside the converted, metal-roofed grain warehouse in which they were billeted so that many moved their cots outside, a move that permitted sleep but also involved further exposure to this smoke. When they woke, their exposed skin was covered with droplets of oil from the smoke that they breathed, day and night. One medic told investigators that the deployment was known familiarly as "the black lung tour;" one soldier told us that, depending on the wind direction, "if you come outside of the building [at noon] and didn't know what time it was you would think it was midnight."

72
- *Depleted uranium*, both from the munitions fire of July 11 and from sources such as abandoned Iraqi tanks, as already described.

73
- *Insecticides sprayed within living quarters* – a practice apparently informally adopted from the British to minimize insect-borne diseases. The building was reportedly not evacuated before spraying. While protective gear was worn by those doing the work (but *not* by building occupants), the Preventive Medicine Technician did not know what type of chemical was being used.

74 • *Unknown contaminants in a former Iraqi hospital*. About two months into the tour of duty, the 1 CER Construction Troop was tasked with renovating and repairing an abandoned hospital at Umm Qsar. The basement of this building was flooded and one soldier assigned to this work described "this black disgusting water, bloody bandages and needles floating in it and blood on the walls." One of the assigned soldiers recalls someone becoming sick after some of that water sprayed into his face; another remembers moving barrels that were rumoured to contain nerve gas.

75 **Information that Soldiers Received**

76 Members of the unit had legitimate and understandable concerns over this array of environmental exposures – although at the same time, a military culture that places a high value on teamwork and toughness may have influenced the degree to which such concerns were expressed. According to Major Kaustinen:

77 > Concerns about the smoke from the oil well fires should have gone to the medical officer; that is what should have been done. However, [they're a] proud group of people that aren't going to let their team down.... No team can go short… if one guy is not there, three cannot do it. Should we have been concerned? Absolutely. Drive your truck through this, and there's oil all over the windshield. Were we concerned? Not particularly.

78 Thus, it appears that members were concerned, but they kept their worries to themselves, and voiced them, if at all, to each other rather than in more formal ways. Through unofficial channels, it appears that some steps were taken to address concerns. For example, Colonel (retired) Dick Isabelle, the Commanding Officer of the unit at the time of the deployment, said in an interview that he asked the British Army detachment to conduct air quality tests at Camp Doha, where the Canadians were stationed. They reportedly informed him that air quality was within tolerable levels.

79 Another soldier told us that the Regiment was briefed regarding air quality, but not as a whole group, and that the chain of command told them that the air quality was "all right" in the short term because of the large size of the particulates. He said that they were advised that the air quality would be documented in their medical records. Similarly, many others informed my investigators that they were told that a letter or annotation would be placed in their medical files, saying that they had been exposed to oil fire smoke.

80 Therefore, it does not appear that any systematic program was in place to assess or explain environmental hazards, either before or during deployment.

81 Similarly, information regarding exposure to DU appears to have travelled through informal rather than formal networks. Some 1 CER veterans told us that the practice of climbing into destroyed Iraqi tanks stopped when they received informal information, probably from American troops, that those tanks had been hit by DU weapons, and that it might not be safe to approach them.

82 My investigators asked the former Contingent Commander, Lieutenant Colonel Michael McKeown, if any concerns pertaining to the use of DU were discussed at the United Nations operational headquarters level, and whether any instructions were given with respect to military forces inspecting vehicles, buildings and tanks that might have been destroyed by DU munitions. He said that the use of DU ammunition was not discussed, neither was it considered an issue. Indeed, he thought that if anyone had raised such concerns at the time, he would have said that DU did not pose a health risk, a view he based on his own academic background in nuclear physics.

83 Much later, in 2002, the CF Surgeon General issued a letter to as many 1 CER Kuwait veterans as could be identified and tracked, which was intended to reassure them regarding DU exposure. Almost none of our interviewees could recall that letter.

84 In one of our interviews, a Master Warrant Officer commented on members' knowledge of DU at the time, and the responses of their leadership:

85
> I think it put them under a fair amount of stress because they didn't know what to do. They had addressed the problems upwards to the chain of command and the info went back to Ottawa and it was still pending. Young soldiers were asking questions. We had several young female members. They were concerned about what effect it would have on future pregnancies. We couldn't answer them and I don't know if the medical officer could or not.

86 **Treatment Following Deployment**

87 In their interviews, my investigators heard many painful experiences, as some members described health issues – and, all too frequently, an inadequate response from DND/CF once they returned to Canada. Others described having concerns, but staying quiet for fear of adverse consequences to their careers.

88 Below are examples of what they told us regarding post-deployment respiratory problems:

89
- A Sergeant told my investigators that the majority of members were experiencing some type of respiratory problems when they returned to Canada. According to his evidence, the Regiment was placed on

remedial physical training and they integrated their running gradually, increasing distances over time. "I've jogged all my life," he said. "Up to that point, to do a 15 to 20 kilometre run was no big deal – we do that two or three times a week. To go from that, to not even being able to run around the block and feeling that you were going to throw out your lungs…." He felt that his health had deteriorated and he develops pneumonia each year.

90 • A Lieutenant said that a number of people returned with health concerns. In his words: "The guys were very concerned over their lungs, their throats and their chests…. concerned about what they may have been exposed to, particularly the water in the swamp" – his term for the basement of Umm Qsar Hospital. He told us that after returning to Canada he had asked the base hospital to conduct X-Ray testing of the lungs of his personnel, but the request was refused because medical personnel relied on studies conducted by the U.S. Army, which indicated that the exposure did not pose a problem.

91 • A Chief Warrant Officer said that his lungs gave out in Kuwait. He indicated that he was sent to the Kuwait hospital, as it was believed that he might have had a heart attack. He felt that he "was treated by his unit and chain of command as a disease and was outcast right from the start because of all the illnesses."

92 • A Sergeant said he had reported respiratory problems to the Medical Officer in theatre. On return to Canada he continued to experience respiratory problems along with night sweats and short-term memory loss. He said he reported his concerns but did not receive treatment until his spouse complained to medical staff – by which time his left lung was collapsed and his right was partly full of fluid.

93 • A Private told us that he reported coughing black mucous during his post-deployment medical. Within two or three months, the problems ceased, so there was no further testing. However, the condition recurred in 1996, at which time he was diagnosed with exercise-induced asthma – an assessment that left him dissatisfied since he had an attack when he was not engaged in physical exertion.

94 Others described headaches, seizures and other health issues:

95 • A Sergeant reported that he had a seizure three months following his tour of duty in Kuwait. He was treated at the time. In 1996 he was given a medical release – reportedly without explanation, beyond being told that his services were no longer required.

96 • Among other interviewees, two non-commissioned members said they experienced unexplained seizures. Both were placed on "medical category" and one member was medically released. The other member expressed concern because there is no further monitoring now that his seizures have ceased.

97 • A Corporal told us that he experienced migraines in Kuwait and continued to suffer from them post-deployment. However, he told no one (not even his spouse) until he suffered a seizure in 1994. He said that he had not reported the migraines for fear of damaging his career.

98 • A Sergeant told us that he had trouble sleeping on return to Canada, but did not report the problem for fear that it would affect his performance appraisals along with future postings. "Nobody would complain anymore," he said. "They would just suck it up and hide it."

99 • A former Private indicated to my investigators that he had experienced headaches during the third and fourth months of his deployment, and, despite medication, the headaches continued throughout the rest of his tour. He reported them during his post-deployment medical and was given the same medication. He stopped reporting the headaches because he could buy that particular drug over the counter and did not want to risk being labelled an "MIR[5] Commando" by his peers. The headaches continued, and in 1994 he took a voluntary release from the CF. In 2000 he had a seizure, which caused him to be hospitalized; he was found to be suffering from a benign brain tumour.

100 These are, as I said, painful records of profound personal suffering and uncertainty. As indicated above, we were successful in contacting and interviewing 261 of the 339 1 CER Kuwait veterans that we were able to identify. Of these, approximately one third said that they had experienced adverse health symptoms during and after their deployment, and twenty-four percent reported continuing but minor health issues at the time of our interviews. While the scope of this investigation does not include any attempt to identify the health outcomes of the deployment in Kuwait in 1991, investigators noted that eight respondents reported major health problems such as cancers or chronic bronchitis[6], and we know of one death attributable to cancer.

101 Concerns Over Records

[5] MIR stands for "Medical Inspection Room".
[6] There was one case of each of the following illnesses: meningioma, thyroid cancer, kidney cancer, skin cancer, migraine-stroke, chronic bronchitis, type 2 diabetes and epilepsy.

102 A number of former members of 1 CER told us of the difficulties they had experienced in applying for disability benefits from Veterans Affairs Canada (VAC) – primarily because they were unable to document the fact that they had served in Kuwait and had been exposed to smoke from the oil well fires. Those who had reported respiratory problems either in theatre or post-deployment expected to find documentation of their exposure in their medical files. Not all found such records.

103 One soldier described going to the unit medic when he discovered that an annotation regarding exposure to oil fire smoke was missing from his file. With the assistance of the medic he was able to reproduce the document from another soldier's file and make a declaration stating he was in the theatre of operation and had been exposed to the poor air quality. He was thus able to fill the gap in documentation. Another respondent faced the same problem, but was unable to pursue such a remedy because he had already left the CF and it was too difficult to locate the appropriate personnel.

104 Many others told my investigators that that same annotation was missing from their medical files. One respondent (a medical assistant) checked his own file in 1996 and found that the annotation was missing. He reported its absence to the chain of command and was instructed to check all relevant 1 CER medical files. He found that only five files contained that annotation.

105 Members also said that they feared that their chances of claiming disability benefits from VAC would be significantly reduced by this lack of medical records, should they ever be required.

106 *Croatia Board of Inquiry Recommendations (2000)*

107 We carefully reviewed the report of this Inquiry. Unlike this investigation, the Board was asked to determine the cause and effects of injuries arising from Canadian Forces' service in Croatia. The Board's results were inconclusive, but it was able to make a number of recommendations, some of which are highly relevant to the treatment of the medical concerns of 1 CER veterans, both during and after their service in Kuwait. (See Annex A for the recommendations made by the Board that are relevant to this investigation.)

108 The Board found issues in the Croatia theatre that were very similar to those revealed by our interviews with 1 CER veterans from Kuwait, specifically:

109
- No evidence of environmental assessment in advance of or during deployment to determine the nature of environmental risks to Canadian personnel and measures that should be taken to protect them.

110 • Poor communication with Canadian Forces members in theatre regarding environmental hazards or potential hazards, so that they lacked authoritative information and standard protective equipment and procedures that gave them confidence that they were protected.

111 • Inconsistent documentation of exposure on members' medical files.

112 • Inconsistent treatment of personnel and response to their health concerns after return to Canada.

113 • Inability on the part of DND/CF to document and track personnel actually deployed.

114 The Board of Inquiry's recommendations were comprehensive. Taken as a whole, they comprised a thorough program of environmental risk assessment and management before, during and after deployment, along with a comprehensive approach to medical care and record-keeping. Of particular interest to this investigation were the following recommendations:

115 22. If a member has been exposed to contamination, accurate information as to the type, duration, degree of exposure and any related health risks must be placed on the member's file based on clear directions.

116 25. Conduct more detailed medical examinations before and after deployments.

117 27. Ensure that those people with medically unexplained physical symptoms receive appropriate treatment.

118 28. Conduct periodic health surveys of retired and serving CF members with emphasis on those personnel subject to deployments.

119 29. Create an electronic health record including all CF members.

120 30. Annotate individual medical files to reflect all operational missions undertaken.

121 The chain of command accepted the recommendations of the Croatia Board of Inquiry, with the exception of recommendation 30. Therefore, the final step in our investigation was ascertaining the degree to which the environmental recommendations of the Croatia Board had been put into current practice. For that reason, my investigators interviewed approximately 20 members who served in Afghanistan, including a Commanding Officer. In addition, we interviewed extensively National Defence Headquarters staff responsible for implementing environmental policy, and reviewed key documents, including

Environmental and Industrial Health Hazard studies and related reports from Operations Apollo and Athena, analytical results and notices.

122
Deployment in Afghanistan

123 There were two deployments in Afghanistan during the time frame of this investigation. The first is known as Operation Apollo, and it took place early in 2002, when Canada responded to an American request for ground troops to be deployed in areas of Afghanistan. In February 2002, Canada deployed approximately 750 soldiers of the 3rd Batallion of the Princess Patricia's Canadian Light Infantry (PPCLI) Battle Group from Edmonton to serve in Kandahar. Soldiers of the 3 PPCLI Battle Group performed a variety of tasks during their six-month deployment, including airfield security, delivering humanitarian aid to the Afghan people and engaging in ground combat with Taliban and Al Qaeda forces.

124 The second deployment in Afghanistan is known as Operation Athena, a two-year commitment beginning in 2003 as part of the International Security Assistance Force (ISAF), a NATO-led mission in Kabul. The mission of ISAF was to help maintain security in Kabul and the surrounding areas so that the Afghan government and UN agencies could function. The Canadian contribution consisted of approximately 900 personnel, of which approximately 700 were deployed in Kabul.

125
Analysis

126 In light of both the recommendations of the Croatia Board of Inquiry and the research conducted by my investigators, I have developed a model (Figure 1) for the kind of comprehensive approach that I believe should be adopted by DND/CF in dealing with and documenting the issue of environmental exposure and medical care. I propose it as a guide for a truly comprehensive approach to the health of the men and women serving in Canada's armed forces, and as a checklist for assessing the completeness and integration of DND/CF's various systems.

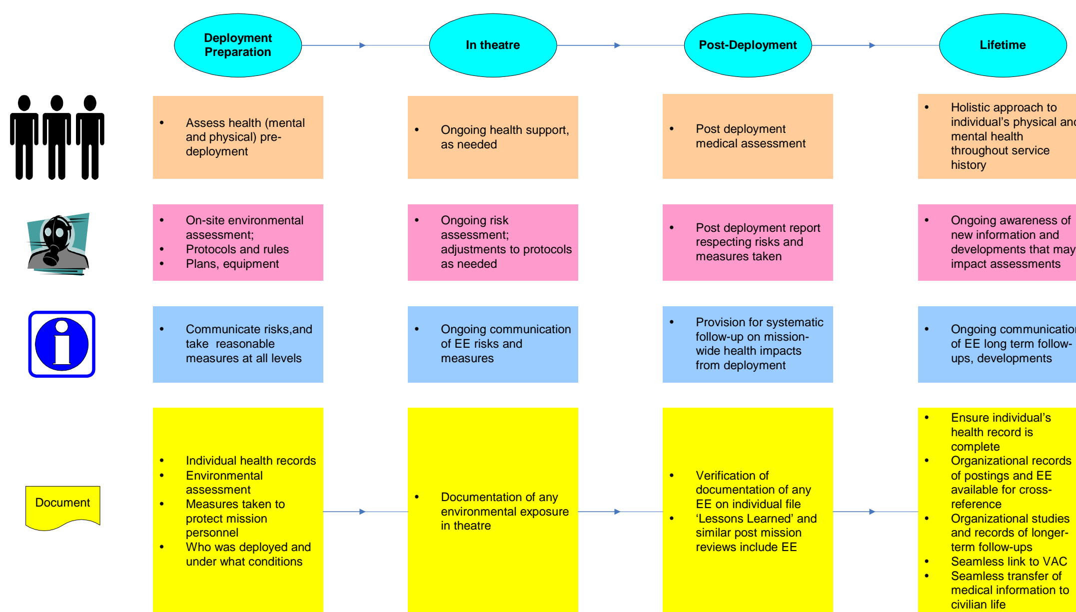


Figure 1

EE = Environmental Exposure

Note: For an enlarged version of this figure, please see Annex B.

127 The horizontal axis of this matrix identifies four phases in which DND/CF conducts and documents activities related to the health of individuals and exposure or potential exposure to environmental toxins. These phases are: preparation for deployment; operations in theatre; post-deployment procedures; and, finally, the overall care of individuals from recruitment to transition to civilian life.

128 The vertical axis of the matrix shows the specific focus of the various necessary DND/CF activities, in each of the four phases – namely, the individual Canadian Forces members; the environmental assessment of conditions on site; information requirements as a result of those environmental assessments; and documentation.

129 Using this model as an assessment tool, my investigators have documented a substantial improvement in DND/CF's approach to environmental exposure between the experience of 1 CER in Kuwait and the deployments in Afghanistan in 2002-2004 – although, as appears below, *there remains room for improvement in some key areas.*

130 The Kuwait Experience

131 *At the pre-deployment stage*, medical examinations were not consistently performed (partly because time frames for deployment were unexpectedly shortened), and mental health was not considered in such examinations.

Assessment and consequent planning with respect to environmental hazards was not done. DND/CF was aware that burning oil wells posed air quality issues, and some provision was made to protect personnel, with, for example, masks – but such measures were partial and not universally applied. Both adequate supplies of such equipment and protocols to guide personnel on the ground were lacking.

132 *In theatre*, there was a shortage of Preventive Medicine Technicians; some of these personnel were trained to perform water testing, but not air quality testing. (Later in the deployment they expanded their activities to include air testing – a fact that was not communicated to troops.) There was an absence of guidance and defined procedures for operating in the various environmental conditions described in our interviews. Authoritative information regarding risks and measures to be taken was lacking at all levels of the chain of command. Our interviews indicated that the lack of such information and protocols contributed significantly to the stress of members already enduring challenging conditions.

133 At his own initiative, the 1 CER medical officer administered a health questionnaire to members during deployment to provide baseline information in the event of future health issues. The questionnaire was intended to be placed in the individual's medical file. He also annotated the medical files of those deployed, indicating that the individual concerned had been exposed to poor air quality during the deployment. While some respondents believed that their exposure to DU would be similarly documented, this was apparently not done.

134 *Post deployment*, individual medical assessments were inconsistently performed. As already noted, several respondents reported that the annotation and questionnaire were later removed from their files. Indeed, we learned that medical officers will remove records not considered to be both medical in nature and official in origin. Conversely, administrative staff will remove medical information from administrative files, assuming that the record is already on the medical file.

135 We performed an organization-wide follow-up of significant issues. For example, the Surgeon General's staff monitored the Gulf War Syndrome issue (and later the DU issue) as concerns began developing in the international and national media. DND/CF took steps to inform affected veterans of the Kuwait deployment with relevant facts and support, specifically:

136

- In September 1992, the Canadian Forces Medical Service directed military medical personnel to exercise vigilance and to notify National Defence Headquarters if any Canadian cases of Gulf War Syndrome were to appear.

137 • In 1994, CF medical officers received detailed information and advice on recognizing and responding to symptoms.

138 • In 1995, the Surgeon General issued a letter to serving and retired CF members who had served in the Gulf, outlining actions that the organization would take for veterans who believed they were suffering adverse effects. This letter recognized the issue, and communicated the following actions that the CF would take: (a) provide a 1-800 information line for concerned veterans; (b) provide a Gulf War Registry for veterans experiencing problems; and (c) provide a Special Gulf War Veterans medical clinic at National Defence Medical Centre. These three initiatives were implemented between 1995 and 1998.[7]

139 • In 1996, DND established a Gulf War Illness Advisory Committee to advise the Department on health concerns of Gulf War veterans. Members included distinguished civilian medical authorities from across the country in a range of relevant fields, including environmental medicine, occupational medicine and psychiatry.

140 • Several studies have been conducted:[8]

141 o In 1995, as part of its response to concerns over Gulf War Syndrome, the Chief of Health Services commissioned an external expert, Dr. Anthony Miller of the University of Toronto, to conduct an epidemiological study of Canadian Gulf War veterans.

142 o As recommended by Dr. Miller[9], the Department commissioned a further independent survey of the health of Gulf War veterans by Goss Gilroy Inc., a consulting firm.

143 o Consistent with one of the recommendations of the Goss Gilroy study, in 2001, DND/CF and Statistics Canada conducted a linkage study to determine whether Canadian Gulf War veterans

---

[7] Between April 1995 and December 1997, 104 veterans were referred to the Ottawa Gulf War Clinic. By July 1997, calls to the toll-free information line associated with this initiative had stopped and the line was disconnected, having received 360 calls. A Gulf Veteran Medical Registry was discontinued in January 1998; it had registered 226 veterans. It is interesting to note that the total population of Canadian Gulf War veterans is 4,262.

[8] These studies have tended to find that the health of Gulf War veterans, including 1 CER members, compares favourably with that of the general population.

[9] The creation of the Gulf War Illness Advisory Committee in 1996 was also a recommendation of Dr. Miller's study.

had higher rates of death or cancer than other veterans or the general population.[10]

144 o In 2001, in response to renewed concerns over the health of 1 CER Kuwait veterans, DND/CF conducted A Rapid Epidemiological Assessment to determine if members of 1 CER had higher rates of illness (both life-threatening and non-threatening) than the general population.

145 • Since 2000, DND/CF has offered DU testing to veterans of any deployment, including Kuwait. (Take-up has been limited, with 228 veterans examined to date, none of whom have shown abnormal levels of DU contamination as defined by medical authorities.)

146 • Following media reports of health concerns regarding service in the Gulf War, the Surgeon General issued a letter on April 2, 2002, to 216 Gulf War veterans pertaining to the health risk at Camp Doha in 1991, and providing them with contact information should they have concerns about their health as a result of exposure.

147 • In 2003, the Post Deployment Health Section of DND/CF hosted an international conference on Gulf War health issues.

148 These actions show that, as an organization, DND/CF monitored developments with respect to the health after-effects of deployment, was interested in the health outcomes of its Gulf War veterans, and made attempts to provide significant information to them.

149 However, my investigators found that these efforts were undermined by lack of documentation and other issues, specifically:

150 • As mentioned above, DND/CF does not have (a) a complete and authoritative list of all persons deployed in Kuwait, and (b) listings of individuals whose deployment involved specific environmental exposures. Therefore, authoritative medical information issued in the years after deployment did not necessarily reach the intended recipients. (In fact, my investigators found that very few of their respondents were aware of having received the Surgeon General's 2002 letter concerning DU.)

151 • Further, individuals who had left DND/CF would not necessarily receive such follow-up information.

[10] A summary of this study, "The Canadian Persian Gulf Cohort Study Report," is available on the CF Health Services Site.

152 - It was left up to the individual to assess this information and take appropriate action. However, our investigators found that many respondents were reluctant to report health problems because good health is a precondition of service, and a significant health problem would constitute grounds for release.

153 - Information that reached its intended recipients did not necessarily have the intended result. For example, my investigators found a low level of trust of health information coming from DND/CF authorities among their interviewees. (Only three 1 CER veterans sought evaluation through the Gulf War Clinic – a smaller percentage participation rate than other parts of the Canadian Forces who served in the Gulf.) Yet, at the same time, respondents to our interviews indicated concern over the long-term health effects of their exposure.

154 **The Afghanistan Experience**

155 My investigators looked at the Operation Apollo and Athena deployments and found important changes both in the treatment of personnel and the approach to environmental risks at every stage of the process – i.e., pre-deployment, in theatre and post-deployment.

156 At the individual level, all Regular Force personnel are now screened both pre- and post-deployment. There may still be some systemic gaps: for example, it is possible that Reservists may be missed in this new policy. However, the improvement remains major.

157 Regarding environmental conditions: a thorough program of pre-mission environmental assessments was conducted, with on-site collection of samples on two separate occasions and at several locations for possible water, soil, air, radiation and building contaminants. These samples were analyzed in Canadian laboratories to determine possible health risks to personnel. No significant health concerns were identified, although high levels of airborne particulates were identified as potentially causing irritation. Appropriate medical bulletins were prepared and protocols created, including a summary medical bulletin concerning infectious diseases, which, as a result of this work, were identified as the greatest environmental risk facing Canadian troops. Both risks and preventive measures were well communicated to troops in advance of deployment.

158 On-site environmental assessment continued during deployment. Indeed, my investigators came to the conclusion that the quality of work done by DND/CF to protect Canadian military personnel is now superior to the environmental health programs of our allies.

159 However, insufficient information was supplied to members in theatre. When my predecessor visited the Operation Athena mission in 2003, many members at all levels had concerns about air quality in Kabul, and expressed doubts that they were getting the facts on potential risks. He brought their concerns to the attention of the Chief of Defence Staff. The CF Medical Group responded immediately with an information presentation about air quality in Afghanistan, and an article was published in the CF newspaper, *The Maple Leaf*.

160 It is too early to assess the degree to which DND/CF has changed its approach to the longer-term follow up and management of possible health impacts from these two deployments. However, complete documentation is critical to the organization's ability to perform such follow-up and, as the next section shows, serious gaps remain in DND/CF's approach to documenting environmental exposure.

161 Documentation is Critical – and Important Gaps Remain

162 Documentation is critical to all parts of our recommended matrix, and my investigators found that, despite the significant improvements recorded above, important documentation issues remain unresolved.

163 In examining documentation requirements, we adopted a results-based lens.

164 For the individual, we considered that the desired result should be:

165
- The individual member is confident that if he or she develops health problems as a result of a deployment, DND/CF and the Government of Canada will provide adequate support and care, including, where applicable, an appropriate disability benefit.

166 This result embodies a fundamental principle that must underlie the relationship between Canada and its military personnel: if you go on a mission healthy and return sick, Canada will take care of you and your family. It seems to me that this principle has an important corollary: the burden of proof for medical problems and disability claims should not lie with the Canadian Forces member alone. Our military personnel must not be left to their own devices. Rather, they must be confident that if things go wrong, they will be fully supported. Therefore, the system should make it as seamless and easy as possible for the individual who has served his or her country in its armed forces.

167 For DND/CF as a whole, we propose the following results, which are based on that same fundamental principle:

168
- The health concerns of members are supported in an integrated and responsive fashion, with the important objective that no one falls through the cracks; and

169 • The organization is able to monitor and assess the health outcomes of military deployments on a CF-wide basis over time, recognize trends and issues, and respond with appropriate action.

170 In order to perform this duty effectively and achieve these results, the organization needs a robust and integrated documentation system with:

171 1. Complete and authoritative listings of all individuals deployed on every mission;

172 2. Corporate records of the environmental assessments performed for each mission, along with protective measures taken;

173 3. Complete health records for each member, which include a record of each deployment and, in addition, a record on the individual's medical file of environmental exposure during each deployment;

174 4. A seamless and complete transfer of medical information when the member moves from CF service to civilian life; and

175 5. A seamless documentation link to the process by which disability benefit decisions are documented and made by VAC.

176 Below is what we learned about each of these documentation requirements.

177 *1. Complete and authoritative listings of all individuals deployed on every mission.*

178 We found that such a listing of personnel deployed was not available for Kuwait, and the Croatia Board of Inquiry noted the same problem with concern. More than a decade later, gaps still remain with respect to the deployments in Afghanistan. DND/CF cannot identify with confidence who was deployed, and for what time period, for every mission. Members of the Reserve Force or other "augmentees" attached to deployed units present additional challenges. Thus, disappointingly, this basic documentation requirement is not yet fully met.

179 *2. Corporate records of the environmental assessments performed for each mission, along with protective measures taken.*

180 Now that DND/CF is performing these assessments and taking measures systematically, such corporate records should be maintained centrally and made available at need. And in fact, my investigators have found that all comprehensive assessments conducted in theatre are now being kept corporately in Health Force Protection on a permanent basis, where they can be accessed by VAC when needed, in the event of a benefit application

linked to an environmental exposure. Such "comprehensive" assessments are significant undertakings, and other assessments are also conducted in theatre, depending on changing circumstances and needs. My investigators were assured that plans are underway to ensure that records of all such assessments in theatre are transferred and maintained in that office, where they can be accessed by VAC when required.

181 This will provide authoritative baseline information against which individual claims can be validated.

182 3. *Complete health records for each individual, which include a record of each deployment and, in addition, a record on the individual's medical file of environmental exposure during each deployment.*

183 DND/CF's new approach to pre- and post-deployment screening ensures that individuals are fit for deployment and provides the basis for the documentation requirement set out here.

184 My investigators have verified that, at the present time, the following documentation measures are in place:

185 • All medical assessments are documented on the individual's medical file.

186 • DAOD 5018-2 issued in 2002, directs the Commanding Officer of a unit to ensure that in circumstances where exposure or suspected exposure has taken place, a permanent record of such exposure shall be made on a CF98 "Report of Injuries and Exposure to Toxic Substances". Unfortunately, the directive does not specifically address circumstances where an individual himself or herself has concerns about having been exposed to what he or she considers a dangerous substance. The directive does not say that in such circumstances, the individual should be encouraged to fill out a CF98. In addition, the present distribution list for the CF98 does not specify that a copy of the form should be placed on the individual's medical file, making it necessary to access two sets of documents to apply for compensation benefits. Individuals may add a statement expressing concern over an environmental exposure to the CF98, although at the present time, this form is placed only on their personnel file.

187 • All individuals are required to complete a pre- and post-deployment questionnaire, but this questionnaire does *not* include questions about environmental exposure.

188 • In the event that DND/CF has conducted an investigation in theatre concerning an incident of environmental exposure, reference to that exposure is included on the medical file of every individual known to have been exposed.

189 Thus, if a medical assessment includes environmental exposure, there will be a record on the individual's file. Similarly, if DND/CF conducts an investigation in theatre concerning an incident of exposure, there should be reference on each exposed individual's file. However, two key pieces of information will still be missing from the medical file to support subsequent requests for disability benefits:

190 • The record of the individual's deployment history.

191 • Any CF98 form filled out by a member and recording a concern over environmental exposure.

192 Ensuring that those two pieces of information are placed and retained on medical files will provide enhanced protection to the individual and support a future benefit application.

193 Further, the idea of adding specific questions regarding environmental exposure to the standard post-deployment questionnaire was tested, debated and rejected by DND/CF medical authorities in 2003, partly over concerns that such questions could actually damage an individual's case for benefits, in the event that he or she failed to identify an exposure that later proved harmful, and partly out of the concern that some individuals might develop a self-diagnosis of ill health from the process of filling out the questionnaire.

194 With these three changes to the medical records of individuals – i.e., the record of deployments, the voluntary CF98 regarding environmental exposure, and the post-deployment questionnaire that includes questions on environmental exposure – I believe that the documentation basis for supporting an individual's future benefit application will be on much firmer ground, if and when it is needed.

195 Missing annotations on environmental exposure were a significant concern for 1 CER veterans. In two cases, members experienced a delay of three years before missing information was obtained and the claims were accepted. If fully implemented, these changes would prevent such problems in future.

196 *4. A seamless and complete transfer of medical information when the member moves from CF service to civilian life.*

197 My office has received at least 20 complaints from members who have experienced long delays in obtaining their medical files after release from the CF; in some cases, they have been forced to make a request under the *Access to Information* and *Privacy Acts* to gain access to their own medical files, in order to apply for disability benefits. This is not acceptable. Individuals who have served their country deserve better support than this.

198 Several years ago, in a case involving a member who reportedly developed skin diseases after a tour in Iraq, this office recommended that "CF members should be provided with a copy of their medical records within 30 days of their release from the CF."

199 This investigation has ascertained that DND/CF has indeed made a significant change in the transfer of medical records upon release. I understand that, as part of the standard release procedure, members are now encouraged to seek their medical files at that time – although the decision remains the responsibility of the person. In the event that someone chooses not to request his or her medical records at the time of release, they can still be accessed at a later date through application to the DND Access to Information Office. In either case, a form is provided in the event that the individual believes that something is missing from the file.

200 I think that this reform adequately addresses the issue.

201 5. *A seamless documentation link to the process by which disability benefit decisions are made by VAC.*

202 My investigators probed the link between DND/CF and the benefits system administered by VAC. They found that claims for disability benefits due to environmental exposure have a high rate of rejection, for two main reasons, both of them related to documentation:

203
- Firstly, there is frequently a lack of medical evidence establishing that the claimed exposure occurred and potentially caused the disability.

204
- Secondly, there is often a lack of evidence that the alleged exposure was related to the member's military service.

205 I believe that implementation of the documentation measures outlined above would eliminate these two problems. I also understand that the current process for applying for such a benefit involves the following steps:

206
- The individual applies for the benefit, which involves documentation of current medical disability.

207 • VAC turns to DND/CF for factual documentation regarding the individual's history and deployment, including medical records.

208 Thus, provided the measures outlined in section 3 (above) are implemented, the basis for a fair decision will be in place, and the burden of proof will not rest solely with the Canadian Forces member.

209 Summary of Our Analysis

210 I summarize our analysis of the organization's progress since Kuwait in the following graphic, which shows marked improvement in major areas (the boxes with check marks). The circled boxes on this graphic indicate that significant improvement must be made in the fields of in-theatre communication and of documentation. (Question marks indicate areas where improvement can only be determined over a time frame longer than this investigation.)

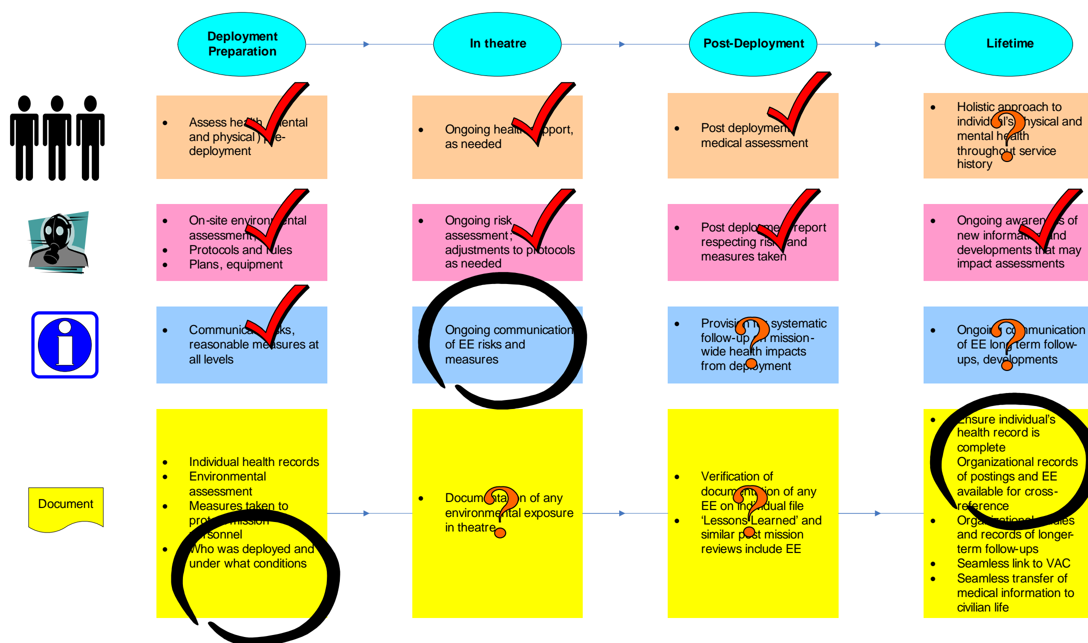


Figure 2

Note: For an enlarged version of this figure, please see Annex C.

211 Building a Culture of Trust

212 We found that communicating environmental risk successfully in theatre was a problem in Kuwait and Croatia, and that it remained a problem in both Afghan operations – despite exemplary environmental assessment and control measures in those two latter theatres on the part of DND/CF. Our interviews revealed a fundamental disconnect in perceptions that contributes to – and perhaps underlies – this communications problem.

213 Environmental professionals are reluctant to provide any information that is not conclusive or the result of careful testing and analysis that necessarily takes time. Their reports are technical in nature, couched in the measured language of science. Thus, although they conducted environmental assessments during the deployments in Afghanistan, results were not made available to Canadian Forces members.

214 The soldier on the ground is less interested in technical certainty. He or she demands immediate information that is very concrete and practical: "Am I safe? What precautions should I take? And if I get sick, will I be taken care of? What about my family?" These questions are rooted in trust. In Afghanistan, troops appear to have assumed that when they observed testing being done but received no subsequent information, negative results were being withheld from them.

215 We found that the United States has acquired a lot of recent experience in the field of communicating health-related issues since the end of the First Gulf War. To quote one of the people we interviewed, Colonel Robert DeFraites, Deputy Functional Proponent for Preventive Medicine, Office of the U.S. Army Surgeon General: "If you can't convince them you are going to take care of them – there's no hope!"

216 In 2003, when a number of severe pneumonia cases broke out among U.S. soldiers stationed in South East Asia, the U.S. Army reacted immediately with a high-profile medical and communications response that demonstrated immediate and effective action on the scientific level through a program of testing and successful diagnosis. At the same time, the U.S. Army provided members, their families, and all media (particularly an independent military newspaper trusted by soldiers) with timely information and demonstrated care. There was reliable and timely public information and there were also channels of information targeted specifically to individuals and their families. Examples like this show the value of building trust through listening to the concerns of soldiers and through quickly and pro-actively communicating to Canadian Forces members and the media regarding what the organization is doing to address the concerns. Communications with family members were of great importance in this case.

217 In Afghanistan in 2003, DND/CF was doing the right things technically – but it was not communicating the results of its testing. After the intervention of the Ombudsman, the organization reacted with speed and authority to concerns over air quality – but without the one-on-one personal element that proved so successful in the American example that we have cited.

218 My investigators noted instances where the communications and documentation approaches of senior medical officials reflected a belief that,

since in their view such risk was low, the concerns of members were subjective in nature and thus insignificant. Indeed, as already mentioned, one very senior official objected to the idea of a post-deployment questionnaire on environmental exposure on the grounds that some individuals "might develop a self-diagnosis of ill health from the process" of completing the questionnaire.

219 I want to make a very simple point here. In the case of 1 CER, the exposure was real and the concerns were legitimate. In many cases, those legitimate concerns were not given the weight and respect that they deserved. Even if, in the opinion of medical experts, the risk of negative health outcomes may be low, members need to feel that the Canadian Forces is actively listening to them, supporting them and taking both their health concerns and their concerns over future security seriously.

220 The core issue is trust. To cite Colonel DeFraites a second time: "If you can't convince them you are going to take care of them – there's no hope!" A culture of trust is critical to DND/CF. It is not enough to assess environmental and medical risk, take appropriate measures, and leave it at that. Members need to know – and be firmly reassured of – three things:

221
- That the organization does superior advance work in assessing environmental risks and making effective plans in preparation for a deployment.

222
- That the organization follows through on the results of those assessments, with protective protocols and equipment in theatre – and continues to assess and adjust for ongoing conditions.

223
- That the organization is firmly committed to supporting all members and their families in the event of negative health outcomes in the months and years following deployment.

224 This investigation shows that DND/CF has very significant improvements to communicate as a result of changes since the Croatia Board of Inquiry. We also found that awareness of the importance of effective risk communication is increasing within the CF – for example, in recent moves by the Environmental Health and Safety Committee to develop a format for a summary message when technical reports are finalized, or the development of a Web-based database that will give all members access to all environmental reports.

225 However, more attention needs to be given to ongoing, interactive, confidence-building and above all, *pro-active* communication. DND/CF needs to demonstrate to its members that the organization is supporting them, and, where appropriate, their families, at every stage of their mission – from pre-

deployment, to service in theatre, to post-deployment to the transition to civilian life.

Summary of Findings

226 1. Members of 1 CER discharged their responsibilities with exemplary courage and dedication to duty that deserves special recognition. In the case of the munitions fire at Camp Doha on July 11, 1991, 1 CER members behaved with unquestionable heroism. Although recognition was afforded to some individuals in particular and to the unit in general, I believe that a review of the circumstances is warranted to ensure that other individuals who acted above and beyond the call of duty are properly identified and recognized.

227 2. Members of 1 CER were exposed to toxic environmental materials of various kinds as part of their deployment, for which they were not adequately prepared and about which they were not adequately informed.

228 3. Many of the issues arising from the experience of 1 CER during and following the Gulf War have been the subject of recommendations of the Croatia Board of Inquiry, and we found that they had been implemented in Afghanistan. This constitutes a significant improvement in environmental risk assessment and protection of personnel in theatre – although on-the-ground communication with personnel may still need improvement.

229 4. Documentation of the environmental exposures in Kuwait was inadequate in the medical files of those exposed. This means that exposed individuals have experienced difficulty demonstrating a connection between future health effects and the exposure. This connection must be demonstrated to claim a disability benefit. Thus, this lack of documentation has serious potential consequences. It may also give the impression that the CF are unconcerned with the health consequences of exposure in the line of duty. Three significant recommendations from Croatia (22, 29 and 30) also raised and addressed this issue, which is not yet fully dealt with.

230 5. The legitimate health concerns of 1 CER veterans were not taken seriously when they returned to Canada from Kuwait; further, a military culture that places a high value on fitness and teamwork did not encourage expression of such concerns. Once international concerns over Gulf War Syndrome became a matter of public concern, DND/CF reacted in many positive ways, undertaking studies, providing information and holding a clinic with a toll-free information line and registry. This was, however, a reactive approach.

231 6. As unbelievable as it may seem, DND/CF remains unable to provide with certainty a complete list of all those deployed in Kuwait at that time, with the result that the organization itself is unable to track and analyze health outcomes on an organization-wide basis.

Conclusion and Recommendations

232 I conclude this extensive investigation by returning to its origin: the treatment of the 1 CER members who served with distinction in Kuwait in 1991 and, as a consequence of that service, were exposed to toxic substances, resulting in uncertainty with respect to their health and future security.

233 Their legitimate concerns over the health consequences of that exposure went largely unrecognized after they returned home. Therefore, one of my primary intentions in this report is to recognize both their distinguished service and that exposure. For this reason, the recommendations that follow begin by recognizing them, and ensuring that any members with outstanding documentation problems regarding environmental exposure are well served.

234 I will write to all known members of 1 CER, expressing my own admiration for their exemplary service in Kuwait, and providing them with a copy of this report (the letter appears at Annex D). I will also encourage them to contact my office in the event of continued documentation difficulties regarding their service and exposure in Kuwait. When any one of them contacts us, we will do absolutely everything we can to assist them.

235 This systemic investigation also looked at whether DND/CF has improved its practices since Kuwait in 1991. It concludes that major improvements in the assessment, management and documentation of environmental exposures have been made – particularly since the Croatia Board of Inquiry of 1999. Indeed, on a technical level, the environmental assessment work, and consequent planning and equipping of our military personnel, is now second to none among Canada's allies. This is commendable.

236 However, communications and documentation issues remain and they must be addressed. Specifically, DND/CF remains reactive with respect to communicating environmental and health risks to its personnel, both in theatre and post-deployment. There appear to be cultural reasons for this reactive approach. However, the risk to DND/CF of continued failure to engage in such active communication is a continued loss of trust on the part of its members. Change in this area is of *critical* importance.

237 Regarding documentation, this investigation found that some of the problems identified in the case of 1 CER veterans of the Kuwait deployment remain unaddressed more than a decade later. These problems are significant because they may render it more difficult for a Canadian veteran to obtain a disability benefit, in the event that an environmental exposure results in some form of ill health at some future date. This was the experience of some 1 CER veterans. Also, we have found that the fact that DND/CF cannot, with certainty, account for every person who has served in a particular deployment is a systemic

impediment to the organization's ability to communicate with veterans of a specific campaign, and to track and analyze health outcomes over time.

238 As a result of this investigation, I make the following nine recommendations to the Minister and the Chief of the Defence Staff:

239 1. The exemplary service of 1 CER personnel in Kuwait deserves formal recognition above and beyond unit recognition, which is not an individual award. In particular, DND/CF should formally review the heroic actions taken by 1 CER members during the Camp Doha incident, and, through the Canadian Forces Honours and Commendations Advisory Committee (CFHCAC), should consider individual awards or commendations at a level commensurate with the degree of heroism displayed during the incident.

240 2. The medical files of all 1 CER members who served in Kuwait (including members who have left DND/CF) should be reviewed to ensure that they contain explicit reference both to service in that theatre and exposure to smoke from burning oil wells.

241 3. DND/CF should create a well-publicized hot line (or similar mechanism) for a minimum of three months to receive, follow-up on and resolve any outstanding concerns of 1 CER members with respect to their environmental exposure in Kuwait in 1991.

242 4. DND/CF should ensure that it has the ongoing ability to produce complete and accurate lists of all personnel deployed on each mission, including Reservists and "augmentees" assigned to the mission.

243 5. A form that remains on the medical file of each deployed individual should contain reference to every deployment in which that individual has served. (The Croatia Board of Inquiry made the same recommendation, which was not accepted at that time.)

244 6. The medical file of each deployed individual should contain reference to any environmental exposure he or she has sustained in the course of each deployment – whenever such exposure has been identified by DND/CF through an assessment.

245 7. Individuals should be encouraged to file Declaration of Injury or Illness Forms (CF98) to record environmental exposures that cause them concern, and a copy of such forms should be retained on their medical files.

246 8. DND/CF should review its current standard questionnaire, CF 2078, with a view to better address occupational health issues, including members' concerns about potential health exposure.

247 9. Finally, and most importantly, DND/CF should take concrete steps to build a culture of trust with respect to environmental exposure and the health of its personnel by implementing the above recommendations and through ongoing and proactive communication with Regular Force and Reserve members regarding measures taken (a) to manage the risks associated with environmental exposure, and (b) to support individuals and their families by acknowledging their concerns about health issues and by providing them with accurate and timely information about what is known and not known about the cause of their condition.

Annex A: Relevant Recommendations of the Croatia Board of Inquiry

General

1. Ensure that the personnel of 2 PPCLI Battalion Group and 1 R22eR Battalion Group who served in Sector South receive the proposed "Commander in-Chief's Commendation" in recognition of their exemplary service.

Employment

4. Ensure that all deployed CF contingents and units have the human and technical means to collect, process and analyze intelligence and provide resources to assess pre-deployment environmental threats.

Protection

7. Institute the draft Environmental and Operations Policy.

8. Ensure that more than one Preventive Medicine Technician is assigned to each rotation. Also, ensure that the proper testing equipment and trained staff to investigate environmental concerns are provided.

9. Provide, where water quality is an issue, a water purification capability, such as a Reverse Osmosis Water Purification Unit (ROWPU), to ensure quality of water from both bacterial and chemical points of view.

10. Designate J3 nuclear, biological and chemical (NBC) as the lead operational point of contact responsible for all environmental issues and concerns.

11. Conduct consistent reconnaissance for all missions, which covers all potential hazards to CF personnel and ensure that an "Environmental Risk Assessment" is included in operational planning.

Sustainment

20. Ensure that adequate personnel, including P Med Tech QL 6A-qualified, are deployed to address occupational health and safety issues.

22. If a member has been exposed to contamination, accurate information as to the type, duration, degree of exposure and any related health risks must be placed on the member's file based on clear directions.

25. Conduct more detailed medical examinations before and after deployments.

262 27. Ensure that those people with medically unexplained physical symptoms receive the appropriate treatment.

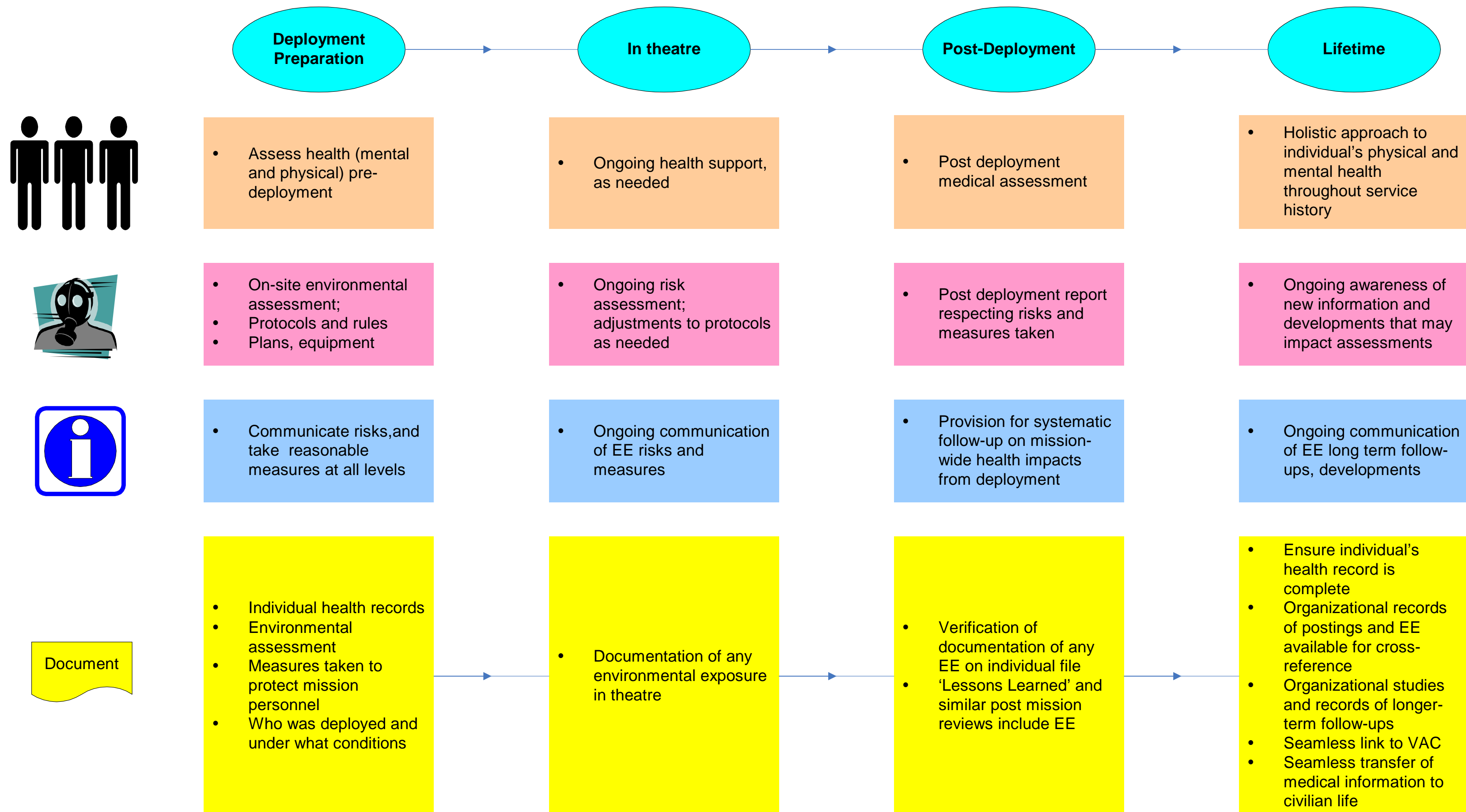
263 28. Conduct periodic health surveys of retired and serving CF members with emphasis on those personnel subject to deployments.

264 29. Create an electronic health record including all CF members.

265 30. Annotate individual medical files to reflect all operational missions undertaken.

266 33. Ensure that CF personnel are fully kitted-out in Canada before proceeding overseas.

Annex B: Figure 1



EE = Environmental Exposure

Annex C: Figure 2

O = Significant improvement must be made
? = To be determined in the long term
√ = Marked improvement

Annex D: Letter to 1 CER Kuwait Veterans

267 *October 2006*

268 Addressee's name and address

269 Dear Sir or Madam:

270 I am writing personally to each member of 1 Combat Engineer Regiment (1 CER), as a result of the investigation into the environmental exposures experienced by you and your colleagues during your deployment in Kuwait in 1991.

271 As you know, my office has been investigating the issues arising from those exposures for some time. During the course of this investigation, we interviewed everyone from that rotation whom we could identify and locate – 261 members in all.

272 Please find attached a copy of our final report, which was recently made public.

273 In overseeing this investigation, I have been deeply impressed by the exemplary courage and dedication to duty displayed by members of 1 CER during that deployment. During the munitions fire at Camp Doha on July 11, 1991, 1 CER members behaved with unquestionable heroism. And throughout the deployment, you and your colleagues performed dangerous and important work, under extremely difficult circumstances – the heat, the heavy smoke from burning oil wells, the continual uncertainties regarding other possible environmental exposures. I admire you for this.

274 I believe that the treatment you received upon returning home did not meet the high standards of service that you so generously gave. Therefore, in this report, I have attempted to highlight the exemplary nature of your service, to document the facts regarding your subsequent health concerns, and to show that those legitimate concerns went largely unrecognized by DND/CF. I have also sought to ensure that, almost 15 years later, DND/CF has indeed changed the way it manages the environmental health risks faced by Canadian Forces members on behalf of their country.

275 I hope that my report does justice to your service, and that it will also be helpful to DND/CF as that organization continues to improve its management of environmental health issues. In my view, despite many significant improvements, some documentation issues remain.

276 For this reason, I want to ensure that any 1 CER members with outstanding documentation problems regarding environmental exposure are well served. If you experience any difficulty in obtaining service documents related to your service in Kuwait, please contact my office and my staff will gladly assist you. Our toll free number is: 1-888-828-3626 – or you can access us through our website at the following address: www.ombudsman.forces.gc.ca.

277 Once again, let me express my profound appreciation and admiration for all you have done for and in the name of your country.

278 Yours truly,

279 Yves Côté, Q.C.

280 Ombudsman