

Development Of A Procedure To Assess Command Challenges

Allan English
KMG Associates

83 Gore St.
Kingston ON
K7L 2L4

Contract Number W7711-027795

On behalf of
DEPARTMENT OF NATIONAL DEFENCE

As represented by
Defence R&D Canada – Toronto
1133 Sheppard Ave W
Toronto Ontario
M3M 3B9

DRDC Scientific Authority
Carol McCann
416-635-2196

Defence Research and Development Canada – Toronto

Contract Report

CR 2003-143

2004-03-10

Author

Allan English

Approved by

Carol McCann

Head, Leadership and Trust Group

Approved for release by

K. M. Sutton

Chair, Document Review and Library Committee

© Her Majesty the Queen as represented by the Minister of National Defence, 2004

© Sa majesté la reine, représentée par le ministre de la Défense nationale, 2004

Abstract

This is the final report for work done by KMG Associates (the contractor) on the Development of a Procedure to Assess Command Challenges Research Project. This project involved the development of a guide for writing Command Challenges (CCs); the collection and analysis of a new set of CCs from all three environments (army, navy and air force); the revision of the CC Assessment Tool (CCAT); and the development of a manual describing how to use the CCAT.

The research methodology consisted of the contractor compiling a total of 50 descriptions of events with command challenges (CCs) related to a focal or central person based on the new guide for writing CCs. These CCs were then evaluated by expert reviewers using the revised assessment tool (CCAT) based on the Pigeau and McCann theoretical framework for C2. During this process the evaluators provided input for the CC writing guide, the revised CCAT, and the guide for using the CCAT.

It was concluded that the methodology of collecting and evaluating CCs is a sound approach for assessing the validity of Pigeau and McCann theoretical framework for C2 and that the CC writing guide, the revised CCAT, and the guide for using the CCAT will make future validation of the framework more effective.

Résumé

Le présent rapport final porte sur les travaux effectués par KMG Associates (l'entrepreneur) quant au projet de recherche sur l'élaboration d'une procédure d'évaluation des défis de commandement. Le projet comprenait l'élaboration d'un guide de rédaction des défis de commandement (DC); la collecte et l'analyse d'un nouvel ensemble de DC pour les trois armées (Armée de terre, Forces maritimes et Force aérienne); l'examen de l'outil d'évaluation des DC (OEDC); l'élaboration d'un guide de l'utilisateur de l'OEDC.

La méthodologie de recherche a consisté en la compilation, par l'entrepreneur, de 50 descriptions d'événements présentant des défis de commandement (DC) liés à une personne centrale en fonction du nouveau guide de rédaction des DC. Ces DC ont ensuite été évalués par des spécialistes en vérification à l'aide de l'OEDC fondé sur le cadre théorique de C2 Pigeau-McCann. Au cours de ce processus, les évaluateurs ont contribué au guide de rédaction des DC, à l'examen de l'OEDC et au guide de l'utilisateur de l'OEDC.

On a conclu que la méthodologie utilisée pour la collecte et l'évaluation des DC constitue un bon moyen pour évaluer la validité du cadre théorique de C2

Pigeau-McCann. De plus, le guide de rédaction des DC, l'OEDC révisé et le guide de l'utilisateur de l'OEDC permettront une validation plus efficace du cadre.

This page intentionally left blank.

Executive summary

This is the final report for work done by KMG Associates (the contractor) on the Development of a Procedure to Assess Command Challenges Research Project. This contract continued the validation of the Pigeau-McCann conceptual framework for command and control (C2) started with the Compilation and Analysis of Army Command Challenges Research Project conducted by the contractor in 2001-02 for DRDC – Toronto. The current project involved the development of a guide for writing Command Challenges (CCs); the collection and analysis of a new set of CCs from all three environments; the revision of the CC Assessment Tool (CCAT); and the development of a manual describing how to use the tool.

A new set of CCs, written for this contract, continued the validation of the Pigeau-McCann conceptual framework for C2. Besides continuing the validation of the Pigeau-McCann framework, the current project addressed these issues: 1) consistency in the selection and write-up of the CCs themselves; 2) the design of the assessment tool in terms of the structure of the questions; and 3) the consistency with which the tool was applied by the panel members. These issues were addressed as follows: 1) a set of guidelines for writing CCs was written; 2) the contractor revised the CCAT; 3) a CCAT Users Manual was written to guide the application of the assessment tool.

The selection and write-up of the CCs was more consistent than in the previous project because the writers were able to refer to the CC writers' guide. Fifty CCs were collected based on the parameters in the guide. For this project the CCs were gathered from all CF environments, not just the Army as with the previous project. The two historical CCs indicated that the framework could be applied to CCs from Canada's past. A new form to compile the CCs was devised by the Contractor. The addition of the "Central or Focal Person" helped both writers and evaluators complete their tasks more efficiently. The assessment tool for evaluating CCs was revised significantly based on feedback and experience from the previous project and feedback from the early stages of this project.

It was concluded that the methodology of collecting and evaluating CCs is a sound approach for assessing the validity of Pigeau and McCann theoretical framework for C2 and that the CC writing guide, the revised CCAT, and the guide for using the CCAT will make future validation of the framework more effective.

It is recommended that:

1. the CC writing guide be adopted;
2. the new form for compiling CCs be adopted;
3. DRDC consider creating its own archive of DND source research material (e.g., testimony from Boards of Inquiry);

4. in the future, some CCs based on historical events (i.e., events that occurred more than 10 years ago) be collected;
5. the electronic version of CCAT be used for future assessment of CCs;
6. the new CCAT Users Manual be adopted for use;
7. the CCAT should only be used by people who are trained to use the assessment tool;
8. more evaluators be trained to use the CCAT;
9. further validation of Pigeau and McCann theoretical framework for C2 be conducted using the methodology used in this project.

English, A.D. 2003. Consultant, KMG Associates. CR2003-143 Defence and Civil Institute of Environmental Medicine.

Sommaire

Le présent rapport final porte sur les travaux effectués par KMG Associates (l'entrepreneur) quant au projet de recherche sur l'élaboration d'une procédure d'évaluation des défis de commandement. Ce projet a validé le cadre théorique de commandement et contrôle (C2) Pigeau-McCann qui avait débuté avec le projet de recherche sur la compilation et l'analyse des défis de commandement de l'Armée de terre par le même entrepreneur en 2001-2002 et commandé par RDDC Toronto. Le présent projet comprend l'élaboration d'un guide de rédaction des défis de commandement (DC); la collecte et l'analyse d'un nouvel ensemble de DC pour les trois armées; l'examen de l'outil d'évaluation des DC (OEDC); l'élaboration d'un manuel de l'utilisateur de l'OEDC.

Un nouvel ensemble de DC, rédigé aux termes du contrat, a continué la validation du cadre théorique de C2 Pigeau-McCann. De plus, le présent projet a abordé les questions suivantes : 1) l'uniformité dans la sélection et la rédaction des DC; 2) la conception de l'outil d'évaluation selon la structure des questions; 3) l'utilisation uniforme de l'outil d'évaluation par les spécialistes. Ces questions ont été résolues de la façon suivante : 1) l'élaboration de lignes directrices pour la rédaction des DC; 2) la révision de l'OEDC par l'entrepreneur; 3) l'élaboration d'un guide de l'utilisateur de l'OEDC.

La sélection et la rédaction des DC étaient plus uniformes que lors du projet précédent, car les rédacteurs pouvaient se référer au guide de rédaction des DC. Cinquante DC ont été recueillis selon les paramètres du guide. Ils provenaient des trois armées des FC, et non seulement de l'Armée de terre, comme pour le projet précédent. Les deux DC historiques ont démontré que le cadre pouvait s'appliquer à des DC relevant du passé du Canada. L'entrepreneur a mis au point une nouvelle formule pour compiler les DC. L'ajout de la « personne centrale » a aidé les rédacteurs et les évaluateurs à exécuter leurs tâches plus efficacement. L'outil d'évaluation pour les DC a été considérablement modifié en fonction de la rétroaction et de l'expérience du projet précédent ainsi que de la rétroaction des étapes initiales du présent projet.

On a conclu que la méthodologie utilisée pour la collecte et l'évaluation des DC constitue un bon moyen pour évaluer la validité du cadre théorique de C2 Pigeau-McCann. De plus, le guide de rédaction des DC, l'OEDC révisé et le guide de l'utilisateur de l'OEDC permettront une validation plus efficace du cadre.

Il est recommandé que :

1. le guide de rédaction des DC soit adopté;
2. la nouvelle formule de compilation des DC soit adoptée;
3. RDDC envisage de créer ses propres archives des documents de recherche de première main du MDN (p. ex., témoignage des commissions d'enquête);

4. certains DC fondés sur des événements historiques (p. ex., événements qui se sont produits il y a plus de 10 ans) soient recueillis, à l'avenir;
5. la version électronique de l'OEDC soit utilisée pour l'évaluation future des DC;
6. le nouveau guide de l'utilisateur de l'OEDC soit adopté;
7. l'OEDC ne soit utilisé que par les personnes qui ont appris à s'en servir;
8. plus d'évaluateurs soient formés pour utiliser l'OEDC;
9. le cadre théorique de C2 Pigeau-McCann soit validé au moyen de la méthodologie utilisée dans le cadre de ce projet.

English, A.D. 2003. Consultant, KMG Associates. CR2004-xxx Institut de médecine environnementale pour la défense.

This page intentionally left blank.

Table of contents

Abstract.....	i
Résumé.....	i
Executive summary	iv
Sommaire.....	vi
Table of contents	ix
Introduction	1
Method.....	3
Summation.....	7
Annex A – Summary of command challenges	11
Annex B – The human dimension in command	15
Annex C – Summary of command challenge evaluators qualifications.....	17
Annex D – Guidelines for writing command challenges from documentary sources	19
Annex E – Sources used in command challenges	27
Annex F – A guide to using the command challenges tool for the Pigeau-McCann framework.....	35
Annex G – Command challenge analysis tool.....	63

This page intentionally left blank.

Introduction

This is the final report for the Development of a Procedure to Assess Command Challenges Project carried out by the contractor for Defence Research and Development Canada (DRDC) –Toronto. This project was a follow on activity to the Compilation and Analysis of Army Command Challenges Research Project conducted by the contractor in 2001-02 for DRDC – Toronto. That project is described in detail in DCIEM REPORT # CR 2002-055. In summary, it was designed to begin the validation process for the Pigeau-McCann conceptual framework for command and control. A set of 50 command challenges (CCs) was collected and assessed by an independent panel of five people using an assessment tool based on the framework. The work tested the comprehensiveness of the framework and its utility for interpreting CCs.

This contract continued the validation of the Pigeau-McCann conceptual framework for command and control by the collection and analysis of a new set of CCs. The results of the first stage of validation indicated that the approach taken in that phase of the project had promise, but that there were a number of areas in which the procedure could be improved. One concerned the selection and write-up of the CCs themselves. A second concerned the design of the assessment tool in terms of the structure of the questions. The third issue was the consistency with which the tool was applied by the panel members. The current project was intended to address these issues through a) the collection of a new set of CCs structured according to a new set of guidelines; b) the revision of the assessment tool; c) the creation of a manual to guide the application of the tool; d) an analysis of the new set of CCs using the revised tool and manual.

The following activities were undertaken in this project to address the issues described above (those doing each activity are indicated in parentheses):

1. development of a guide for writing CCs (DRDC & Contractor);
2. collection of a new set of CCs (Contractor);
3. revision of the assessment tool (Contractor);
4. development of a manual describing how to use the tool (Contractor);
5. assessment of new CCs by an independent panel (Contractor); and
6. analysis of data from assessment (DRDC).

The details of these activities are described in the Method Section of the report that follows next.

This page intentionally left blank.

Method

The following activities were conducted to achieve the aims of this project.

Development of a Guide for Writing CCs

DRDC provided the contractor with a guide for writing CCs. The contractor revised the guide based on experience from the previous validation process and distributed the guide to CC writers and evaluators. The guide was revised again based on feedback from those who compiled CCs and those who evaluated the CCs. The latest version of the guide for writing CCs, titled “Guidelines for Writing Command Challenges from Documentary Sources” is at Annex D.

Collection of CCs

Identify sources

In consultation with the SA, the Contractor identified pertinent source material relating to Command in the CF with a focus on events that occurred in the past ten years. There were four main differences between this project and the Compilation and Analysis of Army Command Challenges Research Project in terms of deciding from where to gather CCs. First, for this project the CCs were gathered from all CF environments, not just the Army. Second, two historical CCs (#s 15 and 47) were included to see if the framework could be applied to CCs from Canada’s past. The two historical CCs depicted events that occurred approximately 40 (#15) and 60 (#47) years ago. Third, the sources were more varied than from the earlier project because interviews were used as a method of gathering information for CCs for which inadequate written material existed. Fourth, no CCs were written by authors based solely on their personal experience, as was the case in the previous project. The sources used are in the bibliography at Annex E.

Identify data collectors

The Contractor identified a set of individuals who were in a position to access the sources and who were qualified to identify and document CCs. All individuals had a high degree of familiarity with CF operations, and they had different backgrounds and experiences to provide a range of perspectives and a range of examples. No data collector was selected who was on the existing assessment panel.

Compile CCs

The Contractor arranged for the compilation, by the data collectors, of 50 CCs from the sources. As indicated on the CC forms, 19 CCs (03-27 to 03-45) were based on

interviews, and six CCs (03-09, 03-11, 03-12, 03-14, 03-18, 03-26) were supplemented with interview material. The CCs came from the following environmental backgrounds: 30 army, 13 navy, 6 air force, and 1 joint. A summary of the CCs is at Annex A. The CC general content and structure followed the parameters in the guide for writing CCs. A new form to compile the CCs was devised by the Contractor based on these parameters; it is at Annex B. The main change to the form from the previous project was the requirement to identify the “Central or Focal Person” to help the writers of the CCs concentrate on one person per CC and to identify the “command person” clearly to the evaluators. The addition of the focal person on the form was implemented as a result of experience gained from the previous phase of this project. In the previous phase it was sometimes difficult for evaluators to know who the “command person” was in each CC if there were multiple actors. This change helped both writers and evaluators complete their tasks more efficiently.

Assessment tool

Revisions

The assessment tool used in the Compilation and Analysis of Army Command Challenges Research Project was revised based on comments received from the assessment panel, DRDC, and the Canadian Forces Leadership Institute. The tool was designated the Command Challenge Assessment Tool (CCAT). Most of the revisions were based on suggestions made based on experience from the previous phases of the project, as described in DCIEM REPORT # CR 2002-055. A trial run of the new electronic version of the revised tool was conducted using three of the new CCs. After the trial run, further comments were received and further revisions were made to the form. In order to keep the size of the form manageable and to ensure that evaluation results are consistent, it was agreed that the CCAT should only be used by people who are trained to use the form and who will be able to refer to a CCAT Users Manual. Therefore, the form should only contain the detail necessary to prompt trained users to complete the form. A copy of the revised CCAT is at Annex G to this report.

Create electronic version

The contractor arranged for the revised tool to be converted into an electronic form having an output suitable for quantitative and qualitative analysis. The electronic version of the CCAT was sent to the SA separately.

Develop manual with guidelines on the use of the assessment tool

Create manual

The Contractor developed a manual providing guidelines on the use of the assessment tool (CCAT Users Manual) to ensure uniformity in the application of the CC analysis method and the tool.

Revise manual

The Contractor modified the manual to reflect the revisions of the assessment tool and comments from all participants in this phase of the project. The revised manual is at Annex F.

CC Assessment

Assessment by panel

The Contractor arranged for each assessment panel member to complete the assessment of the 50 CCs using the revised electronic tool and in accordance with the guidance in the CCAT manual. The same assessment panel was used to evaluate the CCs as was used for the Compilation and Analysis of Army Command Challenges Research Project. The qualifications of the evaluators are at Annex C.

Critique of assessment process

One problem that arose during the conduct of this project that was not evident in the previous project was the difficulty some evaluators had completing their assessments and delivering their data in a timely manner despite that fact that CCs were made available to them earlier than in the previous project. There were a number of reasons for this, but the key reason was that the evaluators were very busy with other work. A solution for this problem is to train more evaluators and so provide more flexibility.

This page intentionally left blank.

Summation

Discussion

From the contractor's perspective, the project went well. There is a large number of sources that can be used to identify and document CCs for the CF. The high CF tempo of operations over the past ten years has provided an excellent database for writing CCs. Some concern was expressed by writers of the CCs that DND has removed many useful research documents from its web site. For example, the testimony of many Boards of Inquiry, like the Croatia Board, can no longer be found on the DND web site. Some thought should be given to collecting this data and creating an archive of research material for CCs that is controlled by DRDC and not some outside agency.

One formal meeting to review the CC Project was held at DRDC Toronto on 13 Dec 02. The following persons participated in the meeting: the contractor A. English, R. Pigeau, C. McCann (the SA) and four of the five evaluators. Generally everyone was happy with progress to date. The new CC writing format and the new Command Challenge Analysis Tool (CCAT) were both judged to be improvements over those used in the previous phase of this project. A number of changes were suggested to various documents used in the CC project. Most of these suggestions were implemented as described above. Other informal meetings were held between the contractor and the SA to discuss minor issues as they arose. Over the past two years those involved in this project have developed into an effective team; therefore, fewer meetings were required than for the previous project.

After experience using the CCAT and having evaluators assess over 120 CCs in the two projects, it was agreed that new evaluators need to be trained to use the CCAT effectively. Training would ensure that they can understand and correctly apply the concepts in the Pigeau-McCann framework required to use the CCAT. The creation of a CCAT Users Manual provides a way to standardize the training of evaluators and provides a reference for them both during and after the training period.

Summary

This contract continued the validation of the Pigeau-McCann conceptual framework for command and control through the collection and analysis of a new set of CCs. Besides continuing the validation of the Pigeau-McCann framework, the current project addressed these issues:

1. consistency in the selection and write-up of the CCs themselves;
2. the design of the assessment tool (CCAT) in terms of the structure of the questions; and
3. the consistency with which the tool was applied by the panel members.

These issues were addressed as follows:

1. a set of guidelines was provided to the contractor by DRDC and the contractor revised the guide in response to concerns raised in previous phases of this project;
2. the contractor revised the assessment tool (CCAT) in response to concerns raised in previous phases of this project;
3. the contractor prepared the CCAT Users Manual to guide the application of the assessment tool.

The selection and write-up of the CCs was more consistent than in the previous project because the writers were able to refer to the CC writers guide. Fifty CCs were collected based on the parameters in the guide. For this project the CCs were gathered from all CF environments, not just the Army as with the previous project. The two historical CCs indicated that the framework could be applied to CCs from Canada's past. A new form to compile the CCs was devised by the Contractor. The addition of the "Central or Focal Person" helped both writers and evaluators complete their tasks more efficiently.

The assessment tool for evaluating CCs was revised significantly based on feedback and experience from the previous project and feedback from the early stages of this project. The Contractor developed a manual providing guidelines on the use of the assessment tool (CCAT Users Manual) to ensure uniformity in the application of the CC analysis method and the tool.

Two issues arose regarding assessment of the CCs during the project. First, some evaluators had difficulty completing their assessments and delivering their data in a timely manner. Second, it was concluded that new assessors need to be trained to use the CCAT effectively. To date, the assessors have learned how to use the assessment tool by trial and error. A solution to address these problems is to formally train more evaluators using the CCAT Users Manual for this training.

It was concluded that the methodology of collecting and evaluating CCs is a sound approach for assessing the validity of Pigeau and McCann theoretical framework for C2.

Recommendations

Based on the experience gained from this project, it is recommended that:

1. the attached guide for writing CCs be adopted;
2. the attached form for compiling CCs be adopted;
3. DRDC consider creating its own archive of DND source research material (e.g., testimony from Boards of Inquiry);
4. in the future, some CCs based on historical events (i.e., events that occurred more than 10 years ago) be collected;

5. the electronic version of CCAT be used for future assessment of CCs;
6. the attached version CCAT Users Manual be adopted for use;
7. the CCAT should only be used by people who are trained to use the assessment tool;
8. more evaluators be trained to use the CCAT;
9. further validation of Pigeau and McCann theoretical framework for C2 be conducted using the methodology used in this project.

This page intentionally left blank.

Annex A – Summary of command challenges

**ANNEX A TO
REPORT ON DCIEM
COMMAND CHALLENGE RESEARCH
DATED 14 OCT 2003**

SUMMARY OF COMMAND CHALLENGES

CC# 03-	TITLE	CENTRAL PERSON
1	Drvar Riots	Mechanized Infantry Company Group Commander (Major)
2	Command Relationships During Multinational Operations	Mechanized Infantry Company Group Commander (Major)
3	Application of ROE	Mechanized Infantry Company Group Commander (Major)
4	Snipers	Mechanized Infantry Company Group Commander (Major)
5	Rescue of the Mayor	Mechanized Infantry Company Group Commander (Major)
6	Multi-tasking and Interoperability	Sergeant, 1 Air Maintenance Squadron
7	Bar-Room Brawl in Garesnica	Company Commander, 3 PPCLI
8	Ethical Obligations as a Dimension of Command	Commander Canadian Fleet Pacific
9	Naval Reservists in Ste-Agathe	Master Seaman, Leader of Boat Crew
10	HMCS VANCOUVER Boarding of the Zakat	Commander of HMCS VANCOUVER
11	HMCS Algonquin: Armed Boarding of a Merchant Vessel Prior to Providing Medical Assistance	Executive Officer of HMCS ALGONQUIN
12	Search and Rescue at Lac Saint- Jean	Hercules Aircraft Commander
13	Attempted negotiation to pass through a Croat checkpoint	Troop Leader, 12e Regiment Blinde du Canada Regimental Group
14	Sergeant's decision to disobey a medical officer's command	Section Commander, 3 Commando, CAR
15	On the Brink	Canadian Flag Officer
16	Implementation of group sessions using mille level stress facilitator techniques	Commanding Officer, CANBAT1

CC# 03-	TITLE	CENTRAL PERSON
17	Providing protection for British engineers	Acting 21C, Squadron B, RBC
18	Implementation of 12 month Squadron tasking with variable personnel tour lengths	1 Wing Commander
19	Suspension of two Air Force fleets for safety reasons	Commander, 1 Canadian Air Division
20	Air Force Policy: laser eye surgery	Chief of the Air Staff
21	GTS KATIE Dispute	Commander of HMCS ATHABASKAN
22	JTF2 Capture of Al Qaeda Forces	DCDS
23	HMCS OTTAWA Non-Compliant Boarding	Commander of HMCS OTTAWA
24	Swiss Air Recovery Operation	Commander of HMCS PRESERVER
25	Refusal of Anthrax Vaccine	Sergeant, Flight Engineer
26	ROE Conflict	Mechanised Infantry Battle Group Operations Officer(Major)
27	Small Unit Exchange	Mechanised Infantry Battle Group Operations Officer(Major)
28	Range Safety Staff Officer	Mechanised Infantry Battle Group Operations Officer(Major)
29	LOSV Driver Qualification	Mechanised Infantry Battle Group Operations(Major)
30	Charge under the National Defence Act	Mechanised Infantry Battle Group Adjutant (Captain)
31	EW Inspection	Mechanised Infantry Battle Group Adjutant (Captain)
32	Cordon and Search	Officer Commanding Mechanised Infantry Company (Major)
33	Dutch Recce Platoon	Dutch Reconnaissance Platoon Commander (Lieutenant)
34	Doctor/Patient Confidentiality	Unit Adjutant (Captain)
35	ASD Fuel Delivery	Officer Commanding Battle Group Administration Company (Major)

CC# 03-	TITLE	CENTRAL PERSON
36	Illicit Aid Cache	Officer Commanding Mechanised Infantry Company (Major)
37	Platoon Command Team Discipline	Officer Commanding Mechanised Infantry Company (Major)
38	Casualty Evacuation	Long Range Reconnaissance Team Commander (Capt)
39	Crowd Control	Mechanised Infantry Battle Group Commanding Officer (LCol)
40	Engineering Route Clearance	Officer Commanding Combat Engineer Field Squadron (Major)
41	Multinational Aid Delivery	Commanding Officer, Mechanised Infantry Battle Group (LCol)
42	Engineer Vehicle Requirements	Engineer Troop Commander (Lieutenant)
43	National Direction for Out of Area Deployment	Mechanised Infantry Battle Group Commanding Officer (LCol)
44	Bridge Site Recce	Officer Commanding Engineer Field Squadron (Major)
45	Authority for engineer works	Engineer Field Squadron Operations Officer (Captain)
46	Inaction in Port	Senior Rating on one of HMC Ship (the leader)
47	Challenging the Chain	Escort Group Commander
48	Staying on the surface	Team Project Manager
49	Crossing the Line	Canadian Naval Commander
50	Surfacing with women	Senior Naval Officer

Annex B – The human dimension in command

**THE HUMAN DIMENSION IN COMMAND
COMMAND CHALLENGE**

Note: Refer to “Guidelines for Writing Command Challenges from Documentary Sources” when completing this form.

Name:

Date Completed:

Source(s) for Challenge:

Title of Challenge:

Date of Challenge:

Geographic Location of Challenge:

Central (Focal) Person:

Antecedents to the Challenge (Situation Leading Up to the Event):

Actions Taken by the Central (Focal) Person:

Results or Outcomes of the Central (Focal) Person’s Actions:

Specific Command Issues: Please list in point form what you consider to be the most important issues from most to least important. This could be followed by a short narrative to elaborate on the most important issues and to explain why the situation described above posed a particular challenge or difficulty for the person in the command situation.

Annex C – Summary of command challenge evaluators qualifications

**ANNEX C TO
REPORT ON DCIEM
COMMAND CHALLENGE RESEARCH
DATED 14 OCT 2003**

**SUMMARY OF COMMAND CHALLENGE EVALUATORS
QUALIFICATIONS**

Qualifications	Evaluator #1	Evaluator 2	Evaluator 3	Evaluator 4	Evaluator 5
Gender	M	M	F	M	M
Highest Degree Held	MA	PhD	PhD	MA (PhD in progress)	BSc
Field	Psychology	History	Psychology	War Studies	Science
Military Service	Army	Navy	None	Army	Air Force
Years of Service	30	27	Na	29	36
Highest Rank Held	LCol	LCdr	na	Capt	BGen
Experience as NCM	No	No	na	Yes	No
Experience in Reserves	No	No	No	Yes	No

Annex D – Guidelines for writing command challenges from documentary sources

**ANNEX D TO
REPORT ON DCIEM
COMMAND CHALLENGE RESEARCH
DATED 14 OCT 2003**



Guidelines for Writing Command Challenges from

Documentary Sources

Defence Research and Development Canada (DRDC) Toronto

P.O. Box 2000, 1133 Sheppard Ave. W.
Toronto, ON, M3M 3B9
Canada



Defence Research and
Development Canada

Recherche et développement
pour la défense Canada

Canada

A. Objective

The goal of this document is to assist you in writing a clear and concise example of a Command Challenge (CC) based on documentary sources. Documentary sources include books, articles, diaries, transcripts of interviews, boards of inquiry, courts martial, etc. This CC will be used both as a research and a lessons learned tool. All CCs produced should describe actual events.

B. Methodology

B1. Instructions

The CC should be based on a command challenge that occurred in the **last 10 years**, but with approval can be based on older events. The CC should represent an operational challenge encountered by CF members in leadership positions. See section B4 below if you would like some tips on how to identify a good CC.

The CC that you produce should consist of the circumstances leading up to the challenge (antecedents), the actions taken by the military person in command (behaviours), and the outcome of their actions (consequences). The information that you provide should be directly related to the command incident in question. Do not include unnecessary information that will complicate the CC.

B2. Tips for writing C.C. Reports

- 1) Concisely describe the situation, the action taken, and the outcome. Carefully include **only the information that is relevant** to each incident.
- 2) Describe what the central person in the CC did (or failed to do) in that specific situation. Do not describe, “types of things people do” or general traits of effective or ineffective commanders. The emphasis should be on **observable behaviours**, not on the interpretation of the action.
- 3) Focus on the actions of a **single leader or commander** rather than those of multiple levels of command, or of a command team.
- 4) Write events in the **third person** and do not use personally identifying information or indicate the gender of the commander. Use terms such as “the leader,” “the commanding officer” and “the person in command”. If you are reporting personal events, please transcribe them into the third person accounts.
- 5) Write about **actions you have taken**, or the actions of others that you have **personally observed**. Do not report situations relayed to you by a third party.

B3. Example of Command Challenge Format

The following example represents a good CC. Please refer to it as an example of the format, style of writing, and type of information required.

Example of a Good Command Challenge

1. What was the situation leading up to the event? (Describe the antecedents)

In response to a civil war in Somalia, the Canadian government passed Resolution 794, which sanctioned Operation Deliverance. Thus, Canadian Forces (CF) were mobilized and deployed to Somalia as part of an American led coalition (UNITAF). Fourteen hundred Canadians comprised of the crew of HMCS Preserver, the Canadian Airborne Battle Group (CABG, including the Canadian Airborne Regiment (CAR)), members of the Royal Canadian Dragoons (RCD), 1st Battalion Royal Canadian Regiment (RCR), 2nd Combat Engineer Regiment, 427 Tactical Helicopter Squadron, and 1st Division Canadian Headquarters were deployed.

Preparation for the Somalia deployment included ingestion of anti-malaria medication. A year-round risk of malaria exists in Somalia, with a specific strain, “falciparum”, being particularly virulent and resistant to the traditional drug treatment of chloroquine. Subsequently, Canadian troops required an alternate form of treatment against malaria. One alternate drug was *mefloquine hydrochloride* (mefloquine).

At that time mefloquine, was not generally available to the Canadian public. However in the U.S., it had been approved for use since May 1989. Few medical studies had been conducted on mefloquine, and reports of adverse effects were limited to anecdotal evidence, which suggested that debilitating side effects such as panic attacks, convulsions, headaches, and hallucinations were loosely associated with mefloquine usage. In 1993, a study published in *Lancet* claimed that serious side effects occurred in only 1 of 10,000 cases. This ratio of adverse side effects was deemed acceptable for widespread usage of mefloquine in the CF.

2. What did the commander do? (Specify the Command behaviours)

In September 1992, in a memorandum from the Department of National Defence’s Director, Health Protection and Promotion (DHPP 2), a LCol stated that all of Somalia was considered malarious and that malaria resistant to chloroquine was prevalent. A weekly administration of mefloquine was recommended as the means of preventing serious illness to CF members.

3. What was the outcome or result of the commander's action? (Identify the consequences)

As a result of the LCol's orders, DHPP 2 provided approval for mefloquine prescription to all deployable personnel. One week before deployment to Somalia, soldiers began taking mefloquine. The course of medication was maintained for the duration of the operation, and for four weeks after returning to Canada. A CAR Standard Operating Procedure (SOP) dictated a weekly dosing of 250 milligrams with mefloquine. Unit medical services staff supervised the distribution, which took place at the same time and place each week – at the Wednesday noon meal. A strict check was kept to ensure all personnel received the correct weekly dosage.

Among the troops, the reports of suspected side effects of mefloquine were commonly discussed. In October 1993, a Captain raised the concerns of CF members in Parliament. The Captain claimed that because of the supposed experimental nature of mefloquine and the real experience of a variety of side effects, the day of dosage became popularly known as the “psycho Thursday”. Whatever the day the drug was administered, both officers and ranks were fully aware of potential adverse psychological and physiological results.

At a CF medical conference in 1993, a Major claimed that a number psychiatric hospitalizations were “probably due to mefloquine”, and that a suicide attempt may have been related. He stated that 24 to 48 hours after weekly dosage he regularly experienced minor neuropsychiatric problems. Other symptoms included: gastrointestinal upset, nightmares, headaches and thought disturbance (e.g. paranoia). He concluded that the drug “caused sub-clinical adverse effects on cognition”. It was also noted that the mefloquine pills taken by the Canadian troops were 10% stronger than those taken by American troops.

A commission was ordered to review the use of mefloquine by CF troops in 1992. However, the Somalia Commission concluded that the CF decision to prescribe mefloquine appeared to be consistent with medical practice and literature at that time. Thus, mefloquine was an appropriate anti-malarial drug for troops in Somalia. Incidents of adverse neuropsychiatric or cognitive side-effects in-theatres were not consistent. There were suggestions that the use of mefloquine contributed to misbehaviour and neuropsychiatric reactions. However, the Somalia Commission found that the data did not support any conclusion that this was widespread. The CF were justified in their use of mefloquine.

It is clear that mefloquine was not the only anti-malarial drug available. In fact, another anti-malarial drug, doxycycline, was given to pilots, divers, and those who experienced severe side effects from mefloquine. The pilots and divers received doxycycline because mefloquine “was thought to cause dizziness and loss of fine

motor control in some users”. Despite the known side effects of mefloquine, it was the only drug authorized for widespread general use.

B4. Cues for Writing Command Challenges

These cues were written to help those writing CCs based on personal experiences, but they may be helpful in writing CCs based on documentary sources.

Should you experience difficulties writing a CC refer to these tips:

- i. Think of a person that you admire on the job. Can you recall an incident that convinced you the person was an outstanding performer?
- ii. Think about the last 10 years, can you think of a day when you were particularly effective? What did you do that made you effective?
- iii. Think of a time when you saw an individual do something in a situation and you thought to yourself, "If I were in that same situation, I would have handled it differently." What was the scenario you saw?
- iv. Think about mistakes that you have seen new commanding officers make on the job?
- v. Think about actions taken by more experienced commanding officers that help them avoid making such mistakes.
- vi. Think about something you did in the past that you are proud of.
- vii. Think of a time when you learned something the "hard way". What did you do, and what was the outcome?
- viii. Think of a time when you realized too late that you should have done something differently. What did you do, and what was the outcome?

C. Checklist

Please utilize the following checklist in order to ensure that you have included all relevant sections and information. If your CC is missing a section, or you have not followed the suggest format, please revise your CC to meet the following guidelines.

1. The C.C. represents a military example pertaining to training, deployment, or policies.....	<input type="checkbox"/>
2. The C.C. contains all three sections (E.g. Antecedents, B ehaviours, and C onsequences)	<input type="checkbox"/>
3. There is sufficient and relevant detail included in each section of the report to allow accurate conclusions to be drawn.	<input type="checkbox"/>
4. There are no irrelevant details	<input type="checkbox"/>
5. The C.C. focuses on the behaviours of only one commander.	<input type="checkbox"/>
6. The C.C. is written in past tense	<input type="checkbox"/>
7. The C.C. is written from a third person perspective	<input type="checkbox"/>
8. Military ranks are used to identify personnel in the C.C. (no names)	<input type="checkbox"/>
9. Explanations of all acronyms used in the C.C. have been provided	<input type="checkbox"/>
10. The C.C. describes an event that occurred within the past 10 years.....	<input type="checkbox"/>

Annex E – Sources used in command challenges

BIBLIOGRAPHY

SOURCES USED IN COMMAND CHALLENGES

Books and Monographs

- Gawrych, Dr. George. "Show of Force: Soldiering for Peace." Unpublished draft. Leavenworth: United States Army Command and General Staff College, October 23, 2001.
- German, Tony. *The Sea is at Our Gates*. Toronto: McClelland and Stewart Inc., 1990.
- Gimblett, Richard and Jean Morin. *Operation Friction*. Toronto: Dundurn Press, 1997.
- Haydon, Peter. "The RCN and the Cuban Missile Crisis." In M. Milner, ed. *Canadian Military History*. Toronto: Copp Clark Pitman, 1993.
- Hewitt, James. *Desert Sailor: A War of Mine*. Toronto: Brown Book Company, 1998.
- Loza, Tihomir. "Breaking Bosnia's Refugee Circle" [Internet document]. Available at <http://www.ijt.cz/transitions/topbrbos.html>. Accessed March 17, 1999.
- Maloney, S. M. and J. Llambias. *Chances For Peace: Canadian Soldiers in the Balkans, 1992-1995 An Oral History*. St. Catherines, Ontario: Vanwell Publishing Ltd. 2002.
- Miller, Duncan and Sharon Hobson. *The Persian Excursion: The Canadian Navy in the Gulf War*. Toronto: The Canadian Institute of Strategic Studies, 1995.
- Milner, Marc. *Canada's Navy: The First Century*. Toronto: University of Toronto Press, 1999.
- Park, Rosemary E. "Opening the Canadian Forces to Gays and Lesbians: An Inevitable Decision but Improbable Reconfiguration." In Wilbur J Scott and Sandra Carson Stanley, eds. *Gays and Lesbians in the Military: Issues, Concerns, and Contracts*. Adine de Gruyter: New York, pp. 165-179.
- Robinson, H. Basil. *Diefenbaker's World: A populist in Foreign Affairs*. Toronto: University of Toronto Press, 1989.
- Sheffield, G. and Till, G. "Challenges of High Command in the Twentieth Century." Occasional Paper No. 38. Camberley, UK: Strategic and Combat Studies Institute, 1999.

Swain, Dr. Richard. "Leadership in Peace Operations." Unpublished draft. Leavenworth: Cubic Applications, Inc., November 18, 1999.

Taylor, Scott and Brian Nolan. *Tested Mettle: Canada's Peacekeepers at War*. Ottawa : Esprit de Corps Books, 1998.

Thomas, Patricia and Marie Thomas. "Integration of Women in the Military: Parallels to the Progress of Homosexuals?" In Gregory M Herek, Jared B Jobe and Ralph M Carney, eds. *Out in Force: Sexual Orientation and the Military*. The University of Chicago Press: Chicago), pp. 65-85.

Scholarly Journals

Canadian Medical Association. "Court Decisions." *Canadian Bioethics Report*. 8 May 2000. http://collection.nlc-bnc.ca/100/201/300/cdn_medical_association/cbr/2000/aug00/court.htm

Kinsman, LGen et al. "Canada's Air Operations in the Balkans." *Canadian Military Journal*, Vol 1, no. 1, Spring 2000.

Diaries and Memoirs

Adams, Ken memoirs, Directorate of History and Heritage (DHH), BIOG A.

Brand, Eric Diary, DHH, 81/145.

Strange, William memoirs, DHH, EC Russell Papers, 91/298.

Official Documents

Calvin, Colonel James, Commanding Officer of CANBAT 1 Rotation 2. Testimony of before Croatia Board of Inquiry, www.dnd.ca/boi/engraph/testimony_.asp.

Cohen, William S., Secretary of Defense. Prepared Statement to the Senate Armed Services Committee, 15 April 1999. www.defenselink.mil/specials/kosovo/

Memorandum to the minister, 15 July 1943, and John Joseph Connolly Diaries, National Archives of Canada, Connolly Papers, MG 32 C71, Vol.3.

Public Works and Government Services Canada. "Meritorious Service Decorations." *Canada Gazette*. Volume 133, No. 23. 5 Jun 1999. <http://www.canada.gc.ca/gazette/part1/pdf/g1-13323.pdf>

"Stabilization Forces (SFOR) Press Briefing Transcript: Joint Press Conference, 17 July 1998, 1130 hours. Coalition Press Information Centre, Tito Barracks" [internet document]. Available at <http://www.nato.int/sfor/trans/1998/t980717a.htm>. Accessed 19 December 2002.

United Nations, Department of Public Information. "United Nations Protection Force: Profile". 31 Aug 1996. http://www.un.org/Depts/dpko/dpko/co_mission/unprof_p.htm

DND Sources

1 Wing Kingston. "About Us." www.airforce.dnd.ca/1wing/about_us?about_e.cfm

1 Wing Kingston News. "Shorter Deployments Mean Better Quality of Life at 1 Wing" November 14, 2001
www.airforce.dnd.ca/1wing/news/releases_e.cfm?id=26

1 Wing Kingston News. "Tactical Helicopter Squadron Deploys ... Again" March 8, 2002.
www.airforce.dnd.ca/1wing/news/releases_e.cfm?id=28

1 Wing Kingston News. Lieutenant-Colonel Jean-Luc Milot. "The 12V Concept: What Is It?" October 1, 2002
www.airforce.dnd.ca/1wing/news/releases_e.cfm?id=37

8 Wing -Trenton: Units, 424Transport and Rescue Squadron.
www.airforce.forces.ca/8wing/squadron/424_e.cfm

"10 Days in a Box-Algonquin Arrives in Theatre."
www.marpac.dnd.ca/Apollo/Algonquin/Stories/10_days.htm

"A Different Way to Practice Medicine." www.navy.forces.gc.ca/mspa_news/news_e.asp

Air Force: 1 Canadian Air Division Canadian NORAD Region Headquarters
www.airforce.forces.gc.ca/organization2_e.htm

Air Force: 1 Canadian Air Division Canadian NORAD Region Headquarters Flight Safety (CADFS). www.airforce.forces.gc.ca/orgdocs/hq_fs_e.htm

Air Force Archives: January 2002. "Flying Operations Resumed on Two Air Force Fleets."
www.airforce.forces.gc.ca/news/2002/01/24_e.htm

Air Force Archives: January 2002. "Flying Operations Suspended on Two Air Force Fleets."
www.airforce.forces.gc.ca/news/2002/01/18_2_e.htm

Air Force: FAQs- Becoming a Pilot in Canada's Air Force.
www.airforce.forces.gc.ca/cardocs/pilotFAQ_e.htm

"Algonquin Delivers Stellar Deployment."
www.dnd.ca/menu/Feature_Story/2002/oct02/30oct02_f_e.htm

Atkinson, Melissa. "HMCS OTTAWA coming home." *The Lookout*. 12 Aug 2002.
http://www.lookoutnewspaper.com/20020812_2.htm

Canadian Contingent Stabilization Forces (CCSFOR) Rules of Engagement (ROE) Aide-Memoire For Commanders – Effective 22 January 1997.

Canadian Forces Aircraft: CT-114 Tutor. www.airforce.forces.gc.ca/equip/equiplf_e.htm

Canadian Forces Aircraft: CT-133 Silver Star. www.airforce.forces.gc.ca/equiplg_e.htm

“Canadian Forces Operations in the Balkans 1991-1995” www.dnd.ca/boi/engraph/oper_e.asp

Chief of Defence Staff, Department of National Defence. “Statement from the Chief of Defence Staff”. 20 Aug 01. http://www.dnd.ca/eng/archive/2001/aug01/20defence_n_e.htm

Delaney, Allison. “Boarding party secures personnel, equipment on board GTS Katie.” *The Maple Leaf*. Volume 3, no. 30. 9 Aug 2000.
http://www.dnd.ca/menu/maple/vol_3/Vol3_30/01-02pp.pdfv

Department of National Defence. “HMCS VANCOUVER credited with smuggler apprehension.” 13 Feb 2002.
<http://www.marpac.forces.gc.ca/Apollo/Vancouver/Stories/apprehension.htm>

Department of National Defence. News Release Communique. 14 May 1997.
http://www.forces.gc.ca/eng/archive/1997/may97/praise_n_e.htm

Department of National Defence. “Non-Compliant Boarding”. 15 May 2002.
<http://www.marpac.dnd.ca/Apollo/Ottawa/Stories/boarding.htm>

Department of National Defence. Op Apollo.
www.forces.ca/menu/Operations/Apollo/index_e.htm

Department of National Defence. Op Apollo. “Canada’s Military Contribution to the International Campaign Against Terrorism.”
www.navy.forces.gc.ca/mspa_operations/operations_e.asp

Department of National Defence. *The Statement of Defence Ethics*.
http://www.forces.gc.ca/ethics/pages/statem_e.htm

Dubois, Aline. “Meritorious Service Medals for 5 CF Members.” *The Maple Leaf*. Volume 4, no. 42. 21 Nov 2001. http://www.dnd.ca/menu/maple/vol_4/vol4_42/vol44216.pdf

Eligible Health Services, Medical services excluded from entitlement
www.forces.gc.ca/health/services/...ible_hs_e.asp?hssubmenu=health_info_home

“Fleet Medical Officer, May 9th Began as a Typical Day.”
www.marpac.dnd.ca/Apollo/Algonquin/Stories/MD.htm

Human Rights Tribunal Report, 1989, www.forces.gc/site/minister.

“Laser eye surgery now part of air force vision.” *Maple Leaf* Vol 2, no. 18
www.dnd.ca/menu/maple/vol_2/Vol2_18/dnews_e.htm

LeBlanc, Andrea. "Rescue on the Ice." www.airforce.dnd.ca/news/2001/01/25_e.htm

Maritime Staff Research Report 99-1. "Mixed Gender Crewing of *Victoria* Class Submarines, 1999, www.navy.forces.ca

Office of the Judge Advocate General. "Courts Martial and Appeals." 18 November 2002, and *The National Defence Act*, (RS 1985c. N-5), www.dnd.ca.

Magazines and Newspapers and Other Media Sources

"Art Eggleton on the hot seat." Transcript. *The National*. 30 Jan 2002.

<http://www.tv.cbc.ca/national/trans/T020130.html>

Bevacqua, Frank. "High Water Levels Threaten Canada-US Boundary Region in 1997." *International Joint Commission* Volume 22, Issue 2. July/August 1997.

<http://www.ijc.org/focus/v22i2/feat03.html>

Blanchfield, Mike. "Equality under the waves." *Montreal Gazette*. 9 March 2001, p. A10.

"British Columbia: Verdict expected today in sailor's sexual assault case." *National Post*. 18 November 2002, p. A8

Canada's Aviation Hall of Fame, Canadian Forces Search and Rescue (SAR).

www.cahf.ca/CASARA.htm.

CBC News: In-depth Backgrounder, Laser Surgery, "Oh say, can you see? The fuzzy world of laser eye surgery" www.cbc.ca/news/in-depth/background/laser_eye.html

CBC News, "Laser eye surgery factor in dangerous driving"

<http://cbc.ca/cgi-bin/templates/view.cgi...news/2000/08/28/Consumers/lasereye000828>

CBC News, "Laser eye surgery warning"

<http://cbc.ca/cgi-bin/templates/view.cgi...ch&story=/news/1999/02/18/lasereye990218/>

Cox, Kevin and Jeff Sallot. "Navy to let women sail on submarines." *The Globe and Mail*. 9 March 2001, p. A 11.

Edmonds, Scott. "Judge agrees anthrax vaccine unsafe." *The Canadian Press*. 5 May 2000.

http://www.canoe.ca/Health0005/05_anthrax.html

Gray, Jeff. "Military orders new trial in anthrax case." *The Globe and Mail*. 14 Jan 2002.

<http://www.theglobeandmail.com/servlet/RTGAMArticleHTMLTemplate/C/20020114/>

Lambie, Chris. "Leaky Sub fails Sea Trials." *Calgary Herald*. 5 July 2002, p. A13.

----- "Crew refuses to go to sea in used submarines." *The St. John's Telegram*. 29 September 2002, p. A5.

Leblanc, Daniel. "PM backs Eggleton as attacks intensify." *The Globe and Mail*. 28 Feb 2002.
<http://www.globeandmail.com/servlet/ArticleNews/printarticle/gam/20020228/UEGGSN>

Matas, Robert. "Navy commander relieved of duty over Internet porn." *The Globe and Mail*. 19 Jun 2001.

"Navy opens subs to women." *The Charlottetown Guardian*. 9 March 2001, p. B6.

"Our sailors balk at going on sub safety worries delay sea trial." *Winnipeg Free Press*. 29 September 2002, p.A7.

Pugliese, David. "Navy saw no risk in British subs." *The Ottawa Citizen*. 3 May 2002, p. A.3.

"Reasonable doubt acquits sailor of sex assault." *The Province*. 19 November 2002, p. A4.

Roman, Karina. "Naval pioneer awaits new challenge." *The Ottawa Citizen*. 9 March 2001, p. A3.

"Sailors refuse orders to sail." *The Province*. 29 September 2002, p. A 28.

"Sailors snub faulty British sub." *The Ottawa Sun*. 29 September 2002, p.7.

Spurr, Bill. "Sub credibility has taken a dive." *The Chronicle Herald*. 26 September 2002, p. A1.

Sturino, Idella. "Tensions wane on seized cargo ship." *The National Post*. 7 Aug 2000.
<http://canada-acsus.plattsburgh.edu/cannews/natpost080700.htm>

Surette, Louise. "Navy divers prepare for difficult task." *The Halifax Herald Limited*. 10 Sep 1998. <http://www.herald.ns.ca/cgi-bin/home/displaypackstory?1998/09/10>

Tamoto, Connie. "No Harassment: Proud sailor says she's never had trouble," *Winnipeg Sun*. 5 March 2003, p.3.

"Testimony raises questions about Eggleton's story." Transcript. *The National*. 26 Feb 2002.
<http://www.tv.cbc.ca/national/trans/T020226.html>

"Verdict today." *The Province*. 18 November 2002, p. A4.

Walker, James. "Up in Arms." *ABC News*. 4 Aug 2000.
<http://abcnews.go.com/sections/world/DailyNews/canada000804.html>

Ward, John. "Canadian frigate seizes ship in Arabian sea suspected of oil smuggling." *Yahoo! Headlines* (8 Feb 20 02). <http://ca.news.yahoo.com/020208/6/ipoj.html>.

Watt, Margaux. "Mike Kipling Interview." *CBC Manitoba*. 11 Apr 2002.
<http://www.winnipeg.cbc.ca/radio1/afternoon/archives.html>

Winsor, Hugh. "Why the top brass spoke out." *The Globe and Mail*. 28 Feb 2002.
<http://www.globeandmail.com/servlet/ArticleNews/printarticle/gam/20020228/UWINSN>

Wynne, Eric. "Women cleared to man subs." *Calgary Herald*. 9 March 2001, p. A1.

Young, Gerard. "Court Martial adjourned as evidence mulled." *Victoria Times Colonist*. 14 November 2002, B9.

Interviews

Interviews with British Army Personnel, January 2003.

Interviews with CF personnel, Bosnia, January 2003.

Interview with Hercules Aircraft Commander, Captain Mark Weidenborner, 424 Squadron, 8 Wing, CFB Trenton.

Interview with Lieutenant-Colonel R. H. Meiklejohn, Chief of Staff, 1 Wing, Kingston.

Interview with unnamed Leading Seaman (now promoted to Master Seaman). Telephone Interviews. HMCS UNICORN. 28 Nov 2002 & 3 Dec 2002.

Annex F – A guide to using the command challenges tool for the Pigeau-McCann framework

**A GUIDE TO USING THE
Command Challenge Analysis Tool
FOR THE PIGEAU-MCCANN FRAMEWORK**

Version: 30 Mar 03

Chapter One: Introduction

This manual has been written to assist those using the Pigeau-McCann framework for command and control in evaluating Command Challenges (CCs) using the Command Challenge Assessment Tool (CCAT). The manual has six chapters. The first chapter is this introduction. The second chapter is a brief explanation of the Pigeau-McCann framework for command and control. The third chapter consists of detailed instructions on how to use the CCAT. The fourth chapter contains instructions for using the electronic version of the CCAT. Chapter five gives details about the administration of the CCAT. The final chapter contains FAQs.

The Pigeau-McCann framework is a new way of looking at command, control and command and control (C²). By separating C² into its constituent elements, it is intended to provide a comprehensive and consistent base both for the scientific investigation of C² and for the development of military C² policy and doctrine. An important aspect of testing the utility of the framework is to use it to evaluate actual situations in which military personnel confronted operational challenges. The results of this evaluation will be used to validate the framework, to suggest ways of modifying the framework, and to provide feedback to the CF on how C² practices in the CF can be improved.

The CCs have been specially selected to reflect real operational situations that have a direct bearing on C² in the CF. Sometimes, if there are issues of confidentiality, the names of individuals involved in the CC are not given. While all the CCs are based on events that actually happened, they have not been written to conform to the Pigeau-McCann framework. Therefore, there may be CCs where the framework is inadequate in helping to elucidate the issues. In this case you, the evaluator, will be asked to comment.

The next chapter explains key concepts in the Pigeau-McCann framework for command and control. Evaluators should read it before using the CCAT.

Chapter Two: The Pigeau-McCann Framework for Command and Control

Before evaluators begin assessing CCs, they should be familiar with the Pigeau-McCann framework for command and control. This chapter provides an overview of the framework. More details can be found by referring to the bibliography at the end of this chapter.

Since the mid-1990s, Pigeau and McCann have been developing a re-conceptualization of command, control and C^2 that is intended to provide a comprehensive and consistent framework both for the scientific investigation of C^2 and for the development of military C^2 policy and doctrine. The intention of this new framework is to provide a unifying construct for discussing, exploring and explaining the multi-faceted nature of command and control.

The core axiom that *only humans command* provides the necessary unifying construction which the Pigeau-McCann framework bases its new definitions of command and of control. In addition, the framework hypothesizes a set of capabilities that are necessary and sufficient for effective command, it establishes the proper relationship between command and control, and it re-defines the concept of C^2 in terms of *common intent*.

The Pigeau-McCann framework for command and control clearly separates the concepts of command, control and C^2 . The concept of *command*, the centerpiece of the framework, is defined as “the creative expression of human will necessary to accomplish the mission” (Pigeau and McCann, 2002). This places command (and by extension, C^2) squarely in the domain of the human, asserting that human qualities like judgement, motivation, and courage are essential for effective command. The framework, however, does not limit command only to commanders (see Pigeau and McCann, 2001 for a discussion of the distinction), but instead argues that, in principle, any human can command. It further hypothesizes that the degree of *command capability* embodied by a military person is a function of that person’s *competency*, *authority* and *responsibility*.

These three dimensions of command capability can be subdivided further as follows:

Competency

- Physical competency - the ability for sustained and skilled performance of tasks requiring physical effort and involving the senses and the body (e.g., endurance, the ability to see and hear well).
- Intellectual competency - the ability for skilled performance of mental or intellectual tasks such as reasoning, problem solving, creativity, decision making, visualizing, planning, judgment and ability to learn.
- Emotional competency - the ability to handle and cope with situations that are personally stressful or that are stressful for others.
- Interpersonal competency - the ability to interact socially with other individuals including the ability to speak and write well, to show concern for others, and to be perceptive in social situations.

Authority

- Legal authority - the degree of formal power given to an individual by the military organization, specifically, the power over resources and personnel.

- Personal authority - the degree of informal power given to an individual by others (including subordinates, peers and superiors), earned, for example, through reputation, integrity, experience, strength of character and personal example.

Responsibility

- Extrinsic responsibility - the willingness of an individual to be held accountable for his or her actions to another person or to an organization.
- Intrinsic responsibility - the degree of personal commitment (moral or otherwise) that an individual feels towards another individual, towards an organization, or towards the mission.

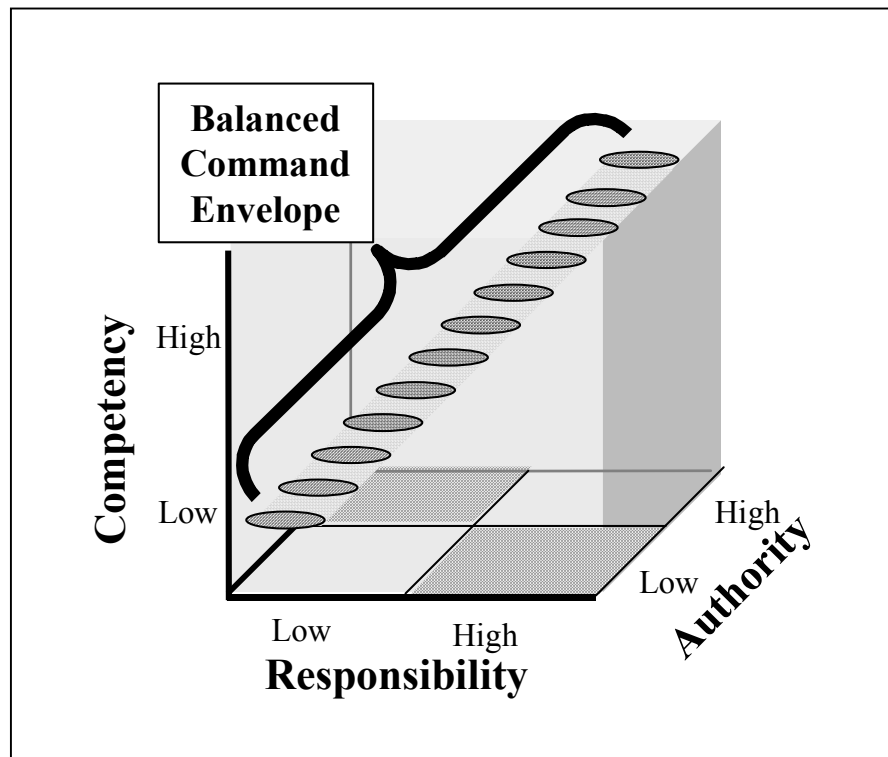


Figure F1 – The Balanced Command Envelope

It is proposed that the ideal levels of competency, authority and responsibility held by military members will increase with rank and experience. Furthermore, the competency, authority and responsibility of any individual must be in balance for effective command – that is, the degree of an individual’s competency must be commensurate with the degree of authority, and that authority, in turn, must be commensurate with the person’s responsibility. Crucially important is the balance across the authority-responsibility dimensions. If a member holds high authority without a commensurate degree of responsibility, which the framework terms “dangerous command,” there is potential for mis-use of that authority. Conversely, when responsibility exceeds authority – that is, a military member feels more accountable or more committed than the level of authority given or earned – this can lead to “ineffectual command.” Both of these imbalances must be avoided, as, indeed, must any imbalance between these dimensions and that of

competency. The framework introduces the idea of the *Balanced Command Envelope (BCE)* to refer to that desirable portion of the *command capability space* where the three dimensions are balanced, and where it is desirable that all military members lie, as shown in Figure 1 above. The command capabilities and the implications of an imbalance in the command dimensions are discussed in more detail in (McCann and Pigeau, 1999) and in (Pigeau and McCann, 2001).

The second important concept within the framework is that of *control*. The framework defines the concept of control as “those structures and processes devised by command to enable it and to manage risk” (Pigeau and McCann, 2002). Control’s sole purpose is to support command by allowing it to take action in the operational context. In essence, control consists of the set of tools that have been developed and implemented by humans to help them command efficiently, and especially, to help them handle operational uncertainty. Control structure and process are realized through a variety of mechanisms, including doctrinal guidelines, rules of engagement, organizational structure, software technologies and equipment. The relationship between C^2 and the notion of control as a support for command is explored in more detail in (McCann and Pigeau, 1999). Table 1 below shows some actions that are related to command and to control.

Commanding	Controlling
To create new structures and processes (when necessary)	To monitor structures and processes (once initiated)
To initiate and terminate control	To carry out pre-established procedures
To modify control structures and processes when the situation demands it	To adjust procedures according to pre-established plans

Table 1 - Command and Control as Actions

The concept of *command and control* (C^2) is the third principle concept that is addressed by the framework and it is defined as “the establishment of common intent to achieve coordinated action.” The core idea in this definition is that of *common intent* – i.e., shared intent. According to the framework, there are two parts to intent. The first is *explicit intent*, the part of intent that is made publicly available through orders, briefings, questions and discussions. But since it is impossible to be completely explicit about every aspect of an operation, the interpretation of explicit intent is supported by a vast network of *implicit intent*. Implicit intent derives from personal expectations, military training, tradition and ethos and from deep cultural values. The framework proposes that all members of a military organization must share intent at both the explicit and implicit level for C^2 to be successful. The concept of common intent as a basis for C^2 and the mechanisms by which intent is shared are addressed in (Pigeau and McCann, 2000).

These principal concepts of the Pigeau-McCann framework, namely, the concepts of explicit and implicit intent, the command capabilities, control support for command and the balanced

command envelope will be used in the evaluation of the CCs. A thorough understanding of them is an important pre-condition to effective evaluation.

Bibliography

The following works may be consulted for more details about the Pigeau-McCann framework:

McCann, C., & Pigeau, R.A. (1999, 29 June - 1 July). *Clarifying the concepts of control and of command*. Proceedings of the Command and Control Research and Technology Symposium, Newport, RI.

Pigeau, R.A., & McCann, C. (2000). Re-defining Command and Control. In C. A. McCann & R. Pigeau (Eds.), *The Human in Command: Exploring the Modern Military Experience* (pp. 163 -184). New York: Kluwer Academic/Plenum Publishers.
Pigeau, R. A., & McC

Ann, C. (2001). What is a Commander? In B. Horn & S. J. Harris (Eds.), *Generalship and the Art of the Admiral: Perspectives on Canadian Senior Military Leadership* (pp. 79-104). St Catherines, ON: Vanwell Publishing Limited.

Pigeau, Ross, & McCann, C.. "Re-conceptualizing Command and Control." *Canadian Military Journal* Vol. 3, no. 1 (Spring 2002), pp. 53-63. (Available online at [http://www.journal.forces.gc.ca/.](http://www.journal.forces.gc.ca/))

Chapter Three: Using the CCAT

This chapter is designed to give you, the evaluator, detailed instructions on the completion of the CCAT form. In general, the CCAT asks you to provide numerical ratings and explanations for various aspects and factors of the CC that have been derived from the Pigeau-McCann framework. This chapter is laid out to guide you through the CCAT one section at a time, showing the types of ratings and explanations to be entered. It is recommended that you refer to Appendix A to this guide (the paper version of the CCAT) when reading this chapter. It is important to understand and apply the principles of the Pigeau-McCann framework while using the CCAT. If you have any doubts, refer back to Chapter Two.

Completing the CCAT

Throughout the CCAT, you will find spaces labelled “explain” for you to provide any elaboration, should you wish to do so, to your numerical assessments. You are not required to fill in any of these spaces, but you may complete them if you wish. The one exception to this rule is if you decide to re-score a CC in one of the first two scores for any reason (for instance, after comparison to a similar situation in another CC), and then you should explain why in the space provided (see Section 6- Overall Assessment of the CCAT).

General

Put your name in the space provided next to “Rater” shown on page A2 of Appendix A.

For each CC put its number, title and the focal person for that CC in the spaces provided.

The first two scores you are asked to provide are designed to capture your first impressions after reading the CC. These impressions should be used to give focus to your detailed assessment of the CC from two perspectives: organizational, and the focal person. First, assign a score to rate, from an organizational perspective, the outcome of this CC, assuming a favourable outcome is the organization’s desired outcome in each case. Next assign a score to rate, from the focal person’s personal perspective, the outcome of this CC. If you are unsure whether either of the outcomes were positive or negative, assign a “Neutral” (0) rating. You may change these first two scores after completing the detailed evaluation of the CC, but you are asked to provide an explanation in the space provided.

Please use only the information provided in the CC as written, even if you are familiar with a CC and you believe that you know additional details. This is crucial to maintaining a consistent baseline amongst evaluators. However, if you do have additional knowledge about the CC, please note this in the explanation box.

Factors: CAR

Once you have completed the first section of the CCAT, rate, from the focal person's perspective, the three dimensions of command capability -- competency, authority, and responsibility, (CAR). Each dimension is described in more detail below.

In evaluating the extent to which each of the factors of CAR were (or were not) involved in each CC, you will be first asked to examine *primary factors* followed by *support factors*. Primary Factors are personal aspects of the focal person that play a *direct* role in the outcome of the CC. They are those factors related to "command" as defined above. Support Factors are equipment and/or processes that may support the Primary Factors. Support Factors are factors related to "control" as defined above. If a factor does not have a direct impact on the outcome of the CC it is rated "Not a factor." If a factor is rated as having a direct impact on the outcome of the CC, you must decide if it had a positive or negative impact, from the focal person's perspective, and assign it a rating.

1. Competency

1.1 Physical Competency

The first of the four components of competency is physical. Physical competency can be described as the ability of the focal person in the command challenge for *sustained* and *skilled* performance of sensory-motor tasks involving physical effort. For example, physical competency would include such characteristics as strength, visual or auditory acuity, endurance, vigilance, manual dexterity, and so on.

In assessing the role physical competency played in a CC identify what aspect (or aspects) of physical competency influenced the outcome of the CC. To further clarify the issue, consider whether the physical competency effect is a result of a *primary factor* or a *support factor*.

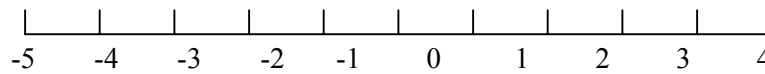
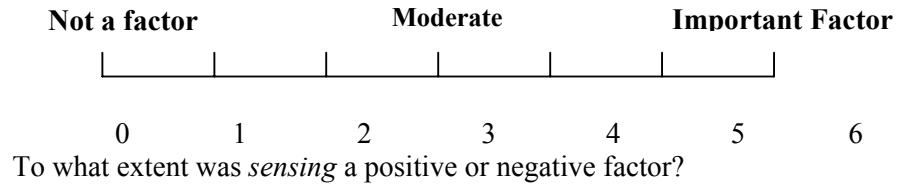
Example: if the focal person lacked the visual acuity required to perform a task, then the sense of sight is a primary factor. If, however, the focal person possessed appropriate vision but experienced a problem with malfunctioning night vision goggles, then the issue is a support factor.

This same procedure should be repeated for each of the four primary factors: sensing, acting, maintaining and experience (any additional primary factor(s) that you may have identified that is not listed should be mentioned in the explanation). The same should be done with the support factors i.e., sensing equipment, support equipment, supplies and support, and training. When either a primary or support factor is identified as influencing the outcome, a brief explanation of how you believe the factor impacted the physical competency may be provided if you think it is necessary to expand upon or clarify your numerical rating.

The first physical competency factor to be assessed is A1 Sensing (see Figure F2 below).

A1. Sensing (e.g., Observing, hearing, etc)

To what degree was *sensing* a factor in the behaviour of the focal person in the Command Challenge?



Explain:

Figure F2 - “A1 Sensing” from p. A3 of the CCAT

The first question to be answered is whether or not the physical competency of “Sensing” was in fact an issue in the challenge. In other words, did “Sensing” influence the outcome, either positively or negatively, of this particular challenge? Ask yourself the question: “Was this factor important to the focal person in this CC?” If the answer is *no*, then mark 0 (“Not a factor”) in response to the first question, and 0 (“Neutral”) as the response to the next question. If the answer is *yes*, then rate the degree to which sensing was a factor and then the extent to which it was a positive or negative factor. Then move on to consider A2 Acting. If the answer is *yes*, assign an appropriate number on the scale 0-6, add any explanatory notes if necessary, and then proceed to A2 Acting. Respond to the questions for each primary and support factor in a similar manner. After completing Parts A (primary factors) and B (support factors), proceed to Part C.

Part C provides a place for you to provide your overall evaluation of the importance of this competency in the CC. You may go back and review your previous scores, **but do not use the mathematical average or mean of these previous scores to assess its importance.** Instead, use your best judgement to give a score that reflects your overall impression of the contribution of this factor. In the space provided for an explanation, you may add a factor that was not accounted for in the framework or any other necessary remarks.

When the CC has been analysed from the perspective of physical competency, the next step is to consider the second area of competency – intellectual competency.

1.2 Intellectual Competency

The second area to consider that may influence the outcome of a specific CC is intellectual competency. Intellectual competency is defined as the ability shown by the focal person in the CC for skilled performance of mental or intellectual tasks such as reasoning, problem solving, creativity, decision-making, visualizing, planning, judgment and ability to learn.

In analysing intellectual competency, identify what aspect (or aspects) of intellectual competency influenced the outcome of the command challenge. As was the case in physical competency, it is necessary to determine if the intellectual competency effect is a result of a primary factor or support factor. In this case, the primary factors are: Situational Awareness (understanding, too little or too much information) Problem Solving (decision making, time pressure), Creativity (novel solutions, creating new SOPs, changing plans), Maintaining (sleep loss, work/rest cycles, acute stress), and Experience (number of tours, range of jobs, years of service).

In assessing the role intellectual competency played in a CC, identify what aspect (or aspects) of intellectual competency influenced the outcome of the CC. As in section 1.1, consider whether the intellectual competency effect is a result of a primary factor or a support factor.

Example: the focal person may have lacked situational awareness due to a failure to adequately monitor a developing situation. In this case a score would be assigned in A1 Situational Awareness. A support factor (e.g., Information Systems) may or may not have contributed to a lack of situational awareness. If a particular support factor was not relevant it is scored as 0 (Not a Factor).

Begin scoring with A1 Situational Awareness and consider all the primary and support factors followed by your overall assessment of the contribution of this competency to the outcome of this CC, as you did in section 1.1.

Note: The factor Endurance (e.g., general fitness, fatigue, injuries, sickness, etc) could be interpreted a number of ways. For the purposes of the CCAT, this factor should be assessed in the context of how cognitive or decision making abilities were affected by endurance or a lack of it. Endurance is related to the factors of Short-Term and Long-Term Resilience under section 1.3, Emotional Competency, but in the context of Intellectual Competency in this section, it is the cognitive, not the emotional, aspects of this competency are to be assessed.

When the Command Challenge has been analyzed from the perspective of intellectual competency, the next step is to consider the third area of competency – emotional competency.

1.3 Emotional Competency

In the CCAT, emotional competency is defined as the ability to handle and cope with situations that are personally stressful or that are stressful for others. Emotional competency includes, for example, the ability to cope in emotionally charged situations, to control anger, to maintain a sense of humour, to keep a balanced perspective. These factors are related to emotional hardiness and affective resilience.

Begin scoring with the primary factor of Short-Term Resilience and consider all the primary and support factors followed by your overall assessment of the contribution of this competency to the outcome of this CC, as you did in section 1.1.

Note: As indicated above, the factors Short-Term Resilience and Long-Term Resilience in this section are to be assessed in the context of the emotional aspects of this competency.

When the Command Challenge has been analyzed from the perspective of emotional competency, the next step is to consider the fourth area of competency – interpersonal competency.

1.4 Interpersonal Competency

In the CCAT, interpersonal competency is defined as the ability to interact successfully with other individuals. This includes, for example, articulateness, empathy, perceptiveness and social sensitivity.

Begin scoring with Language Skills and consider all the primary and support factors followed by your overall assessment of the contribution of this competency to the outcome of this CC, as you did in section 1.1.

Once you have finished analyzing the competencies of the focal person in the CC, the next step is to assess that person's authority based on the Pigeau-McCann framework.

2. Authority

In the Pigeau-McCann framework, authority is viewed as the degree to which a focal person is empowered to act, including the scope of this power and the resources available for enacting his/her will. Authority is divided into two components – legal and personal.

2.1 Legal Authority

In the CCAT, legal authority is defined as the degree of power formally given to an individual by the military organization. Legal authority includes power over both resources and personnel, as well as the power to act.

Begin scoring with Mission/Task Mandate and consider all the primary and support factors followed by your overall assessment of the contribution of this factor to the outcome of this CC, as you did in section 1.1.

When the CC has been analyzed from the perspective of legal authority, the next step is to consider the second area of authority – personal authority.

2.2 Personal Authority

In the CCAT, personal authority is defined as the degree of empowerment provided informally and tacitly to an individual by superiors, peers and subordinates. It is that authority earned, for example, through reputation, experience, strength of character and personal example.

Begin scoring with Influence Up and consider all the primary and support factors followed by your overall assessment of the contribution of this factor to the outcome of this CC, as you did in section 1.1.

Once you have finished analyzing the focal person's authority in the CC, the next step is to assess that person's responsibility based on the Pigeau-McCann framework.

3. Responsibility

In the Pigeau-McCann framework, responsibility addresses the degree to which an individual accepts the legal and moral liability commensurate with command. There are two components to responsibility: extrinsic and intrinsic.

3.1 Extrinsic Responsibility

In the CCAT, extrinsic responsibility is defined as the willingness to be held accountable to another person or to an organization for actions taken. It usually entails meeting formal or legal expectations for behaviour or performance, although it can also entail informal expectations on the part of peers and subordinates.

Begin scoring with Understanding of Accountability and consider all the primary and support factors followed by your overall assessment of the contribution of this factor to the outcome of this CC, as you did in section 1.1.

Notes: 1. In this section Understanding of Accountability refers to the focal person's personal understanding of accountability.

2. In this section Enforcement of Accountability, as a support factor, refers to whether or not the organization has a history of enforcing accountability. This gives the focal person a sense of what risk he or she is taking in assuming responsibility, and is therefore related to Willingness/Reticence to be Accountable.

When the CC has been analyzed from the perspective of extrinsic responsibility, the next step is to consider intrinsic responsibility, the second dimension of responsibility.

3.2 Intrinsic Responsibility

In the CCAT, intrinsic responsibility is defined as the degree of self-generated commitment (moral or otherwise) that one feels towards an individual or organization. Intrinsic responsibility is associated with the concepts of dedication, honour, fame, pride, and loyalty.

Begin scoring with A1 Motivation and consider all the primary and support factors followed by your overall assessment of the contribution of this factor to the outcome of this CC, as you did in section 1.1.

Note: In this section, the support factors of formal recognition methods, informal recognition methods, and opportunities for growth are extrinsic factors that may influence intrinsic responsibility.

Once the three dimensions of a focal person's command capability have been assessed, the next step is to locate the focal person in the command capability space in relation to the Balanced Command Envelope.

4. The Balanced Command Envelope (BCE)

The *command capability space* is defined by the three dimensions of command capability – competency, authority, and responsibility. This part of the CCAT is provided for you to situate the focal person of the CC in the command capability space in relation to the BCE (see Figure F1 for a depiction of the BCE).

4.1 Command Dimensions

These are the Command Dimensions to be considered when placing the person in the command capability space:

- a. *Competency*: the combination of skills and abilities available to the focal person to deal with the CC.
- b. *Authority*: the degree to which the focal person is empowered to act, the scope of this power and the resources available for enacting will in this CC.
- c. *Responsibility*: the degree to which the focal person accepts legal and moral commitment in this CC.

See p. A36 for the portion of the CCAT used to evaluate the focal person's position in the *command capability space*.

First, based on your assessment of the focal person's command capability (competency, authority, and responsibility), use the scale to assess whether, from an organizational perspective, whether the focal person in this CC was on the Balanced Command Envelope. If you are uncertain, assign a score of 0. If you are certain the focal person was on the BCE, use the positive scale to indicate your degree of certainty, and conversely use the negative scale if you are certain the focal person was not on the BCE.

Use the three scales that follow to assess the adequacy of the focal person's overall competency, authority and responsibility, from an organizational perspective.

After situating the focal person of the CC in the command capability space in relation to the BCE, the next step is to assess the shared or common intent dimensions of C².

5. Command and Control

In the CCAT, command and control is defined as the establishment of common intent to achieve co-ordinated action.

In this part of the CCAT you will assess the ability of the focal person to create explicit, implicit, and common intent.

5.1 Explicit intent

Explicit intent is defined as the publicly communicated aim or purpose. Determine if either of the primary factors (i.e., those that played a direct role in the behaviour of the focal person in this CC, such as aim or purpose and use of language) was involved. If you determine they were, assess the degree to which they were involved using the scales provided. Then determine if either of the support factors (i.e., any control structure and processes, such as means of communication and time available) were a factor, and if so assess the degree to which they were involved using the scales provided.

After assessing explicit intent, assess implicit intent.

5.2 Implicit intent

Implicit intent is defined as the connotations of the aim or purpose. While explicit intent is publicly communicated, implicit intent is communicated in other ways, such as by personal expectations, military training, tradition and ethos, and from deep cultural values.

Implicit intent is affected by such things as personal, service, ethnic or national differences. If you assess that any of these things were a factor in this CC, then evaluate to what extent they had a positive or negative effect.

As in section 5.1, assess the impact of the support factor, in this case the opportunity for sharing implicit intent.

After assessing implicit intent, assess common intent.

5.3 Common intent

Common intent is defined as the sum of shared explicit intent and the operationally-relevant portions of shared implicit intent. The assessment in this section reflects your summary evaluation of the overall importance of common intent in the CC, i.e., to what degree do you believe that the establishment of common intent (or lack of the establishment of common intent) was a factor in this CC?

After assessing command and control, the final section of the CCAT allows you to provide an overall assessment of the effectiveness of the Pigeau-McCann framework for analyzing the CC under consideration.

6. Overall Assessment

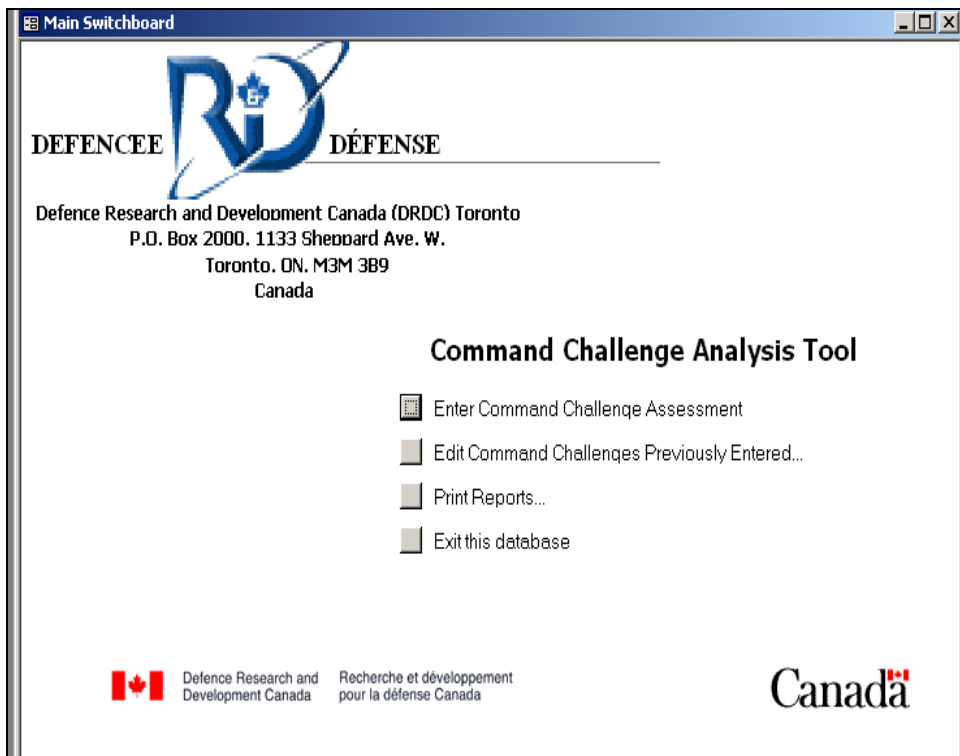
Use the scale to rate the adequacy of the particular CC description for analysis using the CCAT. Then rate how useful you thought the Pigeau-McCann framework was for analyzing this CC. If you thought that there were important aspects of the CC not covered by the framework, use the space provided to amplify a “Yes” answer.

Lastly, there is a space for any other pertinent “Final Comments” or observations not appropriate to any “Explain” box elsewhere in the CCAT, or to bring emphasis to previous comments. If you decided to re-score a CC for any reason, this should be noted in the “Final Comments” box along with your reasons for re-scoring this CC.

Chapter Four - Using the Electronic Assessment Tool

The electronic version of the CCAT form was created in Access 2000, which converted the 44-page evaluation form and made it a user-friendly, database application. Evaluators must have Access 2000, or greater, on their personal computer to take full advantage of this database.

The program opens to the main menu, which has a series of menu options; *Enter*, *Edit*, *Print an Assessment*, and *Exit the Database*. These give evaluators the convenience and opportunity to enter, review, re-evaluate and print an assessment, needed.



- ◆ **Enter Command Challenge Assessment**
Provides the users with all the pages of the CCAT form. Refer to Chapter 3 for full details and instructions on the completion of the CCAT form. The program is laid out to guide the evaluator through the CCAT one section at a time.
- ◆ **Edit Command Challenge Previously Entered**
Allows the user to review and re-evaluate his/her assessments, as well as the ability to stop any CC and come back to it later.
- ◆ **Print Reports**

Allows the user to print one or all assessments currently entered into the database. These reports provide a condensed hard copy of the CC on legal size paper.

- ◆ Exit this database
- ◆ Quit the program.

Entering an evaluation using the “Enter Command Challenge Assessment” Option

Once the user has selected the “Enter Command Challenge Assessment” option, he/she is prompted with the first page of the CCAT form.

- ◆ To move around in this form and throughout the program, use the “**Enter**” key or the “**Tab**” key on your keyboard.
- ◆ The evaluator field has a drop down list box of each evaluator’s name currently involved in this program as an evaluator.
- ◆ The Command Challenge field prevents the user from entering two CCs with the same number and is automatically filled for the user on all subsequent forms
- ◆ The Rating field has a drop down list to prevent the user from entering invalid ratings.

When **all** fields are entered in accordance with Chapter 3, click the “**Continue**” button (located in the upper right-hand corner) to proceed to the next page of the form. Of note, the user must answer all questions on this form.

◆ The CC# is automatically entered for the user on all subsequent forms.

◆ If the reply to the “To what degree...” question is 0 the program automatically assign a 0 to the following “To what extent...” Question and “N/A” in the explain field.

◆ Press “Tab” or “Enter” on your keyboard to go to the next factor.

◆ Click, “Continue” to go to the next sequence of questions.

◆ The Back arrow icon allows the user to review the data previously entered in previous sections of a CC.

Proceed through the evaluation form by using the “Tab” key or the “Enter” and “Continue” button.

4. Balance Command Envelope (BCE) Command Challenge No: 1

Competency: - the combination of skills and abilities available to the focal person to deal with the CC.
 Authority: - the degree to which the focal person is empowered to act, the scope of this power and the resources available for enacting will in this CC. ◀ Continue

Responsibility: - the degree to which the focal person accepts legal and moral obligations in this CC.

Balanced Command

Assess the following statement:
 How certain are you that, from an organizational perspective, the focal person in this CC was on the Balanced Command Envelope? No Ans ▾

Adequacy in Dimensions

Assess, from an organizational perspective, the adequacy of the focal person's overall Competency: No Ans ▾
 To review what you have already enter on Competency 🔍

Assess, from an organizational perspective, the adequacy of the focal person's overall Authority: No Ans ▾
 To review what you have already enter on Authority: 🔍

Assess, from an organizational perspective, the adequacy of the focal person's overall Responsibility: No Ans ▾
 To review what you have already enter on Responsibility: 🔍

Explain:

Press the "Continue" button to go to next question.

Preview button allows the user to review previously entered data in each sub-section.

If the preview report is blank use the back arrow icon to revisit the data in each field. Ensure that all the questions have been answered.

6. Overall Command Challenge No. 1

6. Overall Assessment ◀

To what extent did you feel that the CC provided adequate information for analysis using the framework? 0 ▾

Explain:

Overall Utility of Framework

In your opinion, how useful was the framework for analysing their Command Challenge? 0 ▾

Are there important aspects of this Command Challenge that are not covered by the framework?

Explain

Final Comments

📄

Once the user has completed the form, click on the "Exit" icon to return to the main menu.

Reviewing or re-evaluating a previously entered CC.

Once the user has selected the "Edit Command Challenge Previously Entered" option, he/she is prompt with the first page.

Use the record selector on the bottom of the screen until the CC number that you want to edit/review is displayed in the Command Challenge Field. Then click the "Continue" button (Located in the upper right hand corner) to review the data on that CC.

The Previous arrow key and the Continue arrow keys allow the user to freely review and edit data previously entered in a CC.

You might find that you have to click the "Previous" or the "Continue" key in a firm and deliberate manner.

Once you are finished editing the CC, press the forward key until you get to the end of the form.

Press the “Return to Main Switchboard” button to return to the main menu.

“Print a Report” Option

Once the user has selected the “Print a Report” option, he/she is prompted with a second menu with three options. *Print One*, *Print All Assessments*, and *Return To Main Switchboard*.

- ◆ **Print One Command Assessment**
The program will prompt the user for a CC number. Enter the CC number that you wish to print.

Note: If the print request comes up with a blank form, exit this report by pressing the “X” on the upper portion of the screen. Go back to the edit function and edit the CC that is in the database – Remember to use the navigation bar **at the bottom of the screen** to select the CC. Once the CC has been reviewed, and missing data entered, go back to the Main menu and re-enter your print request.

When you see a complete report, press "File", then "Print" from the menu bar at the top of the screen. Ensure that you have **legal size paper** in your printer

- ◆ Print all Command Assessments
This will print all the assessments **that are complete** in the database. If an assessment that you feel was complete is missing from the report, use the edit function to review the data found on that CC and complete the evaluation.

- ◆ Return to the Main Switchboard
Once pressed will return you to the main switchboard and you can exit the program.

Chapter Five - Administration of the CCAT

(This chapter to be completed when DRDC-Toronto establishes a system for collecting and analyzing CCs.)

Chapter Six – Frequently Asked Questions (FAQs)

(This chapter to be completed when DRDC-Toronto establishes a system for collecting and analyzing CCs.)

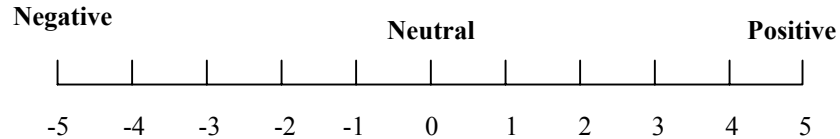
Annex G – Command challenge analysis tool

Please answer all of the following questions.

Title of Command Challenge: _____

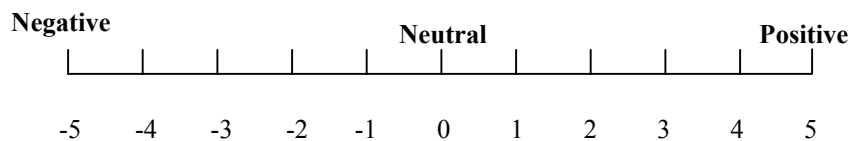
Focal person: _____

From an organizational perspective, rate the outcome of this CC:



Explain: _____

From the focal person's perspective, rate the outcome of their behaviour in the CC:



Explain: _____

Physical Competency

1. Competency

The skills and abilities required for successfully accomplishing military objectives. These skills or abilities are divided into the following four areas: physical, intellectual, emotional and interpersonal.

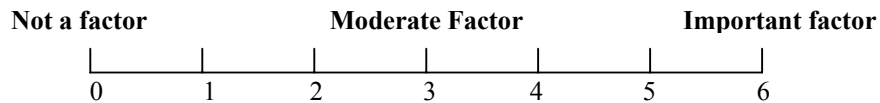
1.1 Physical Competency

The ability for sustained, and skilled performance of sensory-motor tasks involving physical effort. For example, this would include strength, visual or auditory acuity, endurance, vigilance, manual dexterity, etc.

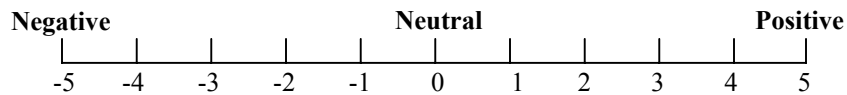
A. Primary Factors: These are factors of physical competency that may play a direct role in the outcome of the Command Challenge.

A1. Sensing (e.g., Observing, hearing, etc)

To what degree was *sensing* a factor in the behaviour of the focal person in the Command Challenge?



To what extent was *sensing* a positive or negative factor?

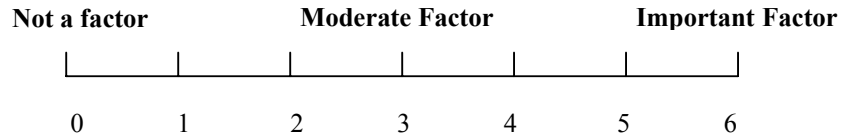


Explain: _____

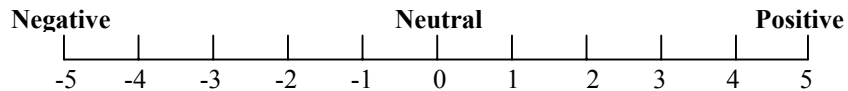
Physical Competency

A2. Acting (e.g., Running, manual labour, dexterity, firing weapon, driving, etc)

To what degree was *acting* a factor in the behaviour of the focal person in the Command Challenge?



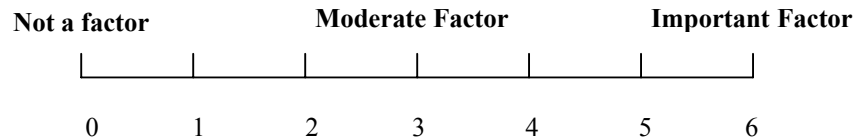
To what extent was *acting* a positive or negative factor?



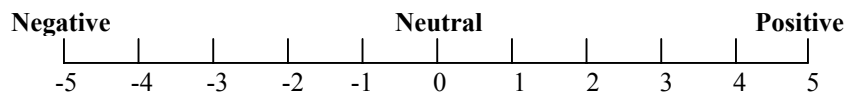
Explain: _____

A3. Endurance (e.g., General fitness, fatigue, injuries, sickness, etc)

To what degree was *endurance* a factor in the behaviour of the focal person in the Command Challenge?



To what extent was *endurance* a positive or negative factor?

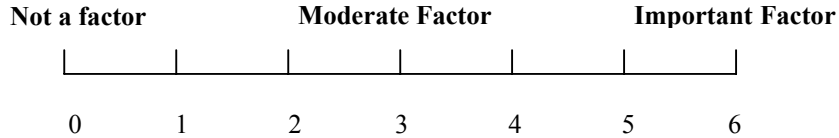


Explain: _____

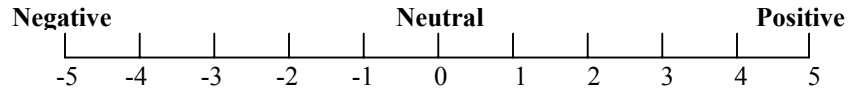
Physical Competency

A4. Experience (e.g., Number of tours, range of jobs, years of service, etc)

To what degree was *experience* a factor in the behaviour of the focal person in the Command Challenge?



To what extent was *experience* a positive or negative factor?

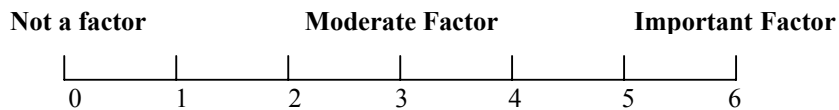


Explain: _____

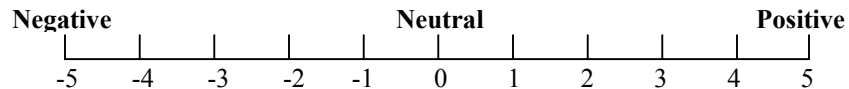
B. Support Factors: These are equipments and processes that may support the primary factors.

B1. Sensing Equipment (e.g., Radar, night vision goggles, unmanned aircraft vehicle, etc)

To what degree was *sensing equipment* (which is intended to support the behaviours of the focal person), a factor in the Command Challenge?



To what extent was this *sensing equipment* a positive or negative factor?

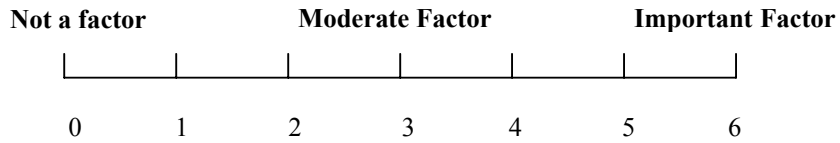


Explain: _____

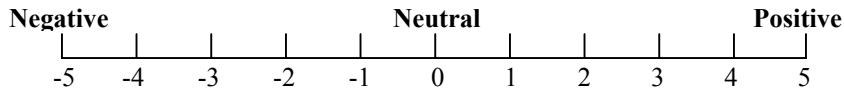
Physical Competency

B2. Acting Equipment (e.g., Weapons, vehicles, etc)

To what degree was *acting equipment* (which is intended to support the behaviours of the focal person), a factor in the Command Challenge?



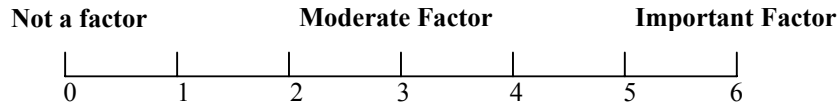
To what extent was this *acting equipment* a positive or negative factor?



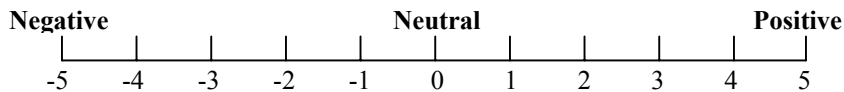
Explain: _____

B3. Supplies & Support (e.g., Food, ammunition, fuel, maintenance, medical care, etc)

To what degree were *supplies and support* (which are intended to support the behaviours of the focal person), a factor in the Command Challenge?



To what extent were these *supplies and support* a positive or negative factor?

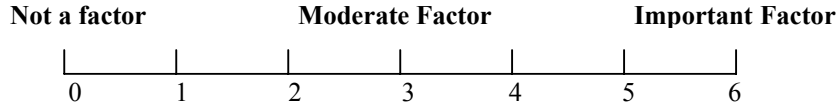


Explain: _____

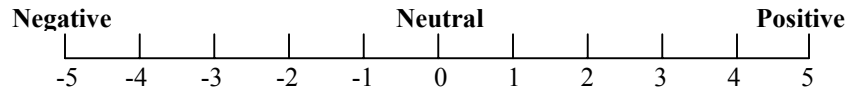
Physical Competency

B4. Training & Education (e.g., Survival training, weapon training, body limitations, etc)

To what degree were *training and education* (which are intended to support the behaviours of the focal person), a factor in the Command Challenge?



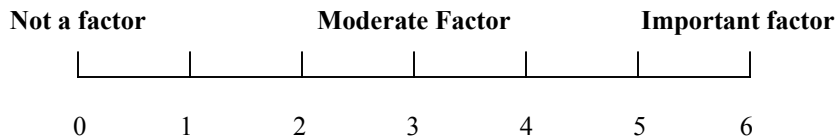
To what extent was this training and education a positive or negative factor?



Explain: _____

C. Contribution of Physical Competency: This final judgment represents a summary evaluation of the overall importance of *physical competency* in the Command Challenge.

Assess the overall degree to which *physical competency* was a factor in this Command Challenge.



Explain: _____

Intellectual Competency

1.2 Intellectual Competency

The ability for skilled performance of mental or intellectual tasks such as reasoning, problem solving, creativity, decision making, visualizing, planning, judgement and the ability to constantly learn.

A. Primary Factors: These are factors of intellectual competency that may play a direct role in the outcome of the Command Challenge.

A1. Situational Awareness (e.g., Comprehension, relevance of information, briefing, monitoring, etc)

To what degree was *situational awareness* a factor in the behaviour of the focal person in the Command Challenge?

Not a factor Moderate Factor Important Factor

0 1 2 3 4 5 6

To what extent was *situational awareness* a positive or negative factor?

Negative Neutral Positive

-5 -4 -3 -2 -1 0 1 2 3 4 5

Explain: _____

A2. Problem Solving (e.g., Decision making, time pressure, judgement, etc)

To what degree was *problem-solving* a factor in the behaviour of the focal person in the Command Challenge?

Not a factor Moderate Factor Important Factor

0 1 2 3 4 5 6

To what extent was *problem-solving* a positive or negative factor?

Negative Neutral Positive

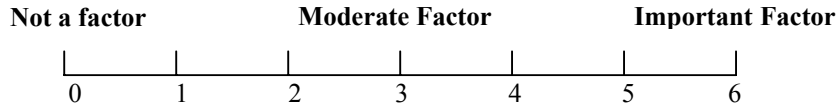
-5 -4 -3 -2 -1 0 1 2 3 4 5

Explain: _____

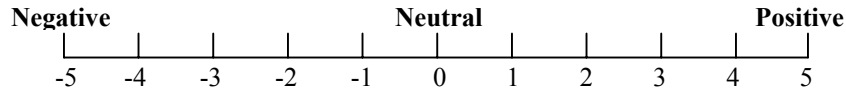
Intellectual Competency

A3. Creativity (e.g., Novel solutions, flexibility, ingenuity, adaptability, innovation, etc)

To what degree was *creativity* a factor in the behaviour of the focal person in the Command Challenge?



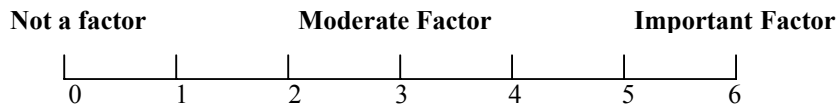
To what extent was *creativity* a positive or negative factor?



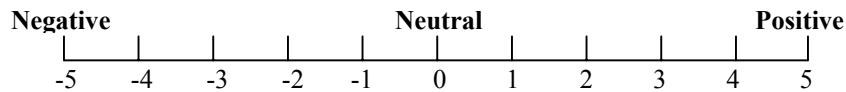
Explain: _____

A4. Endurance (e.g., Sleep loss, work/rest cycles, stress, fatigue, etc)

To what degree was *endurance* a factor in the behaviour of the focal person in the Command Challenge?



To what extent was *endurance* a positive or negative factor?

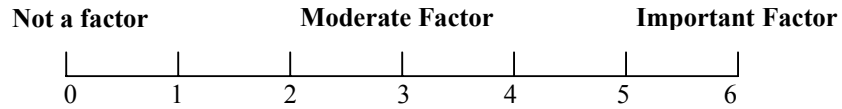


Explain: _____

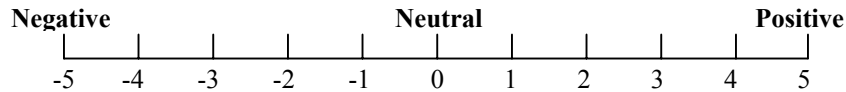
Intellectual Competency

A5. Experience (e.g., Number of tours, range of jobs, years of service, etc)

To what degree was *experience* a factor in the behaviour of the focal person in the Command Challenge?



To what extent was *experience* a positive or negative factor?

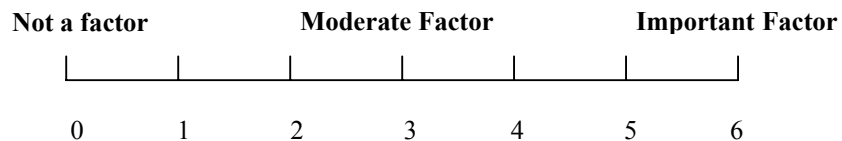


Explain: _____

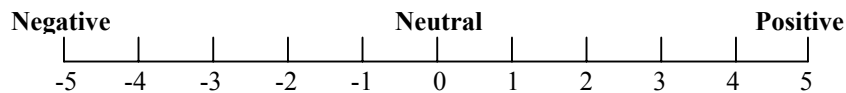
B. Support Factors: Systems and policies that may support primary factors.

B1. Information Systems (e.g., Radios, computers, maps, global positioning system, etc)

To what degree were *information systems* (which are intended to support the behaviours of the focal person), a factor in the Command Challenge?



To what extent were these *information systems* a positive or negative factor?

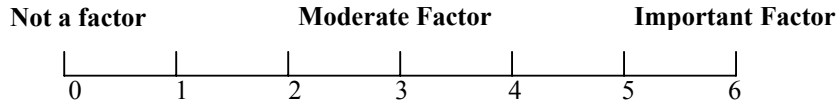


Explain: _____

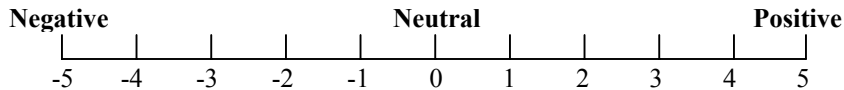
Intellectual Competency

B2. Decision Support (e.g., Staff systems, information management systems, etc)

To what degree was *decision support* (which is intended to support the behaviours of the focal person), a factor in the Command Challenge?



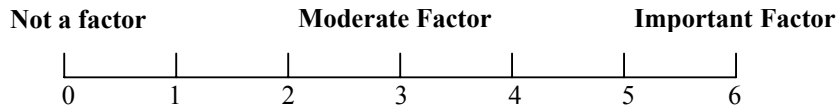
To what extent was this *decision support* a positive or negative factor?



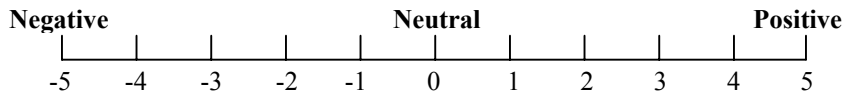
Explain: _____

B3. Procedure & Policies (e.g., Standard operating procedures, rules of engagement, planning processes, approval process, etc)

To what degree were *procedures and policies* (which are intended to support the behaviours of the focal person), a factor in the Command Challenge?



To what extent were these *procedures and policies* a positive or negative factor?

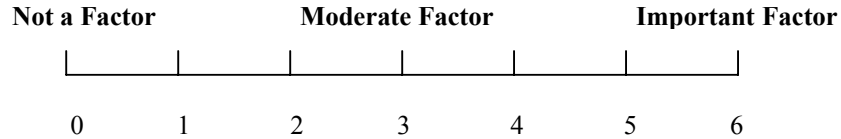


Explain: _____

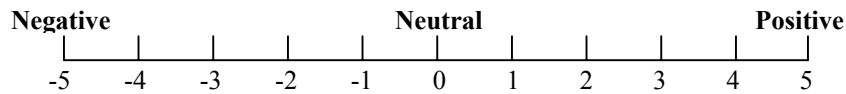
Intellectual Competency

B4. Training & Education (e.g., Professional development, courses, exercises, etc)

To what degree were *training and education* (which are intended to support the behaviours of the focal person), a factor in the Command Challenge?



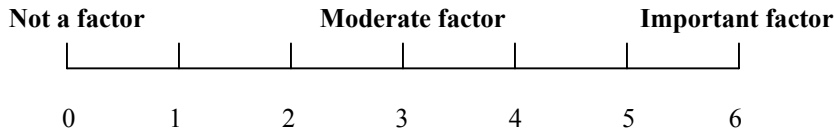
To what extent was this *training and education* a positive or negative factor?



Explain: _____

C. Contribution of Intellectual Competency: This final judgment represents a summary evaluation of the overall importance of *intellectual competency* in the Command Challenge.

Assess the overall degree to which *intellectual competency* was a factor in this Command Challenge.



Explain: _____

Emotional Competency

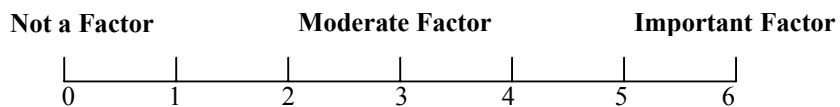
1.3 Emotional Competency

The ability to handle and cope with situations that are personally stressful or that are stressful for others. Emotional competency includes, for example, the ability to cope in emotionally-charged situations, to control anger, to maintain a sense of humour, to keep a balanced perspective.

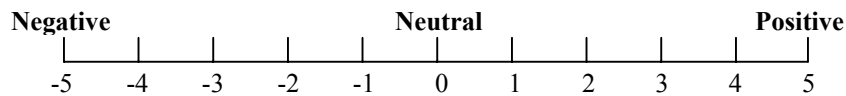
A. Primary Factors: These are factors of emotional competency that may play a direct role in the outcome of the Command Challenge.

A1. Short-Term Resilience (e.g., Combat operation, living conditions, personal problems, etc)

To what degree was *short-term resilience* a factor in the behaviour of the focal person in the Command Challenge?



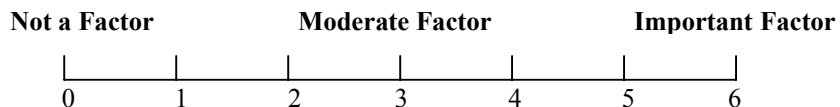
To what extent was *short-term resilience* a positive or negative factor?



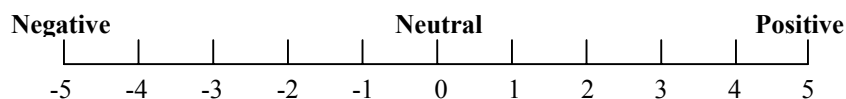
Explain: _____

A2. Long-Term Resilience (e.g., Extended stressors, fatigue, operational tempo, etc)

To what degree was *long-term resilience* a factor in the behaviour of the focal person in the Command Challenge?



To what extent was *long-term resilience* a positive or negative factor?

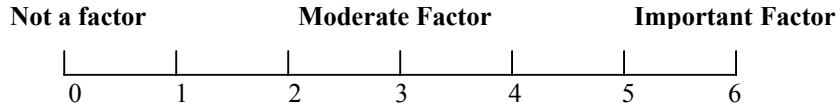


Explain: _____

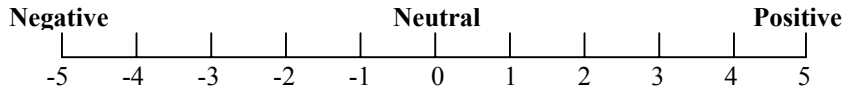
Emotional Competency

A3. Coping Strategies (e.g., Humour, optimism, drugs, etc)

To what degree were *coping strategies* a factor in the behaviour of the focal person in the Command Challenge?



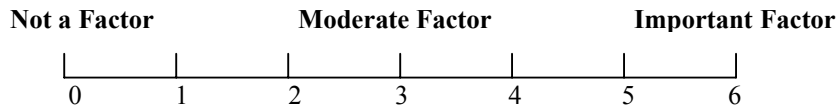
To what extent were the *coping strategies* a positive or negative factor?



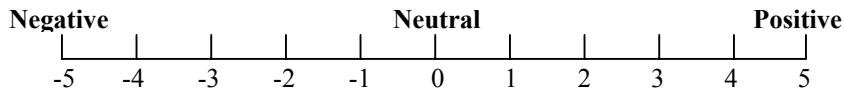
Explain: _____

A4. Personal Maturity (e.g., Balanced perspective, judgment, tolerance, etc)

To what degree was *personal maturity* a factor in the behaviour of the focal person in the Command Challenge?



To what extent was *personal maturity* a positive or negative factor?



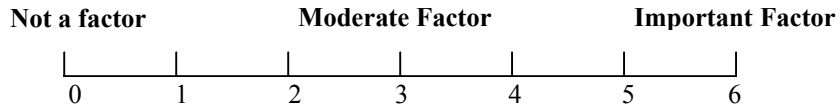
Explain: _____

Emotional Competency

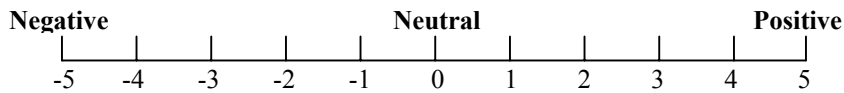
B. Support Factors: Resources and policies that support primary factors.

B1. Formal Support (e.g., Chaplain, medical professional, psychologists, etc)

To what degree was *formal support* (which is intended to support the behaviours of the focal person), a factor in the Command Challenge?



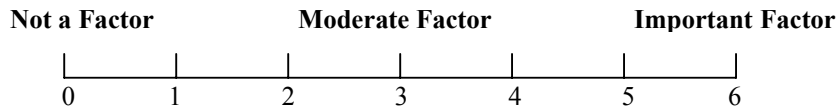
To what extent was this *formal support* a positive or negative factor?



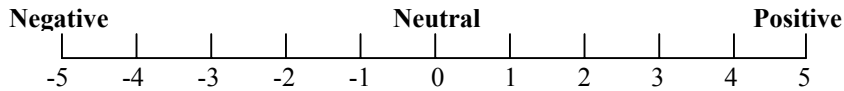
Explain: _____

B2. Informal Support (e.g., Social network, cohesion, unit morale, etc)

To what degree was *informal support* (which is intended to support the behaviours of the focal person), a factor in the Command Challenge?



To what extent was this *informal support* a positive or negative factor?

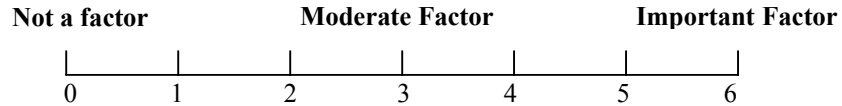


Explain: _____

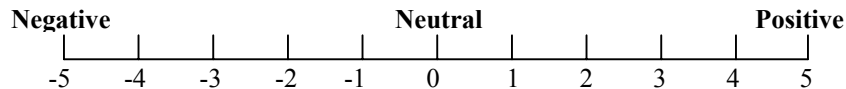
Emotional Competency

B3. Policies (e.g., Leave, phone calls home, alcohol, etc)

To what degree were *policies* (which are intended to support the behaviours of the focal person), a factor in the Command Challenge?



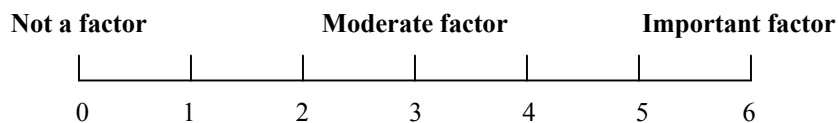
To what extent were these *policies* a positive or negative factor?



Explain: _____

C. Contribution of Emotional Competency: This final judgment represents a summary evaluation of the overall importance of *emotional competency* in the Command Challenge.

Assess the overall degree to which *emotional competency* was a factor in this Command Challenge.



Explain: _____

Interpersonal Competency

1.4 Interpersonal Competency
The ability to interact successfully with other individuals. This includes articulateness, empathy, perceptiveness and social sensitivity.

A. Primary Factors: These are factors of interpersonal competency that may play a direct role in the outcome of the Command Challenge.

A1. Language skills (e.g., Speaking skills, writing skills, etc)

To what degree were *language skills* a factor in the behaviour of the focal person in the Command Challenge?

Not a Factor **Moderate Factor** **Important Factor**

|-----|-----|-----|-----|-----|-----|

0 1 2 3 4 5 6

To what extent were *language skills* a positive or negative factor?

Negative **Neutral** **Positive**

|-----|-----|-----|-----|-----|-----|

-5 -4 -3 -2 -1 0 1 2 3 4 5

Explain: _____

A2. Social Maturity (e.g., Empathy, social awareness, sensitivity, tolerance, etc)

To what degree was *social maturity* a factor in the behaviour of the focal person in the Command Challenge?

Not a Factor **Moderate Factor** **Important Factor**

|-----|-----|-----|-----|-----|-----|

0 1 2 3 4 5 6

To what extent was the *social maturity* a positive or negative factor?

Negative **Neutral** **Positive**

|-----|-----|-----|-----|-----|-----|

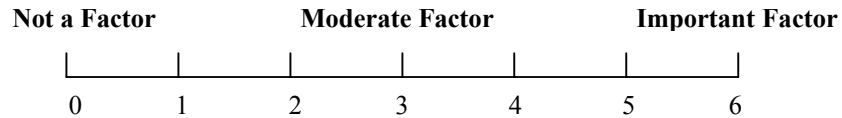
-5 -4 -3 -2 -1 0 1 2 3 4 5

Explain: _____

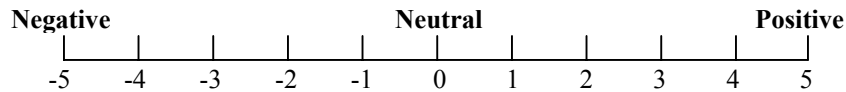
Interpersonal Competency

A3. Approachability (e.g., Personality style, temperament, availability, etc)

To what degree was *accessibility* a factor in the behaviour of the focal person in the Command Challenge?



To what extent was *accessibility* a positive or negative factor?

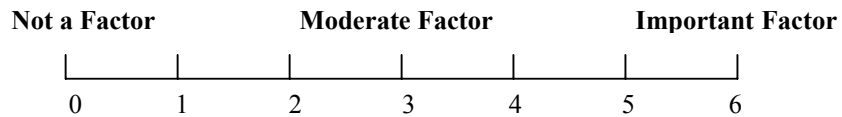


Explain: _____

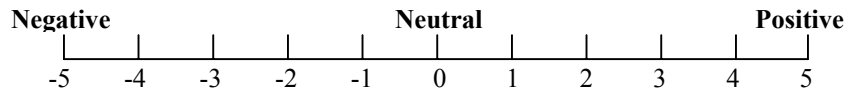
B. Support Factors: Equipment, processes, and training that support primary factors.

B1. Mode of Communication (e.g., Radio, computer, direct contact, etc)

To what degree was the *mode of communication* (which is intended to support the behaviours of the focal person), a factor in the Command Challenge?



To what extent was the *mode of communication* a positive or negative factor?

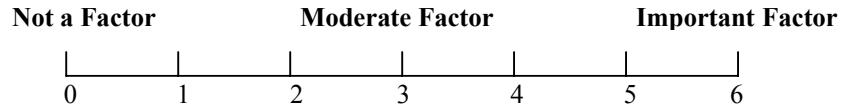


Explain: _____

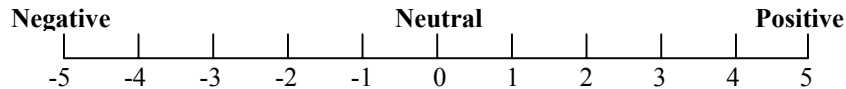
Interpersonal Competency

B2. Policies (e.g., Media relations, visiting troops, etc)

To what degree were *policies* (which are intended to support the behaviours of the focal person), a factor in the Command Challenge?



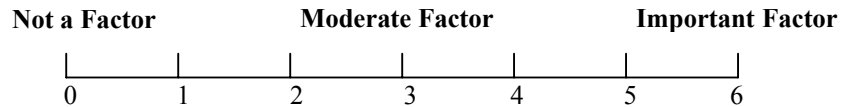
To what extent were these *policies* a positive or negative factor?



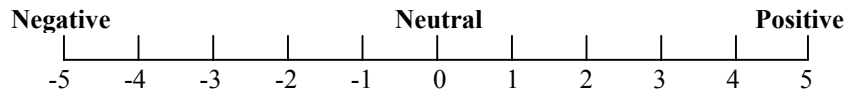
Explain: _____

B3. Training & Education (e.g., Public speaking, writing, media awareness, etc)

To what degree were *training and education* (which are intended to support the behaviours of the focal person), a factor in the Command Challenge?



To what extent were these *training and education* a positive or negative factor?

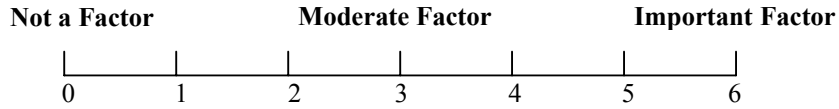


Explain: _____

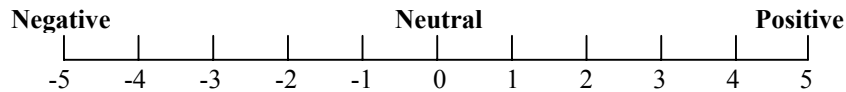
Interpersonal Competency

B4. Development Opportunities (e.g., Exercises, appointments, liaison experience, PR experience)

To what degree were *development opportunities* (which are intended to support the behaviours of the focal person), factor in the Command Challenge?



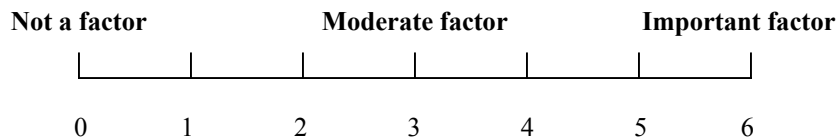
To what extent were these *development opportunities* a positive or negative factor?



Explain: _____

C. Contribution of Interpersonal Competency: This final judgment represents a summary evaluation of the overall importance of *interpersonal competency* in the Command Challenge.

Assess the overall degree to which *interpersonal competency* was a factor in this Command Challenge.



Explain: _____

Legal Authority

2. Authority

The degree to which a focal person is empowered to act, the scope of this power and the resources available for enacting his/her will.

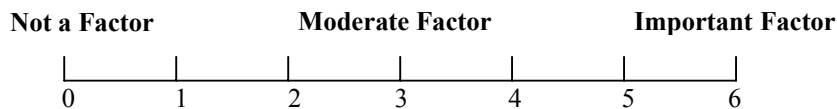
2.1 Legal Authority

The degree of power formally given to an individual by the military organization. Legal authority includes power over both resources and personnel, as well as the power to act.

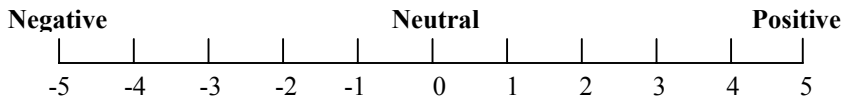
A. Primary Factors: These are factors in legal authority that may play a direct role in the outcome of the Command Challenge.

A1. Mission/Task Mandate (e.g., Availability, situation oriented, clarity, realism, etc)

To what degree was the *mission mandate* a factor in the behaviour of the focal person in the Command Challenge?



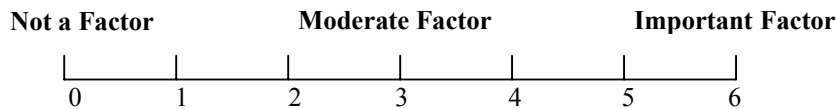
To what extent was the *mission mandate* a positive or negative factor?



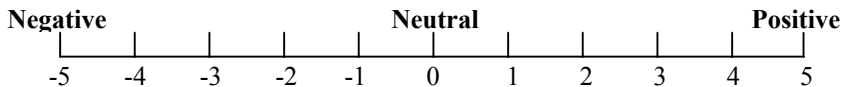
Explain: _____

A2. Resources (e.g., Appropriateness of equipment, personnel, supplies, etc)

To what degree were *resources* a factor in the behaviour of the focal person in the Command Challenge?



To what extent were *resources* a positive or negative factor?

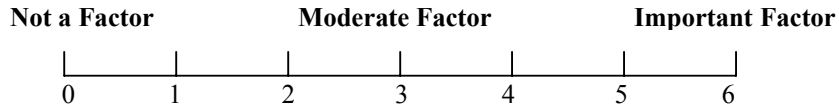


Explain: _____

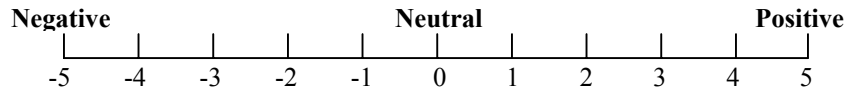
Legal Authority

A3. Positional Power (e.g., Rank level, adequacy, position appointment, etc)

To what degree was *positional power* a factor in the behaviour of the focal person in the Command Challenge?



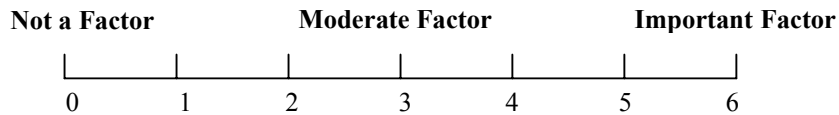
To what extent was the *positional power* a positive or negative factor?



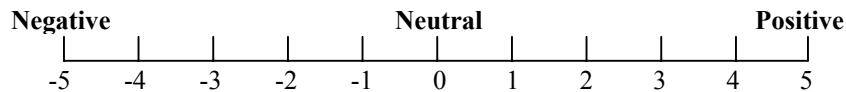
Explain: _____

A4. Application of Legal Authority (e.g., Justifiable, consistent, appropriate, etc)

To what degree was the *application of legal authority* a factor in the behaviour of the focal person in the Command Challenge?



To what extent was the *application of legal authority* a positive or negative factor?



Explain: _____

Legal Authority

B. Support Factors: Control structures and policies that may support the primary factors.

B1. Rules & Regulations (e.g., Clarity, adequacy etc)

To what degree were *rules and regulations* (which are intended to support the behaviours of the focal person), a factor in the Command Challenge?

Not a factor **Moderate Factor** **Important Factor**

|-----|-----|-----|-----|-----|-----|

0 1 2 3 4 5 6

To what extent were these *rules and regulations* a positive or negative factor?

Negative **Neutral** **Positive**

|-----|-----|-----|-----|-----|-----|

-5 -4 -3 -2 -1 0 1 2 3 4 5

Explain: _____

B2. Chain of Command (e.g., Clarity, complex multi-national, decision approval, etc)

To what degree was the *chain of command* (which is intended to support the behaviours of the focal person), a factor in the Command Challenge?

Not a Factor **Moderate Factor** **Important Factor**

|-----|-----|-----|-----|-----|-----|

0 1 2 3 4 5 6

To what extent was the *chain of command* a positive or negative factor?

Negative **Neutral** **Positive**

|-----|-----|-----|-----|-----|-----|

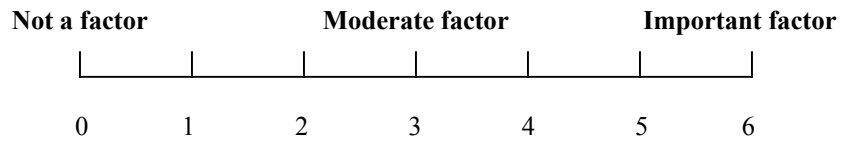
-5 -4 -3 -2 -1 0 1 2 3 4 5

Explain: _____

Legal Authority

C. Contribution of Legal Authority: This final judgment represents a summary evaluation of the overall importance of *legal authority* in the Command Challenge.

Assess the overall degree to which *legal authority* was a factor in this Command Challenge.



Explain: _____

Personal Authority

2.2 Personal Authority

The degree of empowerment provided informally and tacitly to an individual by superiors, peers and subordinates. It is that authority earned, for example, through reputation, experience, strength of character and personal example.

A. Primary Factors: These are factors of personal authority that may play a direct role in the outcome of the Command Challenge.

A1. Influence Up (e.g., Credibility with: peers, superiors in chain of command, headquarters, etc)

To what degree was *influence up* a factor in the behaviour of the focal person in the Command Challenge?

Not a Factor **Moderate Factor** **Important Factor**

|-----|-----|-----|-----|-----|-----|

0 1 2 3 4 5 6

To what extent was *influence up* a positive or negative factor?

Negative **Neutral** **Positive**

|-----|-----|-----|-----|-----|-----|

-5 -4 -3 -2 -1 0 1 2 3 4 5

Explain: _____

A2. Influence Down (e.g., Credibility with subordinates, leadership style, etc)

To what degree was *influence down* a factor in the behaviour of the focal person in the Command Challenge?

Not a Factor **Moderate Factor** **Important Factor**

|-----|-----|-----|-----|-----|-----|

0 1 2 3 4 5 6

To what extent was *influence down* a positive or negative factor?

Negative **Neutral** **Positive**

|-----|-----|-----|-----|-----|-----|

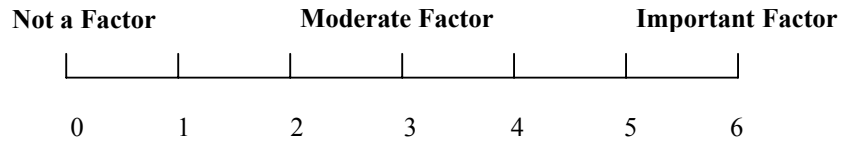
-5 -4 -3 -2 -1 0 1 2 3 4 5

Explain: _____

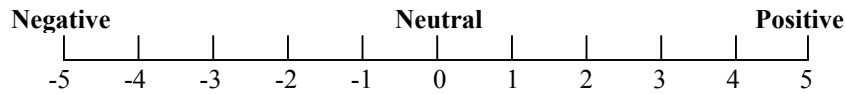
Personal Authority

A3. External Influence (e.g., Credibility with civilians, non-government organisation, belligerents, etc)

To what degree was *external influence* a factor in the behaviour of the focal person in the Command Challenge?



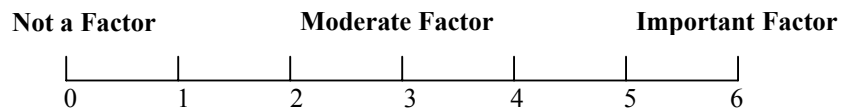
To what extent was *external influence* a positive or negative factor?



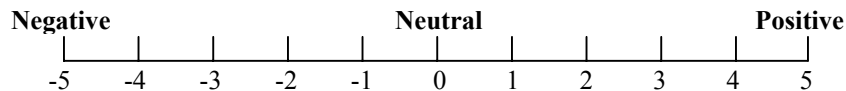
Explain: _____

A4. Application of Personal Authority (e.g., Justifiable, appropriate, consistent, etc)

To what degree was the *application of personal authority* a factor in the behaviour of the focal person in the Command Challenge?



To what extent was the *application of personal authority* a positive or negative factor?



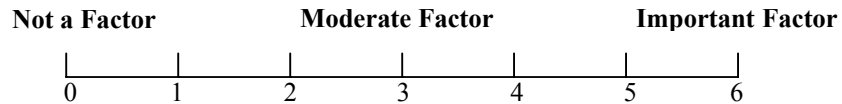
Explain: _____

Personal Authority

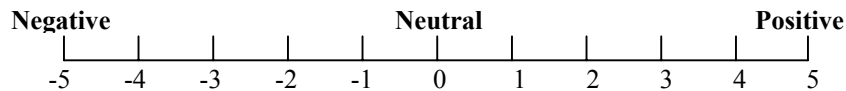
B. Support Factors: Attitudes and processes that may support primary factors.

B1. Traditions & Values (e.g., Military culture, regimental system, service traditions, etc)

To what degree were *traditions and values* (which are intended to support the behaviours of the focal person), a factor in the Command Challenge?



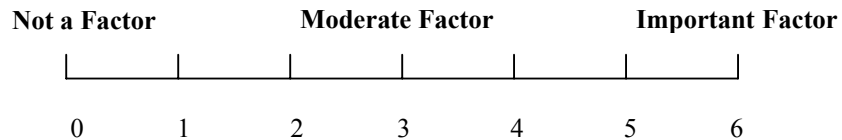
To what extent were these *traditions and values* a positive or negative factor?



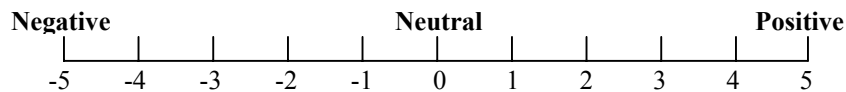
Explain: _____

B2. Loyalties (e.g., To unit, to mission, to service, etc)

To what degree were *loyalties* (which are intended to support the behaviours of the focal person), a factor in the Command Challenge?



To what extent were these *loyalties* a positive or negative factor?

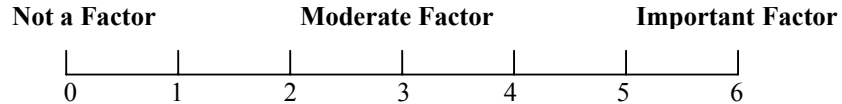


Explain: _____

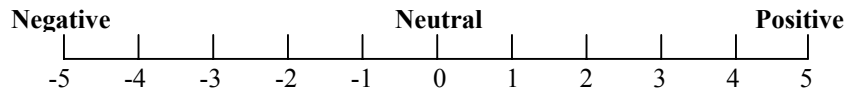
Personal Authority

B3. Opportunities (e.g., For setting examples, for demonstrating skills, etc)

To what degree were the *opportunities* (which are intended to support the behaviours of the focal person), a factor in the Command Challenge?



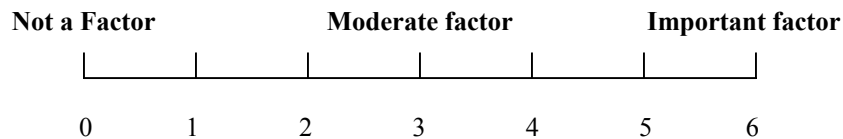
To what extent were these *opportunities* a positive or negative factor?



Explain: _____

C. Contribution of Personal Authority: This final judgment represents a summary evaluation of the overall importance of *personal authority* in the Command Challenge.

Assess the overall degree to which *personal authority* was a factor in this Command Challenge.



Explain: _____

Extrinsic Responsibility

3. Responsibility

Addresses the degree to which an individual accepts the legal and moral liability commensurate with command. There are two components: extrinsic and intrinsic responsibility.

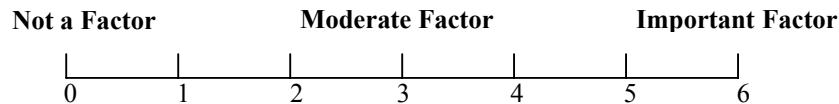
3.1 Extrinsic Responsibility

The willingness to be held accountable to another person or organization for the actions taken. It usually entails meeting formal or legal expectations for behaviour or performance, although it can also entail informal expectations on the part of peers and subordinates.

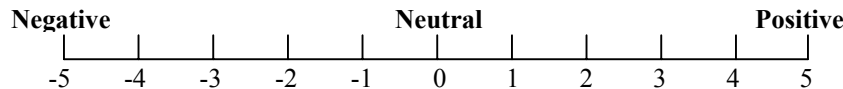
A. Primary Factors: These are factors of extrinsic responsibility that may play a direct role in the outcome of the Command Challenge.

A1. Understanding of Accountability (e.g., Clarity, objectivity, etc)

To what degree was the *understanding of accountability* a factor in the behaviour of the focal person in the Command Challenge?



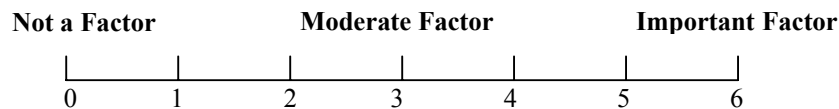
To what extent was the *understanding of accountability* a positive or negative factor?



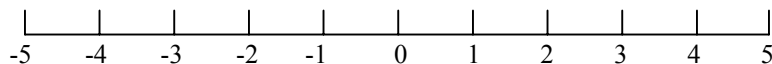
Explain: _____

A2. Willingness/Reticence to be Accountable (e.g., Acceptance, blame, etc)

To what degree was *willingness/reticence to be accountable* a factor in the behaviour of the focal person in the Command Challenge?



To what extent was *willingness/reticence to be accountable* a positive or negative factor?

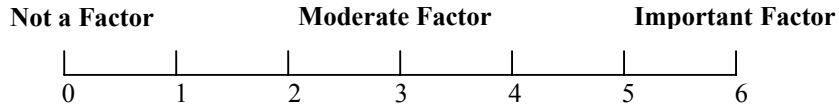


Explain: _____

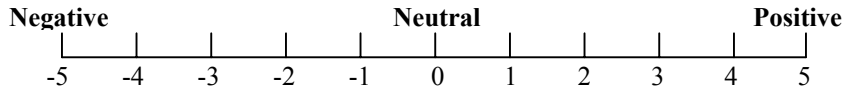
Extrinsic Responsibility

A3. Confidence (e.g., In the outcome, in the system, in the chain of command, etc)

To what degree was *confidence* a factor in the behaviour of the focal person in the Command Challenge?



To what extent was *confidence* a positive or negative factor?

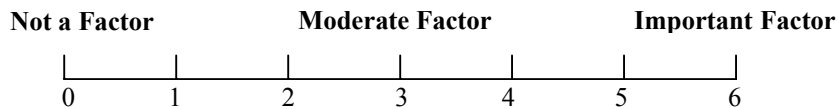


Explain: _____

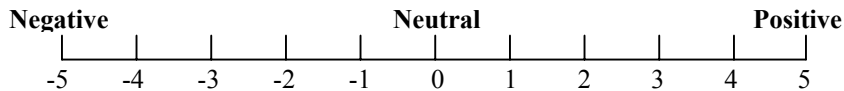
B. Support Factors: Control structures and processes that may support primary factors.

B1. Accountabilities (e.g., Clarity of law and specifications, articulation, conflict, etc)

To what degree were the *accountabilities* (which are intended to support the behaviours of the focal person), a factor in the Command Challenge?



To what extent were these *accountabilities* a positive or negative factor?

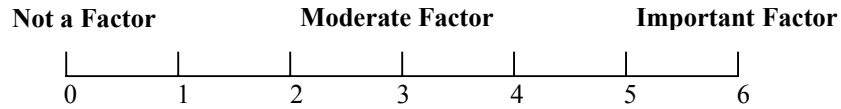


Explain: _____

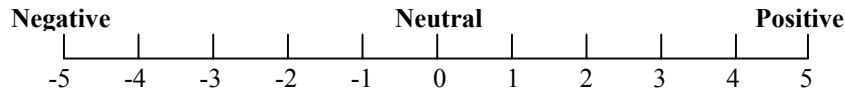
Extrinsic Responsibility

B2. Enforcement of Accountability (e.g., Size or type of reinforcement/punishment, organizational support, etc)

To what degree was *enforcement of accountability* (which is intended to support the behaviours of the focal person), a factor in the Command Challenge?



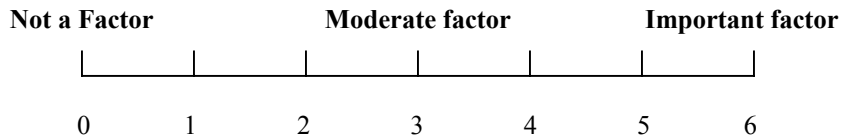
To what extent was the *enforcement of accountability* a positive or negative factor?



Explain: _____

C. Contribution of Extrinsic Responsibility: This final judgment represents a summary evaluation of the overall importance of *extrinsic responsibility* in the Command Challenge.

Assess the overall degree to which *extrinsic responsibility* was a factor in this Command Challenge.



Explain: _____

Intrinsic Responsibility

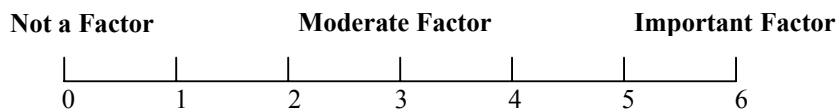
3.2 Intrinsic Responsibility

The degree of self-generated commitment (moral or otherwise) that one feels towards an individual or organization. Intrinsic responsibility is associated with the concepts of dedication, honour, fame, pride, and loyalty.

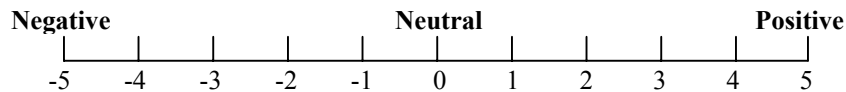
A. Primary Factors: These are factors in intrinsic responsibility that may play a direct role in the behaviour of the focal person.

A1. Motivation (e.g., Problem ownership, pride, dedication, personal involvement at work etc)

To what degree was *motivation* a factor in the behaviour of the focal person in the Command Challenge?



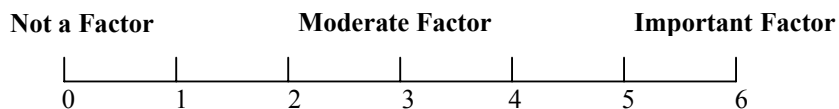
To what extent was the *motivation* of the focal person a positive or negative factor?



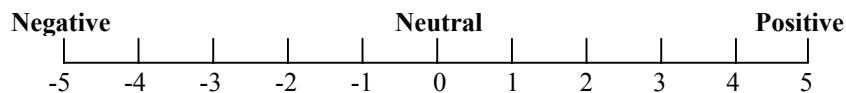
Explain: _____

A2. Commitment (e.g., Loyalty: to military, to mission, to personnel, etc)

To what degree was *commitment* a factor in the behaviour of the focal person in the Command Challenge?



To what extent was the *commitment* of the focal person a positive or negative factor?

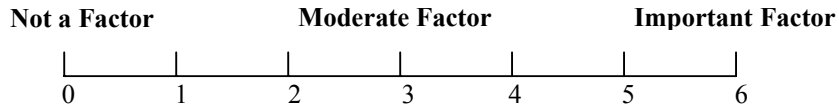


Explain: _____

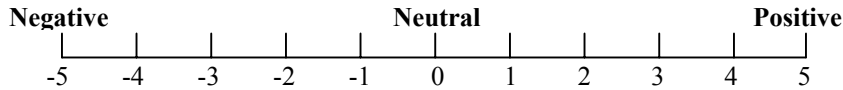
Intrinsic Responsibility

A3. Personal Ethics (e.g., Moral obligation, honesty, integrity, etc)

To what degree were *personal ethics* a factor in the behaviour of the focal person in the Command Challenge?



To what extent were the *personal ethics* of the focal person a positive or factor?

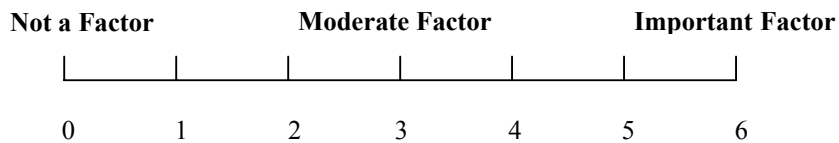


Explain: _____

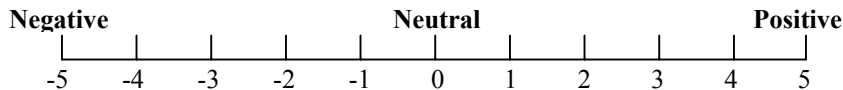
B. Support Factors: Control structure and processes that may support primary factors.

B1. Formal Recognition Methods (e.g., PER, promotion, medals, certificates, awards, etc)

To what degree were the *formal recognition methods* (which are intended to support the behaviour of the focal person), a factor in the Command Challenge?



To what extent were these *formal recognition methods* a positive or negative factor?

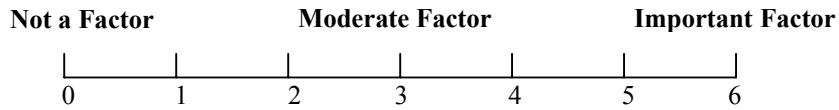


Explain: _____

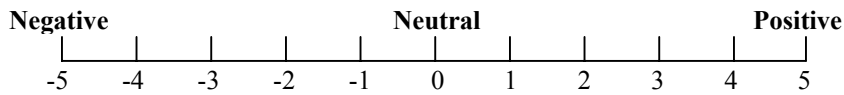
Intrinsic Responsibility

B2. Informal Recognition Methods (e.g., Leader feedback, group acknowledgement, team encouragement, etc)

To what degree was *informal recognition methods* (which is intended to support the behaviour of the focal person), a factor in the Command Challenge?



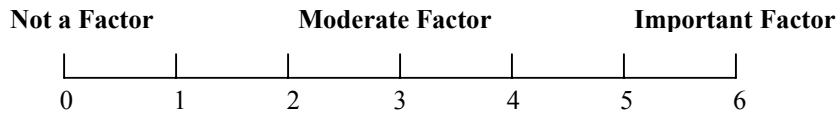
To what extent was *informal recognition methods* a positive or negative factor?



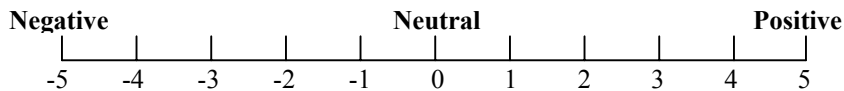
Explain: _____

B3. Opportunities for Growth (e.g., New skills, academic degrees, training, experience, etc)

To what degree were the *opportunities for growth* (which are intended to support the behaviour of the focal person), a factor in the Command Challenge?



To what extent were these *opportunities for growth* a positive or negative factor?



Explain: _____

Intrinsic Responsibility

C. Contribution of Intrinsic Responsibility: This final judgment represents a summary evaluation of the overall importance of *intrinsic responsibility* in the Command Challenge.

Assess the overall degree to which *intrinsic responsibility* was a factor in this Command Challenge.

Not a Factor		Moderate factor		Important factor		
0	1	2	3	4	5	6

Explain: _____

4. Balanced Command Envelope (BCE)

4.1 Command Dimensions

Competency: the combination of skills and abilities available to the focal person to deal with the CC.

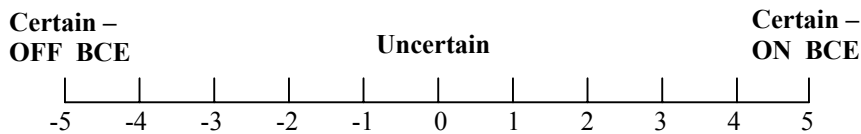
Authority: the degree to which the focal person is empowered to act, the scope of this power and the resources available for enacting will in this CC.

Responsibility: the degree to which the focal person accepts legal and moral obligations in this CC.

Balanced Command

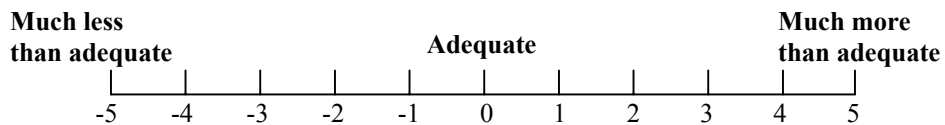
Assess the following statement:

How certain are you that, from an organizational perspective, the focal person in this CC was on the Balanced Command Envelope?

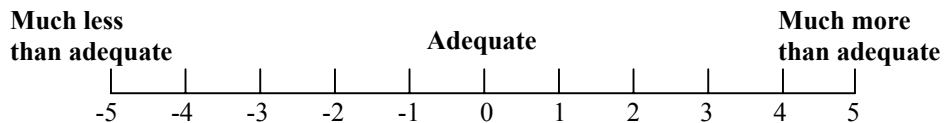


Adequacy in Dimensions

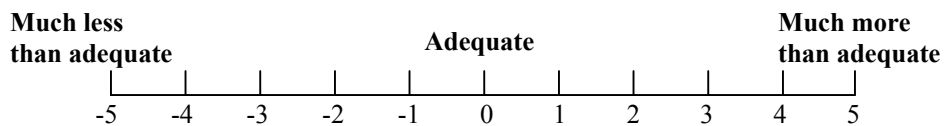
Assess, from an organizational perspective, the adequacy of the focal person's overall Competency:



Assess, from an organizational perspective, the adequacy of the focal person's overall Authority:



Assess, from an organizational perspective, the adequacy of the focal person's overall Responsibility:



Explain: _____

Explicit Intent

5. Command and Control

The establishment of common intent to achieve coordinated action

5.1 Explicit intent
The publicly communicated aim or purpose

A. Primary Factors: These are factors in explicit intent that may play a direct role in the behaviour of the focal person.

A1. Aim or purpose (e.g., Clarity, feasibility, completeness, complexity, etc.)

To what degree was the focal person's publicly-expressed *aim or purpose* a factor in the Command Challenge?

Not a Factor Moderate Factor Important Factor

0 1 2 3 4 5 6

To what extent was the *aim or purpose* a positive or negative factor?

Negative Neutral Positive

-5 -4 -3 -2 -1 0 1 2 3 4 5

Explain: _____

A2. Use of Language (e.g., Translations, articulateness, etc.)

To what degree was the focal person's *use of language* a factor in the Command Challenge?

Not a Factor Moderate Factor Important Factor

0 1 2 3 4 5 6

To what extent was the *use of language* a positive or negative factor?

Negative Neutral Positive

-5 -4 -3 -2 -1 0 1 2 3 4 5

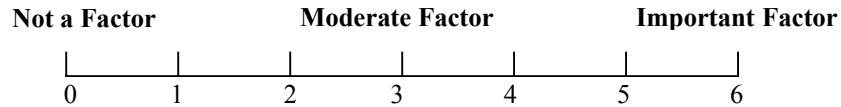
Explain: _____

Explicit Intent

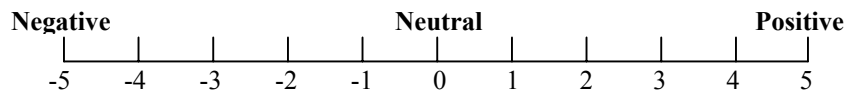
B. Support Factors: Control structure and processes that may support primary factors.

B1. Means of Communication (e.g., Richness, written, spoken, time delays, etc.)

To what degree was the focal person's *means of communication* a factor in the Command Challenge?



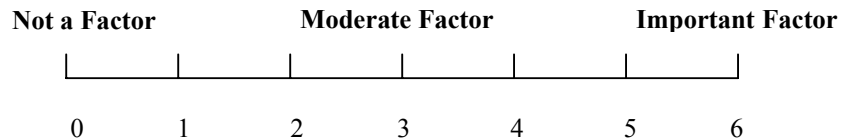
To what extent was the *means of communication* a positive or negative factor?



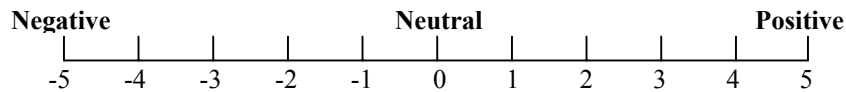
Explain: _____

B2. Time Available (e.g., For elaboration, questions, backbriefs, etc.)

To what degree was the *time available* to the focal person a factor in the Command Challenge?



To what extent was the *time available* a positive or negative factor?



Explain: _____

Implicit Intent

5.2 Implicit intent

The connotations of the aim or purpose.

A. Primary Factors: These are factors in implicit intent that may play a direct role in the behaviour of the focal person.

A1. Personal differences

To what degree were differences at the personal level between the focal person and those s/he interacted with a factor in the Command Challenge?

Not a Factor Moderate Factor Important Factor

0 1 2 3 4 5 6

To what extent were the following personal differences a positive or negative factor?

Gender:

Negative Neutral Positive

-5 -4 -3 -2 -1 0 1 2 3 4 5

Rank:

Negative Neutral Positive

-5 -4 -3 -2 -1 0 1 2 3 4 5

Training:

Negative Neutral Positive

-5 -4 -3 -2 -1 0 1 2 3 4 5

Experience:

Negative Neutral Positive

-5 -4 -3 -2 -1 0 1 2 3 4 5

Education:

Negative Neutral Positive

-5 -4 -3 -2 -1 0 1 2 3 4 5

Personality:

Negative Neutral Positive

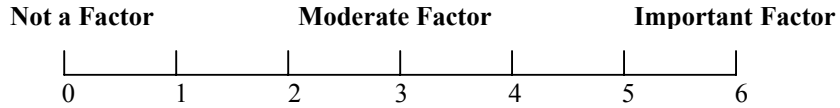
-5 -4 -3 -2 -1 0 1 2 3 4 5

Explain: _____

Implicit Intent

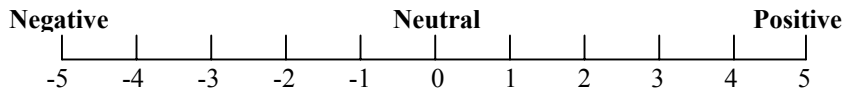
A2. Service differences

To what degree were differences in service between the focal person and those s/he interacted with a factor in the Command Challenge?

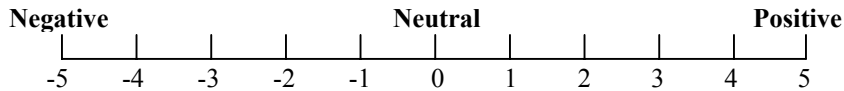


To what extent were the following service differences a positive or negative factor?

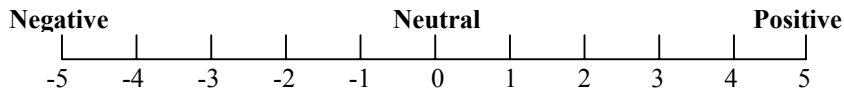
Officer/NCM:



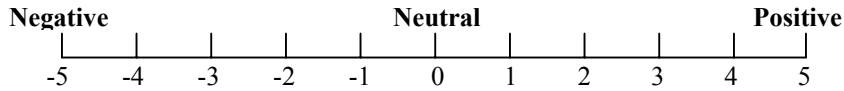
Environment (army, navy, airforce):



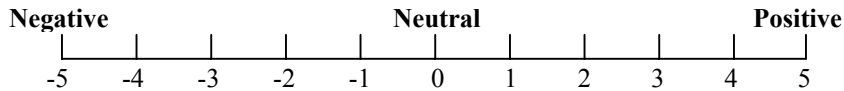
Regular/Reserve:



Operational/Support:



Military/civilian:

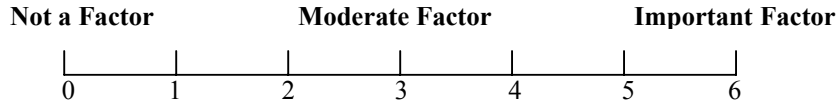


Explain: _____

Implicit Intent

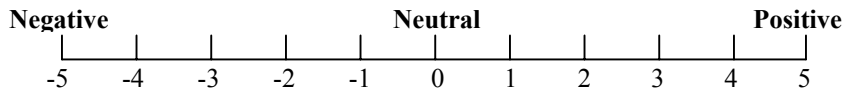
A3. Ethnic differences

To what degree were ethnic differences between the focal person and those s/he interacted with a factor in the Command Challenge?

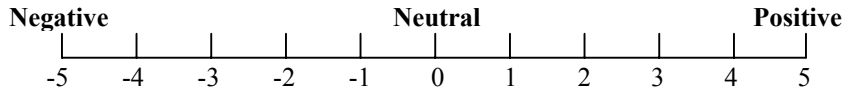


To what extent were the following ethnic differences a positive or negative factor?

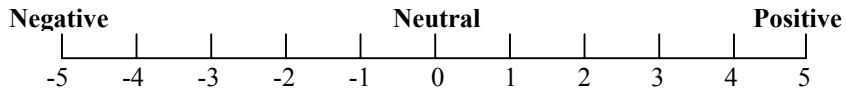
Language:



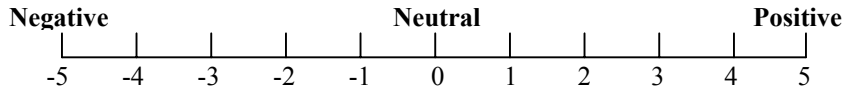
Religion:



Race:



Customs:

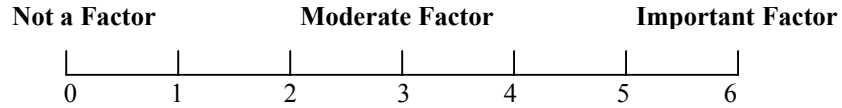


Explain: _____

Implicit Intent

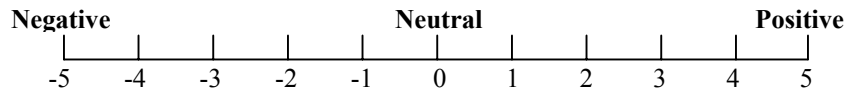
A4. National differences

To what degree were differences in nationality between the focal person and those s/he interacted with a factor in the Command Challenge?

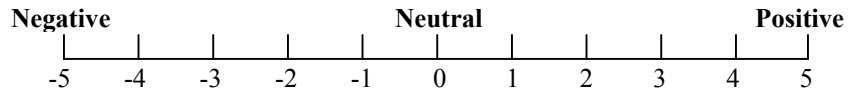


To what extent were the following national differences a positive or negative factor?

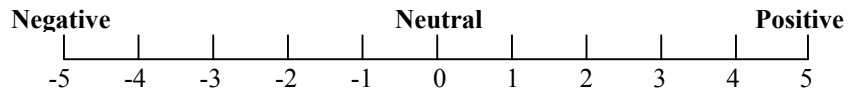
Military policy:



Doctrinal:



Political:



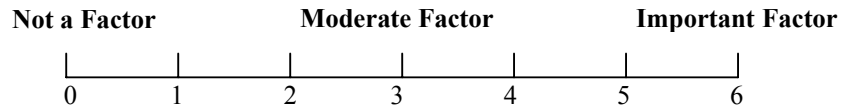
Explain: _____

Implicit Intent

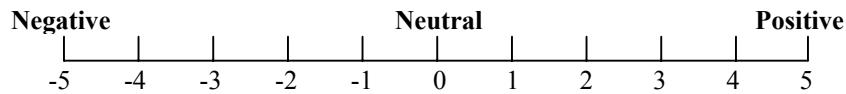
B. Support Factors: Control structure and processes that may support primary factors.

B1. Opportunities (e.g., for socialisation, for shared experiences, shared training)

To what degree were the *opportunities* for sharing implicit intent a factor in the Command Challenge?



To what extent were the *opportunities* a positive or negative factor?



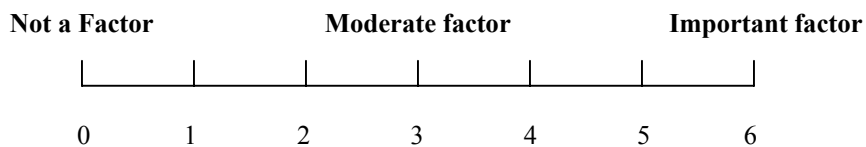
Explain: _____

5.3 Common intent

The sum of shared explicit intent and the operationally-relevant portions of shared implicit intent.

Contribution of Common Intent: This final judgment represents a summary evaluation of the overall importance of *common intent* in the Command Challenge.

Assess the overall degree to which *common intent* was a factor in the Command Challenge.

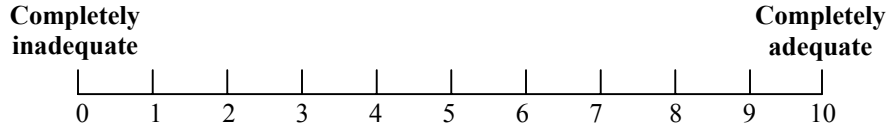


Explain: _____

6. Overall Assessment

Overall Adequacy of CC Description

To what extent did you feel that the CC provided adequate information for analysis using the framework?



Explain: _____

Overall Utility of Framework

In your opinion, how useful was the framework for analysing this Command Challenge?



Are there important aspects of this Command Challenge that are not covered by the framework?

No Yes

If Yes, please list the aspects that were not addressed:

Explain: _____

Final Comments

DOCUMENT CONTROL DATA SHEET

1a. PERFORMING AGENCY
KMG Associates, 83 Gore St., Kingston, ON, K7L 2L4

2. SECURITY CLASSIFICATION

UNCLASSIFIED
-

1b. PUBLISHING AGENCY
DRDC Toronto

3. TITLE

(U) Development Of A Procedure To Assess Command Challenges

4. AUTHORS

Allan English

5. DATE OF PUBLICATION

January 16 , 2003

6. NO. OF PAGES

117

7. DESCRIPTIVE NOTES

8. SPONSORING/MONITORING/CONTRACTING/TASKING AGENCY
Sponsoring Agency:
Monitoring Agency:
Contracting Agency :
Tasking Agency:

9. ORIGINATORS DOCUMENT NO.

Contract Report CR 2003-143

10. CONTRACT GRANT AND/OR
PROJECT NO.

W7711-027795

11. OTHER DOCUMENT NOS.

12. DOCUMENT RELEASABILITY

Unlimited distribution

13. DOCUMENT ANNOUNCEMENT

Unlimited announcement

14. ABSTRACT

(U) This is the final report for work done by KMG Associates (the contractor) on the Development of a Procedure to Assess Command Challenges Research Project. This project involved the development of a guide for writing Command Challenges (CCs); the collection and analysis of a new set of CCs from all three environments (army, navy and air force); the revision of the CC Assessment Tool (CCAT); and the development of a manual describing how to use the CCAT.

The research methodology consisted of the contractor compiling a total of 50 descriptions of events with command challenges (CCs) related to a focal or central person based on the new guide for writing CCs. These CCs were then evaluated by expert reviewers using the revised assessment tool (CCAT) based on the Pigeau and McCann theoretical framework for C2. During this process the evaluators provided input for the CC writing guide, the revised CCAT, and the guide for using the CCAT.

It was concluded that the methodology of collecting and evaluating CCs is a sound approach for assessing the validity of Pigeau and McCann theoretical framework for C2 and that the CC writing guide, the revised CCAT, and the guide for using the CCAT will make future validation of the framework more effective.

(U) Le présent rapport final porte sur les travaux effectués par KMG Associates (l'entrepreneur) quant au projet de recherche sur l'élaboration d'une procédure d'évaluation des défis de commandement. Le projet comprenait l'élaboration d'un guide de rédaction des défis de commandement (DC); la collecte et l'analyse d'un nouvel ensemble de DC pour les trois armées (Armée de terre, Forces maritimes et Force aérienne); l'examen de l'outil d'évaluation des DC (OEDC); l'élaboration d'un guide de l'utilisateur de l'OEDC.

La méthodologie de recherche a consisté en la compilation, par l'entrepreneur, de 50 descriptions d'événements présentant des défis de commandement (DC) liés à une personne centrale en fonction du nouveau guide de rédaction des DC. Ces DC ont ensuite été évalués par des spécialistes en vérification à l'aide de l'OEDC fondé sur le cadre théorique de C2 Pigeau-McCann. Au cours de ce processus, les évaluateurs ont contribué au guide de rédaction des DC, à l'examen de l'OEDC et au guide de l'utilisateur de l'OEDC.

On a conclu que la méthodologie utilisée pour la collecte et l'évaluation des DC constitue un bon moyen pour évaluer la validité du cadre théorique de C2 Pigeau-McCann. De plus, le guide de rédaction des DC, l'OEDC révisé et le guide de l'utilisateur de l'OEDC permettront une validation plus efficace du cadre.

15. KEYWORDS, DESCRIPTORS or IDENTIFIERS

(U) command challenges; command & control; C2