

Image Cover Sheet

CLASSIFICATION

SYSTEM NUMBER

508437

UNCLASSIFIED



TITLE

ISSUE PAPER ON TASK IMPACT ANALYSIS: IMPACT OF VESTED RIGHTS TO RANK ON
A DAY ONE TRANSITION TO TASK

System Number:

Patron Number:

Requester:

Notes:

DSIS Use only:

Deliver to: TC



DEPARTMENT OF NATIONAL DEFENCE
CANADA

OPERATIONAL RESEARCH AND ANALYSIS ESTABLISHMENT
DIRECTORATE OF MANPOWER ANALYSIS

D MAN A STAFF NOTE 6/91

ISSUE PAPER ON TASK IMPACT ANALYSIS:
IMPACT OF VESTED RIGHTS TO RANK
ON A DAY ONE TRANSITION TO TASK

by

P. BENDER
and
S. ISBRANDT

Staff Notes are written as informal records of data, analyses, tentative views, comments, methodology, or briefing material, which for one reason or another do not warrant or require formal publication. The contents are the responsibility of the author, and do not necessarily reflect the opinion of the Directorate.



ABSTRACT

A preliminary examination of the Non Commissioned Member (NCM) population under a Trade Advancement through Skill and Knowledge (TASK) scenario was completed by the Directorate of Manpower Analysis (D Man A) in support of the impact analysis of TASK over the summer of 1991. This paper addresses the short to medium term consequences of a "day one" transition to a TASK structure, focusing on the impact at the private and corporal levels.



TABLE OF CONTENTS

ABSTRACT	i
TABLE OF CONTENTS	ii
Introduction	1/11
TASK	1/11
Assumptions Used In The Preliminary Impact Analysis	2/11
Issue	3/11
Table 1. Current and TASK Rank Structures.	3/11
Modelling Considerations	4/11
Magnitude of the Problem	5/11
Table 2. Current NCM Summary	5/11
Table 3 - TASK Transitional NCM Summary	6/11
Table 4. MOC Breakdown by Magnitude of "O_CPL".	7/11
Duration of the "O_CPL" Bubble	8/11
Table 5. "O_CPL" Bubble Projection for MOC 811.	8/11
Conclusions	9/11
REFERENCES	11/11
ANNEX A	A1/3



**ISSUE PAPER ON TASK IMPACT ANALYSIS:
IMPACT OF VESTED RIGHTS TO RANK ON A DAY ONE TRANSITION TO TASK**

Introduction

1. A preliminary examination of the Non Commissioned Member (NCM) population under a Trade Advancement through Skill and Knowledge (TASK) scenario was completed by the Directorate of Manpower Analysis (D Man A) in support of the impact analysis of TASK over the summer of 1991. To provide a basis for comparison the same NCM population was similarly projected both under the current career progression structure as well as under a proposed TASK structure.

2. These population projections have highlighted several issues relevant to TASK and its implementation. A series of issue papers is being prepared by D Man A to describe significant outcomes or concerns associated with the preliminary analysis. This paper addresses the short to medium term consequences of a "day one" transition to a TASK structure, focusing on the impact at the private and corporal levels.

TASK

3. TASK is being investigated as an alternate career progression structure for NCMs. Within TASK, career progression would not only be upwards in rank as in the current structure, but also laterally in distinct skill levels. Many aspects of TASK need to be addressed by the Project Management Office (PMO) prior to a go/no-go decision on its implementation. The projections done by D Man A reflect many of the career progression related aspects of TASK. Other facets such as costing, training implications, and

operational implications are being addressed separately by PMO TASK.

4. PMO TASK is required to provide a detailed impact analysis of TASK for all relevant aspects in each and every NCM occupation. For the impact analysis of TASK on career progression D Man A was tasked to develop models in order to project the occupations for a period of 15 years. The model input was based on June 1989 establishment data as derived from PMO TASK's line by line occupational analysis as well as June 1989 NCM population data. Details of the methodology and data used in making the projections can be found in reference 1.

5. Implementation of TASK will bring many changes to career progression for NCM members in most Military Occupations (MOC). The predominant difference with current career progression is related to the subdivision of rank by qualification levels. This will allow some individuals to progress upwards in rank while others could progress laterally to higher qualification levels.

Assumptions Used In The Preliminary Impact Analysis

6. D Man A was requested, for the purpose of the TASK Impact Analysis, to model scenarios using particular assumptions which are critical to the issues which result from the modelling projections. These assumptions include:

- a) vested right to rank. Not only are current Master Corporals given the rank of TASK Corporal, but current Corporals are given a TASK Corporal rank level, even though they might have to offset a TASK Pte(J) position;
- b) "pull" promotion to Pte(J). The TASK scenarios do not include "push" promotion to the Pte(J) level. Rather,

the level is controlled by a Preferred Manning Level (PML); and

- c) no restrictions on recruitment at entry.

The extent and significance of the issue analyzed in this paper may depend in large part on the validity of these assumptions. Nevertheless, some of the issue effects may still be very significant even if the above assumptions are changed.

Issue

7. TASK will also change the basic rank structure. The table below shows both the TASK and current rank hierarchies from more senior ranks down to the (MOC) entry level ranks.

Current	TASK
CWO	CWO
MWO	MWO
WO	WO
SGT	SGT
MCPL	CPL
CPL	PTE(J)
PTE(T)	PTE(T)
PTE(B)	PTE(B)

Table 1. Current and TASK Rank Structures.

8. Both structures have the same number of ranks but TASK eliminates the rank of Master Corporal (MCpl) and introduces a new level at the private rank designated as Private Journeyman (Pte(J)). Under TASK all privates with Qualification Level (QL) 5A will be designated as Pte(J). This difference in the rank structure raises the problem of the members' rank designation after implementation of TASK, particularly for those at the MCpl and Cpl ranks. The philosophy used during the impact analysis stressed the concept of vested rights to rank. That is, all MCpls and Cpls

would become TASK Cpls. In addition, it was dictated that all privates with QL 5A or better were, upon implementation of TASK, to be made Pte(J).

9. The conversion to a new TASK structure must occur with a personnel inventory which has been developed under different rules and policies. In particular, the push promotion policy to the corporal rank under the current system creates a personnel inventory in which the number of personnel at the corporal rank level is independent of the number of corporal positions. This paper addresses the transition effect of moving from the present system to the TASK defined structure.

Modelling Considerations

10. In a typical MOC the implementation of TASK, under the assumptions just described, could see the Cpl rank population exceed the desired PML. This can occur since both the current MCpl and Cpl would be qualified to fill the TASK Cpl positions. For the purpose of the preliminary impact analysis any excess TASK Cpls are offset against Pte(J) positions. In cases where such an excess of TASK Cpls exceeds the number of Pte(J) positions, the trade will be considered to be overborne at the Pte(J) level. Following discussions with PMO TASK staff it was decided that these offsets would be quantified and tracked during the modelling exercise.

11. In modelling the TASK projections all MCpls were converted to TASK Cpls. Current Cpls were given an artificial rank designation of "O_CPL" indicating that these individuals were original corporals at the beginning of TASK implementation. The "O_CPL" designation is strictly used to identify the size of the offset against the Pte(J) rank. All "O_CPL"s are counted as TASK Cpls, yet any excess over the TASK Cpl PML is offset against the Pte(J) establishment. This is done to avoid artificially inflating

the overall MOC PML. In addition no member at the Pte(J) rank is promoted to Cpl until all offsets against the Pte(J) rank are eliminated (ie no TASK corporals in excess of PML).

12. In a large number of MOCs the proportion of "O_CPL"s offset against the Pte(J) rank is very large and takes several years to dissipate. These offsets are a direct result of the "day one" conversion to a TASK structure and mask the true impact of TASK. They limit the natural progression to the Pte(J) rank thereby creating career progression patterns that may be undesirable. This paper examines the magnitude and subsequent dissipation of the "O_CPL"s resulting from a "day one" conversion to a TASK structure.

Magnitude of the Problem

	PML	CURRENT POPULATION
MCPL	12702	11956
CPL	10832	21266
PTE(T) QL5		1557

Table 2. Current NCM Summary

13. The current PML and populations at the ranks of MCpl and Cpl are summarized in Table 2. The PMLs reflect the establishment and the population reflects the trained personnel in the Military Personnel Information System (MPIS) both as of June 1989. The large discrepancy between the PML and the population at the Cpl rank under the current structure results from the current career progression policy of "push" promoting privates to corporal. In practice these corporals fill Cpl/Pte(T) positions.

14. In moving the population to a TASK structure, under modelling assumptions, MCpls will be assigned to TASK Cpl positions

and as many O_CPLs will be assigned to the remaining TASK Cpl positions as possible. The remaining O_CPLs along with Pte(T) having QL5 qualification will be assigned TASK Pte(J) positions. Any surplus in personnel will be held as military manning overhead at the Pte(J) level. The overall transition effect is summarized in Table 3.

TASK Rank	TASK PML	Transitional Population			Total Surplus	
		MCpl	O_CPL	Pte(T) QL5		
Cpl	14622	11956	2996	-	14952	165
Pte(J)	15402		18270	1557	19827	4425

Table 3 - TASK Transitional NCM Summary

15. The 14622 TASK Cpl positions will be filled by the 11956 Mcpl and 2996 O_CPLs for a total TASK Cpl population of 14952. The surplus of 165 members is created because some of the MOCs have a surplus of current MCpls even though, altogether, the current MCpl level is below the PML.

16. In the transition, the 21266 O_CPLs are split between TASK Cpl and Pte(J) positions, 2996 and 18270 respectively. The 1557 qualifying Pte(J) are also assigned to Pte(J) positions resulting in an overall surplus of 4425 members. If TASK is to be implemented during a period of overall force reductions, this population must be addressed during the conversion.

17. The impact of this O_CPL bubble is transitional and not permanent. Preliminary results indicate that this transition could last anywhere from a few years to more than 10 years depending on the MOC. Within a TASK structure this bubble results in stagnation for "O_CPL"s and for personnel in the private ranks. No individual can be promoted to Pte(J) until the "O_CPL" offsets fall below the 100% of PML level. Even more, no Pte(J) will be promoted to Cpl

until the entire "O_CPL" bubble disappears from the Pte(J) positions. Details on this impact are presented in a companion paper at reference 2.

"O_CPL" as a % of Pte(J) PML	MOC ¹
0 to 50 %	065, 081, 091, 131, 141, 151, 191, 273 276, 331F, 851, 871
50 to 75%	031, 042F, 262, 275, 286F, 291, 435F
75 to 100%	021, 022, 111, 121, 161, 171, 274, 421 717F, 831, 841
100 to 125%	052, 321, 441, 725F, 811, 921
125 to 150%	011, 211, 224F, 231, 314F, 341F, 525F 551, 561, 562, 631, 861
150 to 175%	181, 411, 541, 563, 572, 625F, 651, 911 935
175 to 200%	212, 513F, 881, 933
200 to 300%	531, 862
over 300%	615F

Table 4. MOC Breakdown by Magnitude of "O_CPL".

18. Table 4 provides a breakdown of NCM MOCs by the magnitude of the offsets in relation to the Pte(J) PML for that MOC. For instance MOC 411 has a Pte(J) PML of 680 and 1045 "O_CPL"s. This number of "O_CPLs" results in an offset of 153.7% of the PML, representing a significant excess. Table 4 shows the approximate size of the offset for all NCM MOCs.

¹ In the Table the "F" suffix on some MOCs designate an occupational group (eg two feeder MOCs joining into one terminal MOC). Details on the modelling of related occupation groups can be found at reference 1.

19. This Table indicates a large range in the magnitude of the offsets. It varies from MOCs not having any offsets at all to others having more than double the Pte(J) PML as offsets. It is clear that most MOCs have a significant "O_CPL" bubble that needs to be addressed in any implementation of or transition to a TASK structure.

20. It should be noted that although the data used in this paper are for June 1989 very similar results would be obtained with June 1990 or June 1991 data. If anything it is likely that in a force reduction scenario the "O_CPL" bubble would be even larger, and the magnitude of the problem would be even more significant.

Duration of the "O_CPL" Bubble

21. To illustrate the typical dissipation of the "O_CPL" bubble on a representative MOC, discussion will be centred around MOC 811. For this MOC the magnitude of the problem is similar, at 116% of the Pte(J) PML, to that of the NCM's generally. Table 5 shows the projection of the "O_CPL" bubble through a 15 year period.

	YEAR									
	0	1	2	3	4	5	...	10	...	15
O_CPL	462	413	381	284	229	166		0		0
PTE(J)	0	0	17	114	169	232		398		398
TOTAL	462	413	398	398	398	398		398		398

Table 5. "O_CPL" Bubble Projection for MOC 811.

22. The only process which contributes to the reduction of the "O_CPL" bubble is attrition. Obviously this includes attrition amongst the "O_CPL"s as well as attrition at the ranks of Cpl and above. From Table 5 it can be seen that personnel are not promoted to Pte(J) rank until the number of "O_CPL" offsets fall below the Pte(J) PML of 398. The Pte(J) population then grows as the number of "O_CPL"s decreases. Assuming an overnight transition to TASK the results show that it would take about 7 to 8 years to eliminate the effect of the "O_CPL"s.

23. The Annex provides results similar to that contained in Table 5 for all MOCs as modelled for the impact analysis of TASK.

24. Needless to say this "O_CPL" bubble has serious consequences on the career progression of individuals in the MOC. Chief amongst these is the resulting stagnation in rank at both the corporal and private ranks. More details are provided in reference 2.

Conclusions

25. The renaming of the rank hierarchy creates an "O_CPL" bubble which is in large part a result of the current "push" promotion of privates to the rank of corporal as was shown in Table 2. This action results in a large excess of corporals above PML. Assuming a "day one" conversion to a TASK structure many Cpls will be offset against the Pte(J) PML. This is a result of the understanding that all Cpls and MCpls would become TASK Cpls. In practical terms, since there will still be 8 levels in the rank hierarchy, "O_CPLs" will get an automatic promotion to the fourth tier in the hierarchy, but will be held against positions in the third tier.

26. The transition effect of the "O_CPL"s in most MOCs is significant and sometimes very large. Consequently the true impact of TASK on career progression is masked by the distortions created

by conversion from a system that involves a "push" promotion policy to Cpl to a "pull" promotion policy to Cpl. In addition, the magnitude of this transition effect can be exacerbated under a force reduction scenario.

27. The impact of the "O_CPL"s interacts in important ways on many career progression related topics. These include time in rank, rank stagnation, promotion opportunities, the engagement conversion process and MOC viability (ie sustainability of the PML structure). These interactions are described in other companion issue papers.

28. It is evident that any implementation of TASK must address the "O_CPL" problem. It may be necessary to examine innovative ways of reducing the magnitude of the problem prior to or during a transition to a TASK structure. For example, if overall PML is to be maintained, temporary creation of Pte(J)/Pte(T) positions will have to be defined and the number of Pte(T) positions adjusted accordingly. If a "push" system of promotions from Pte(T) to Pte(J) is adopted then the stabilization process will be further aggravated.

REFERENCES

1. "TASK Impact Analysis - Methodology and Parameters for Modelling of a Day One Transition to TASK" (in preparation).
2. "Issue Paper on TASK Impact Analysis - Impact on Rank Stagnation of a Day One Transition to TASK", D Man A Staff Note 7/91, by P. Bender and S. Isbrandt.
3. "Issue Paper on TASK Impact Analysis - Effect of Current Engagement Conversion Policy Following a Day One Transition to TASK" D Man A Research Note 4/92, by P. Bender and S. Isbrandt.
4. "Issue Paper on TASK Impact Analysis - Observations on the Line by Line MOC Analysis as Used for Modelling TASK", D Man A Research Note 3/92, by P. Bender and S. Isbrandt.



ANNEX A

MOC	TASK PML			Transitional Population				O_CPL	Surplus (Shortage) at Pte(J)
	Cpl	Pte(J)	Total	MCpl	Cpl	Pte(T) QL5	Total		
011	326	342	668	312	470	95	877	456	209
021	310	290	600	223	329	193	745	242	145
022	137	73	210	136	72	43	251	71	41
031	1140	2080	3220	930	1665	358	2953	1455	(267)
042F	217	387	604	135	368	74	577	286	(27)
052	77	90	167	64	117	2	183	104	16
065	135	131	266	85	96	4	185	46	(81)
081	90	0	90	59	17	0	76	0	N/A
091	141	0	141	106	51	0	157	0	N/A
111	46	68	114	36	67	0	103	57	(11)
121	108	54	162	46	104	9	159	42	(3)
131	37	0	37	47	45	0	92	0	N/A
141	20	12	32	6	17	0	23	3	(9)
151	16	5	21	7	10	0	17	1	(4)
161	144	89	233	72	149	8	229	77	(4)
171	190	120	310	144	152	1	297	106	(13)
181	109	144	253	97	234	13	344	222	91
191	36	40	76	15	34	0	49	13	(27)
211	407	306	713	373	448	33	854	414	141
212	115	190	305	182	347	49	578	347	206
224F	493	476	969	456	713	7	1176	676	207
231	161	161	322	149	222	0	371	210	49
262	74	144	218	67	92	11	170	85	(48)
273	84	37	121	25	69	4	98	10	(23)
274	76	101	177	65	99	9	173	88	(4)
275	85	121	206	71	87	6	164	73	(42)
276	68	93	161	62	48	9	119	42	(42)
286F	239	321	560	172	261	2	435	194	(125)
291	184	475	659	253	253	1	507	253	(221)
314F	254	280	534	227	398	5	630	371	96

MOC	TASK Cpl	PML Pte(J)	Total	Transitional MCpl	Population Cpl	Pte(T) QL5	Total	O_CPL	Surplus (Shortage) at Pte(J)
321	58	108	164	66	112	1	179	112	5
331F	98	160	258	72	91	10	173	65	(85)
341F	13	45	58	15	66	0	81	66	21
411	623	680	1303	556	1112	46	1714	1045	411
421	100	95	195	72	116	2	190	88	(5)
435F	104	120	224	89	78	0	167	63	(57)
441	74	113	187	48	161	2	211	135	24
513F	896	851	1747	844	1679	195	2718	1627	971
525F	667	579	1246	647	822	62	1531	802	285
531	144	120	264	143	274	20	437	273	173
541	111	140	251	104	219	10	333	212	82
551	330	297	627	292	427	53	772	389	145
561	75	104	179	57	162	0	219	144	40
562	23	30	53	20	46	0	66	43	13
563	52	75	127	48	123	0	171	119	44
572	236	221	457	218	368	32	618	350	161
615F	145	108	253	85	412	0	497	352	244
625F	152	130	282	110	242	2	354	200	72
631	49	45	94	52	62	0	114	62	17
651	153	266	419	150	413	8	571	410	152
717F	526	343	869	315	515	16	846	304	(23)
725F	105	84	189	1	190	8	199	86	10
811	420	398	818	334	548	0	882	462	64
831	789	803	1592	595	970	7	1572	776	(20)
841	297	446	743	210	461	5	676	374	(67)
851	243	0	243	84	199	0	283	0	N/A
861	490	331	821	420	500	15	935	430	114
862	85	135	220	105	276	10	391	276	151
871	0	0	0	0	35	3	38	0	N/A
881	60	47	107	47	101	0	148	88	41

MOC	TASK PML			Transitional Population				O_CPL	Surplus (Shortage) at Pte(J)
	Cpl	Pte(J)	Total	MCpl	Cpl	Pte(T) QL5	Total		
911	833	908	1741	645	1600	48	2293	1412	552
921	51	26	77	48	30	15	93	27	16
933	241	151	392	227	311	1	539	297	147
935	708	813	1521	615	1501	50	2166	1408	645



#508437