



NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

**HOMELAND SECURITY KNOWLEDGE MANAGEMENT
FOR LOCAL LAW ENFORCEMENT IN THE NATIONAL
CAPITAL REGION**

by

Deirdre I. Walker

September 2005

Thesis Advisor:
Second Reader:

David Brannan
Phyllis McDonald

Approved for public release; distribution unlimited

THIS PAGE INTENTIONALLY LEFT BLANK

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE September 2005	3. REPORT TYPE AND DATES COVERED Master's Thesis	
4. TITLE AND SUBTITLE: Homeland Security Knowledge Management For Local Law Enforcement in the National Capital Region			5. FUNDING NUMBERS	
6. AUTHOR(S) Deirdre I. Walker				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey, CA 93943-5000			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A			10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution unlimited			12b. DISTRIBUTION CODE	
13. ABSTRACT (maximum 200 words) Within the last three years, Homeland Security (HLS) has emerged as a new focus for local law enforcement agencies throughout the nation. While local police must effectively address community needs associated with crime and quality of life, they are also now on the front lines of the nation's battle against the forces of international terrorism. Using existing knowledge (derived primarily from the emergency management field), police agencies have worked to develop locally relevant, viable and available expertise in the developing field of HLS. If federal estimates are accurate, however, a critical mass of these experts will retire within the next five years. As these organizational experts approach retirement, their communities will be forced to deal with the consequences of an exodus of fundamental knowledge, experience and expertise. Police organizations will be challenged to continue the efficient delivery of homeland security services absent the experts who were instrumental in developing the field. Existing research in Knowledge Management (KM) may offer some guidance to managing this problem. KM seeks to offer organizational guidance on how to identify knowledge generation processes and then leverage, maintain and manage knowledge assets within an organization. This thesis seeks to explore the potential application of KM theories to the real challenges faced by local police agencies in the National Capitol Region as they attempt to effectively engage HLS management.				
14. SUBJECT TERMS Public Safety, Knowledge Management, Knowledge Continuity			15. NUMBER OF PAGES 67	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UL	

THIS PAGE INTENTIONALLY LEFT BLANK

Approved for public release; distribution unlimited

**HOMELAND SECURITY KNOWLEDGE MANAGEMENT FOR LOCAL LAW
ENFORCEMENT IN THE NATIONAL CAPITAL REGION**

Deirdre I. Walker

Assistant Chief of Police, Investigative Services Bureau, Montgomery County, Maryland
B.A., University of Maryland, 1984
M.S., University of Maryland, 1999

Submitted in partial fulfillment of the
requirements for the degree of

**MASTER OF ARTS IN SECURITY STUDIES
(HOMELAND SECURITY AND DEFENSE)**

from the

**NAVAL POSTGRADUATE SCHOOL
September 2005**

Author: Deirdre I. Walker

Approved by: David Brannan
Thesis Advisor

Phyllis McDonald, Ed.D.
Second Reader/Co-Advisor

Douglas Porch
Chair, Department of National Security Affairs

THIS PAGE INTENTIONALLY LEFT BLANK

ABSTRACT

Within the last three years, Homeland Security (HLS) has emerged as a new focus for local law enforcement agencies throughout the nation. While local police must effectively address community needs associated with crime and quality of life, they are also now on the front lines of the nation's battle against the forces of international terrorism. Using existing knowledge (derived primarily from the emergency management field), police agencies have worked to develop locally relevant, viable and available expertise in the developing field of HLS. If federal estimates are accurate, however, a critical mass of these experts will retire within the next five years. As these organizational experts approach retirement, their communities will be forced to deal with the consequences of an exodus of fundamental knowledge, experience and expertise. Police organizations will be challenged to continue the efficient delivery of homeland security services absent the experts who were instrumental in developing the field. Existing research in Knowledge Management (KM) may offer some guidance to managing this problem. KM seeks to offer organizational guidance on how to identify knowledge generation processes and then leverage, maintain and manage knowledge assets within an organization.¹ This thesis seeks to explore the potential application of KM theories to the real challenges faced by local police agencies in the National Capitol Region as they attempt to effectively engage HLS management.

¹ Liebowitz, J. (1999). *Knowledge Management Handbook*. London: CRC Press

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

I.	INTRODUCTION.....	1
A.	PURPOSE.....	1
B.	IMPORTANCE.....	2
1.	Impact of the Attacks of 9-11.....	2
2.	Thesis Focus.....	4
C.	SOLUTION	5
D.	CHAPTER-BY-CHAPTER SUMMARY	6
II.	KNOWLEDGE MANAGEMENT OVERVIEW.....	7
A.	KNOWLEDGE MANAGEMENT DEFINED	7
B.	REVIEW OF RELEVANT LITERATURE.....	7
C.	RELEVANT DEFINITIONS.....	9
D.	CONCEPTUAL MODEL OVERVIEWS	11
1.	Conceptual Model I.....	11
2.	Conceptual Model II.....	13
3.	Conceptual Model III	14
4.	Conceptual Model IV.....	15
5.	Conceptual Model V	15
III.	METHODOLOGY	19
IV.	RESULTS AND FINDINGS	21
A.	RESULTS	21
1.	Interview Subject 1	21
2.	Interview Subject 2	24
3.	Interview Subject 3	25
4.	Interview Subject 4	28
5.	Interview Subject 5	29
B.	FINDINGS.....	31
C.	VALIDATION.....	33
1.	Subject 2 Validation.....	33
2.	Subject 5 Validation.....	34
3.	Subject 3 Validation.....	34
V.	DISCUSSION, RECOMMENDATIONS, VALIDATION	37
A.	DISCUSSION	37
1.	Framework for KM Action.....	37
B.	RECOMMENDATIONS:	40
1.	People	40
a.	<i>Recommendation 1: Engage All HLS Managers in a One-Half-Day Retreat on the Need for and Benefits of KM</i>	<i>40</i>

b.	<i>Recommendation 2: Engage All HLS Managers in a Quarterly Gathering Designed to Facilitate the Sharing of Ideas and the Development of Relationships.....</i>	<i>42</i>
2.	Processes	44
a.	<i>Recommendation 3: Encourage the MWCOG Police Chiefs’ Committee to Review the Organizational Structure of HLS Management.....</i>	<i>44</i>
3.	Technology	44
a.	<i>Recommendation 4: Encourage MWCOG to Offer a Password-Protected Bulletin Board and Chat Room for the HLS Managers to Engage in Continuing Conversation and Sharing.....</i>	<i>44</i>
C.	CONCLUSION	45
VI.	CONCLUSION	47
	LIST OF REFERENCES.....	51
	INITIAL DISTRIBUTION LIST	55

ACKNOWLEDGMENTS

It is very difficult to articulate the immense gratitude that is due to the staff and instructors at the CHDS. Without their commitment, this program would not be possible. I am personally gratified by having survived the selection process and can only hope that I have delivered partially on the promise that others, like Bill Pelfrey and Chris Bellavita, thought they saw in me.

I am also grateful for the patient assistance that I have received from my advisor, Professor David Brannan. Professor Brannan displayed commitment to the standards and traditions of academia and the NPS. He also demonstrated insight and flexibility as he guided my blind plodding into this foreign experience of thesis writing. He encouraged me without blowing smoke up my shorts. It is very humbling to attempt to digest a field as broad as that represented by KM, in eighteen months or less. Prior to my arrival at NPS, I had never heard of KM. Still no expert, I believe strongly that it holds the key to many of the challenges we in government face as the baby-boom transitions from the work force. Professor Brannan helped me to crystallize this vision and I am very indebted.

I am also very grateful to Dr. Phyllis McDonald from Johns Hopkins, who functioned as my spiritual guide and second reader. I am thankful for your interest in me as a professional and for your support of me as a student.

Professionally, I am extremely grateful to Chief J. Thomas Manger and my co-workers, Assistant Chief of Police John King and Assistant Chief of Police William O'Toole. Without their humor and general support, I would not have been able to complete this program. In a profession that is so very demanding and time intensive, their understanding carried the day. Additionally, it is very important for me to thank the dedicated professionals who served as the Interview Subjects for this work. Their interest and patience was critical and I am grateful.

I do not believe that I would have had the fortitude to complete this program without the people who comprise my cohort, 0402. To an individual you are amazing intellects and formidable leaders. You also comprise the most remarkable group of

people that I have ever been associated with. Our country is in good hands. Moo! Most especially, I am indebted to and generally in awe of John Coloe, Susan Reinertson and Michael Ordonez, who are some of the smartest, funniest people I have ever met.

Finally, I must express thanks to my family and to my friends. To my mother Elinor, and to my sisters Elinor and Val, I owe a lifetime of gratitude for challenging me to at least try to become as smart as you are. I guess I now have the credentials, though I will always lack the substance. To Hope and to Noah, I offer my undying love. I know I will never be able to repay the kindness and the patience that you have shown as I pursued two trips though graduate school during your short lives. When I look at your faces, I see the sacrifices that are required for this type of experience. I hope I have offered a positive example that education can make a difference in your lives, but the level to which you pursue that experience is a very personal decision. Good luck figuring it all out. I am certain that I have not.

To my dearest girlfriends, who have endured my crankiness, stress, and repeated absences, I also thank you. For so many years, you have been there and cared enough to really pay attention. You have an amazing tolerance for me and for my various academic pursuits, and I do not want anyone of you to think for a moment that I am unaware of your generosity.

To Ann, most significantly, thank you. You were the key and the glue that held me together when confusion, depression and fear threatened to derail this pursuit. Now, for better or worse, it is done and I can cut the grass.

I. INTRODUCTION

A. PURPOSE

Within the last three years, Homeland Security (HLS) has emerged as a new focus for local law enforcement agencies throughout the nation. In addition to addressing community needs associated with crime, local police are now on the front lines of the nation's battle against the forces of international terrorism. This critical responsibility was heaped upon police agencies already bearing a formidable workload; however, most agencies, especially those in metropolitan areas, have adjusted their operations to incorporate HLS management, aided significantly by billions of dollars in federal HLS funding. Using existing knowledge (derived primarily from the emergency management field), police agencies have worked to develop locally relevant, viable and available expertise on HLS management. Just as existing expertise provided the springboard, those subject matter experts (SMEs) already in-house were also pressed into service to identify and address HLS needs and challenges. Many of these experts are middle- and senior-level managers with decades of experience, coupled with distinct perspectives born of individually unique areas of expertise that are now being merged into the HLS management function.

Most significantly, if federal estimates are accurate, a critical mass of these experts will retire within the next five years. GAO estimates indicate that over 50% of the federal workforce will be eligible to retire in the next five years, and that nearly three-quarters of these employees are senior executives.² Additionally, the interest in securing the homeland has given birth to a new private industry that will likely attempt to leverage the same pool of experts. So, while local agencies attempt to manage the demands of the emerging science that is HLS, police managers and leaders face the challenge of protecting their communities while the pools of viable knowledge and experience, critically relevant to the newly defined mission, appear to be either immediately threatened or shrinking fast.

² Walker, D. (2000). *Managing human capital in the 21st century*. GAO. Washington, D.C.: USGPO

The purpose of this work is to identify a practical process whereby critical, fundamental and still-developing knowledge relevant to HLS can be isolated and captured for continuing organizational use. The research outcome offers a suggested framework or starting point for the development of a model policy in this critical area. The pending potential exodus of this critical HLS knowledge base is an emerging and apparently unacknowledged challenge for Chiefs of Police nationwide, and this thesis is intended to both raise the profile of this problem on a local level and offer an option to negotiate some of the obstacles associated with this pressing, but not fully-defined challenge.

B. IMPORTANCE

1. Impact of the Attacks of 9-11

The National Capital Region (NCR) of the Metropolitan Washington D.C area was directly and profoundly impacted by the attacks of September 11, 2001. The Pentagon is located in Arlington County, Virginia, which lies nearly at the geographical heart of the NCR. Many of the 64 people aboard the jetliner that crashed into the Pentagon, and many others among the 125 killed in the Pentagon, were long-term, permanent residents of the area.³ The attacks had an immediate operational impact for all emergency service providers in Arlington County and within all “bordering and surrounding jurisdictions.”⁴ Furthermore, the response “overcame the inherent complications of a response across jurisdictions because the Incident Command System, a formalized management structure for emergency response, was in place in the National Capital Region on 9/11.”⁵ Additional critical success factors for the response were strong, pre-existing relationships among the responding agencies, along with a regional approach to emergency management.

Local hospitals and burn unit populations were swollen as the injured were taken to various locations throughout the region for specialized treatment. When the attacks occurred, live pictures and reports of the fire at the Pentagon beamed across the local television station airwaves. The nationally significant event was reported as local news

³ *The 9/11 Commission Report: Final report of the National Commission on Terrorist Attacks Upon the United States*. New York: W.W. Norton Company

⁴ Ibid., p. 314

⁵ Ibid., p. 314

and the ramifications were nearly immediate. When Federal Government offices closed early and unexpectedly, hundreds of thousands of employees and government contractors streamed into the transportation infrastructure and proceeded almost immediately to clog major arteries throughout the region to the point of gridlock. While the response to the incident was immediate, due to a variety of factors the infrastructure support was very uncoordinated and slow to shift into rush-hour mode, where capacity is increased and travel is timed and coordinated throughout the region. Local police agencies engaged in mass call-backs of off-duty personnel in order to provide increased security at many high-profile and high-risk locations, and general increased visibility designed to assuage high levels of public anxiety. Local fire departments notified Arlington, Va. authorities of their availability to assist. Many resources were unilaterally dispersed to the scene.

In the aftermath and deconstruction of the response to the attack, authorities in Arlington were praised for their effective emergency management and coordinated response. What became clear was that the method and ability for achieving this outcome was not consistent throughout the region. Given that Washington D.C. and the adjacent region, in its role as the seat of national government, offers significant appeal as a terror target, it was accepted generally that a larger scale attack was possible, if not likely, and that the region needed to move toward improved local and coordinated HLS capabilities.

During the intervening years since 2001, many local police and fire agencies have benefited significantly from the availability of federal funding for enhanced HLS operations. While these agencies have obtained equipment and some training, other adjustments have been slower to occur. Local police agencies still differ dramatically in the level of emphasis placed on the HLS function. There is little consistency in staffing, structure or process, which presents obvious challenges, specifically among police agencies, should they be required to engage in emergency coordination. The pace of progress on mutual aid agreements has slowed due to a variety of issues, including concerns over civil liability. The lack of signed agreements impedes communication, further complicates the development of coordinated response plans and practically ensures duplication of effort regarding a variety of HLS projects.

2. Thesis Focus

The focus of this thesis is upon local-level HLS experts in police organizations in the NCR. While the organizational processes that have unfolded in response to the challenge of HLS management may appear to be progressing nicely, the process is neither predictable, nor is it without pitfalls. As indicated previously, GAO estimates indicate that approximately 50% of mid-to-senior-level managers at the federal level will become eligible for retirement in the next five years.⁶ Given that this estimate is based upon fairly recent census data, these figures can very likely be generalized to local- and state-level government workforces. Within local law enforcement, many of the individuals engaged in developing the new body of knowledge relevant to homeland security are middle- and senior-level managers. The likely consequence of the exodus of experienced managers who are helping to develop the local-level homeland security body of expertise is a potentially crippling knowledge loss within a developing knowledge area.

While these experts are currently and actively engaged in developing the entirely new field of knowledge that is HLS management, local law enforcement agencies remain disengaged from effective Knowledge Management (KM) and succession planning processes. Training for middle and senior managers in law enforcement is still frequently of a nature that is unstructured, haphazard and on-the-job.⁷ “Leaders toss people willy-nilly into new situations, incurring the costs of trial and error learning instead of those associated with more carefully planned transitions.”⁸ In the end, local police agency chiefs do not know what their employees know, and have no consistently effective way to capture or transfer that knowledge before these employees leave the workforce. Frequently, this type of dynamic emerges by default in smaller police agencies that lack the internal support for formal mentoring. These practices continue at an exorbitant and unsustainable cost in the face of the pressing challenges relevant to HLS management. As these organizational experts approach and engage retirement, those who remain will

⁶ Walker, D.

⁷ Sprafka, H. and Kranda, A. (2000). Best practices of institutionalizing mentoring into police departments. Available at <http://www.theiacp.org/documents/pdfs/publications/mentoring.pdf> [last accessed August 2, 2005]

⁸ Leonard, D. and Swap, W. (2004). Deep Smarts. *Harvard Business Review* On-line Version. September. Available at <http://hbsp.org> [last accessed August 2, 2005]

be forced to deal with the exodus of fundamental knowledge, experience and expertise. Police organizations will be challenged to continue the efficient delivery of homeland security services, absent the experts who were instrumental in developing the field.

C. SOLUTION

In law enforcement, knowledge about criminal activities or specific groups and individuals tends to be learned by officers who work in specific...areas. The information is often lost with personnel changes and has to be re-acquired by new officers.⁹

Existing research in Knowledge Management (KM) may offer some guidance to managing this problem; however, HLS is a newly developing field and there is no longitudinal history upon which to rely in order to fill the void created by an exodus of expertise. The challenge for local agencies, therefore, involves implementation of a procedure that will allow local Chiefs of Police to first identify what their experts know, and then activate an organizational process to capture that knowledge before these experts retire. The purpose of this thesis, therefore, is to seek to identify a practical method whereby that critical, fundamental and still-developing knowledge can be isolated and captured for continuing organizational use.

Knowledge Management (KM) is a burgeoning science that attempts to quantify human capabilities and identify and implement strategies for the efficient sharing of knowledge within organizations. KM is a term that is used to indicate how, among other things, knowledge can be embedded into both individual and combined organizational processes.¹⁰ It is also a burgeoning science that attempts to enable the quantification of human capabilities and the identification and implementation of strategies for the efficient sharing of knowledge within organizations.¹¹ KM seeks to offer organizational guidance on how to identify knowledge generation processes and then leverage, maintain and manage knowledge assets within an organization.¹²

⁹ Atabakhsh, H. et al. (2001). *Coplink Knowledge Management for Law Enforcement: text analysis, visualization and collaboration*. National Conference on Digital Government (white paper)

¹⁰ Rowley, J. (1999). What is knowledge management? *Library Management*, 20-8 416-419

¹¹ Rumizen, M. (2002). *The Complete Idiot's Guide to Knowledge Management*. Indianapolis: Alpha Books

¹² Liebowitz, J. (1999)

There are many levels of potential application of KM theories to the problems and challenges of HLS management. The consideration of managing knowledge assets becomes fairly critical given the pending retirements and the threats posed by the potential loss of organizational knowledge at all levels of government. When applied to developing disciplines like homeland security, the ramifications could be staggering. The facilitation of the continuing development of knowledge relevant to homeland security issues is an emerging, important and dynamic public safety task. To ensure that the continuity of this field of knowledge survives the development stage, during the exodus of knowledge, skill and expertise that will occur as baby-boomers retire, is critical to the security of individual communities and to the nation as a whole. Generally, law enforcement professionals do not yet have the grasp of homeland security as a discipline that will be required to ensure the safety of their local communities on a continuing basis. The predictable exodus of pools of local-level expertise will quickly render that grasp even more tenuous.

D. CHAPTER-BY-CHAPTER SUMMARY

Chapter I is intended to offer a summary description of the dilemma that is the focus of this thesis. Chapter II will provide an overview of KM to include a review of relevant literature, along with some conceptual models that appear relevant to the research question. These models will be used as the foundation for discussion and recommendations. Chapter III will describe the methodology utilized in this presentation. Chapter IV will offer a discussion of results that will focus on the current state of local HLS management by select police agencies in the Metropolitan Washington Council of Governments (COG) region. Specifically, Chapter IV will offer a description of contexts relevant to the HLS managers interviewed for this work, along with the relevant findings regarding identified knowledge areas and skills that these managers identify as most relevant to HLS management within their individual jurisdictions. Chapter V will identify and offer a general discussion of the significant findings and implications generated in this study and will conclude with recommendations for further steps in the study of HLS KM.

II. KNOWLEDGE MANAGEMENT OVERVIEW

A. KNOWLEDGE MANAGEMENT DEFINED

Knowledge Management (KM) is a term that is used to describe a variety of organizational processes, and according to Yang (2004), the territory of KM is “enormous and its boundaries are ambiguous.”¹³ KM is also a term that is used to indicate how, among other things, knowledge can be embedded into both individual and combined organizational processes.¹⁴ KM is a burgeoning science that attempts to enable the quantification of human capabilities and the identification and implementation of strategies for the efficient sharing of knowledge within organizations.¹⁵ KM also seeks to offer organizational guidance on how to identify knowledge generation processes and then leverage, maintain and manage knowledge assets within organizations.¹⁶ The field of KM was born of the transition from the industrial age to the information age, and it is based upon the assumption that corporate assets are currently represented most potently within the intellectual capital held by organizational members.¹⁷

B. REVIEW OF RELEVANT LITERATURE

By way of definition, the literature offers little in the way of one-stop shopping, due to the influence that varying research perspectives have had upon the end products.¹⁸ Generally and simplistically, the literature represents KM as an evolutionary process whereby an organization attempts to leverage and distribute, to the maximum extent possible, its own “knowledge assets” in pursuit of the organizational mission.¹⁹ The term ‘Knowledge’ refers to explicit, tacit, historical and subjective types of ideas, constructs, thoughts and beliefs as they travel through the filters of an organization’s human

¹³ Yang, J. (2004). Job related knowledge sharing: comparative case studies. *Journal of Knowledge Management*, 8-3, 118-126, p. 119

¹⁴ Rowley, J.

¹⁵ Rumizen, M.

¹⁶ Liebowitz, J. (1999)

¹⁷ Housel, T. and Bell, A. (2001). *Measuring and Managing Knowledge*. New York: McGraw-Hill

¹⁸ Beckett (2000). A characterization of corporate memory as a knowledge system. *Journal of Knowledge Management*, 4-4, 311-319

¹⁹ Kanter, J. (1999). Knowledge management, practically speaking. *Information Systems Management*, 7-15

resources, structure, culture and communication processes.²⁰ Management, in this context, regards those processes associated with the creation, identification, sharing, transfer and maintenance of that knowledge.²¹ Essential characteristics of KM include the ability to identify, warehouse, propagate and mine both knowledge that the organization is aware of and that which is implicit in its assets.²² Especially in fluid or developing disciplines, like HLS for instance, the strength of those assets is determined most significantly by human resources, due in part to the lack of longitudinal understanding and bench-marking of the developing discipline.

Organizational processes most readily associated with KM include the access, generation, documentation, embedding, transfer and use of knowledge within an organization that effectively generates a continuing modification in organizational behavior.²³ Within the context of facilitating a continual growth process, the measurement (benchmarking) and assessment of the value of organizational knowledge (knowledge lifecycle management) also play key, if more subtle, roles within an effectively executed KM process.²⁴

On this more subtle level, the organization must, at least within the context of KM, enable internal focus on its strategic pillars of people, processes and technology in such a manner that three results are generated:²⁵ First, van den Hoof and de Ridder (2004) offer that the organization must be structured in such a manner as to enable its people to share their agency cultures across functional silos, thereby facilitating the smooth transition of existing knowledge toward the creation of new knowledge.²⁶ Second, the organization's processes must be ordered in such a manner that will allow

²⁰ Housel, T. and Bell, A.

²¹ Rowley, J.

²² Rumizen, M.

²³ Garvin, D. (1993). Building a learning organization. *Harvard Business Review on Knowledge Management*. Boston: Harvard Business School Publishing

²⁴ Leung, et al. (2004). Benchmarking the role-modification process for successful knowledge transfer. *Benchmarking: An International Journal*, 11-6, 601-609

²⁵ Liebowitz, J. (1999)

²⁶ van den Hoof, B. and de Ridder, J. (2004). Knowledge sharing in context: the influence of organizational commitment, communication, climate and CMC use on knowledge sharing. *Journal of Knowledge Management*, 8-6, 117-130

systematic sharing of critical information among organizational layers, a process which remains frequently elusive in many types of agencies.²⁷ Finally, these processes must also then enable the embedding of tacit knowledge into organizational processes. Lopez et al. (2004), offer that the resulting ‘ideal’ climate will ultimately facilitate the establishment of a unified knowledge network.²⁸

Certainly, volumes have been written about KM as a topic, as a process and as an outcome. There is also extensive and recent research on KM applications; however, Syed-Ikhsan and Rowland (2004) indicate that comparatively little of this material appears to deal extensively with the application of KM within the context of public organizations. So, while there is apparently less KM initiative occurring within the public sector, the opportunity for application within government organizations appears to be ripe, especially as those applications regard developing disciplines.

Sawy and Majchrzak (2004) indicate that, in the face of the “unknowables” that characterize developing knowledge areas, KM becomes even more complex, knowledge creation cycles spin faster and the consequences for the mismanagement of knowledge become more profound.²⁹ The critical type of evolving discipline represented by HLS, therefore, appears to invite KM in real-time, especially given the potential life-and-death implications for failure. This paper is thus predicated upon the general thesis that it is at this early stage in the development cycle of the discipline of HLS that key KM principles should be introduced, especially in law enforcement agencies and most relevantly at the local level. The need is punctuated by the age demographic of those who are actively developing the discipline.

C. RELEVANT DEFINITIONS

For purposes of this thesis, it is important to offer as a baseline certain definitions and critical distinctions. Davenport and Prusak (1998) offer basic but important distinctions of key terms that are frequently and mistakenly interchanged. These

²⁷ Syed-Ikhsan, S. and Rowland, R. (2004). Knowledge management in a public organization: a study on the relationship between culture and organizational learning. *Journal of Knowledge Management*, 8-2, 95-111

²⁸ Lopez, S., Peon, J. and Ordas, C. (2004). Measuring knowledge: the link between culture and organizational learning. *Journal of Knowledge Management*, 8-6, 93-104

²⁹ Sawy, O. and Majchrzak, A. (2004). Critical issues in research on real-time knowledge management in enterprises. *Journal of Knowledge Management*, 8-4, 21-37

foundational terms include data, information and knowledge. Data is defined as “a set of discrete, objective facts about events.”³⁰ They argue that data has no inherent meaning and that too much data can make decision making harder. Information is defined as a “message” designed to change the perceptions of the receiver. The receiver of that message, and not the sender, decides upon the value of the message. “Data becomes information when its creator adds meaning.”³¹ Knowledge, they assert, is the human process of transforming information through various fluid and static processes and actions, including comparison, analysis of implications and relationships, and the use of conversation.

These definitions will be used as the baseline definitions for this work, as they effectively differentiate between data, information and knowledge. Data are a set of objective facts. Information is data that has been subjected, by the receiver, to a process whereby the data has been given meaningful form and has altered the receiver’s perceptions, beliefs and actions. Critically, it is the receiver, not the sender, who determines whether data becomes information, and this outcome results from five general processes. These processes include contextualization, categorization, calculation, correction and condensation.³² While some of these processes invite technological enhancement some, like providing context, remain inherently human activities.³³

Knowledge is also a human-oriented characteristic. Books, memoranda, policies and other information tools may be effective, interesting or informative (to the point, as indicated above, that they alter behaviors and actions), but these tools are not knowledgeable. “Knowledge derives from minds at work.”³⁴ It occurs and exists in people’s minds. It is both rigid and fluid. Knowledge emerges from information after

³⁰ Davenport, T. and Prusak, L. (1998). *Working Knowledge*. Boston: Harvard Business School Press

³¹ Ibid., p. 4. The authors also indicate that there are 5 ‘Cs’ relevant to the transformation of data into information. These include: Contextualization; Categorization; Calculation; Correction; and Condensation.

³² Ibid.

³³ Ibid.

³⁴ Ibid., p. 5

the information is subjected to inherently human processes like conversation, determination of relationships, understanding of implications and the ability to derive comparisons and contrasts between and among past experiences and situations.

D. CONCEPTUAL MODEL OVERVIEWS

Much of the literature serves to offer conceptual models relevant to the application of KM in various types of organizations. The following models were selected for inclusion into this work due to their relevance to KM challenges in public agencies. It is clear, however, that the degree of relevance varies according to key factors, including culture, cost and practicality. It is the goal of this presentation to isolate recommendations that are practical. Accordingly, any outcome must consider existing police culture, recommendations must be capable of being incorporated at low or no cost, and they must be realistic given the criticality of the service demands in public safety. That is, due to the true life-and-death nature of day-to-day activities, KM cannot become the focus, necessarily, of these organizations' work. To the degree possible, KM processes have to be melded into existing processes, using existing resources, with the goal of generating meaningful KM progress in the short-term.

1. Conceptual Model I

Liebowitz (2003) offers a suggested model for KM implementation in an 8000-member government organization that is based upon "people, processes and culture."³⁵ Liebowitz implies that technology is more means than end. He also indicates that successful KM implementation rests upon the establishment of basic KM tenets, including: integration of knowledge sharing, informing organizational members about the benefits of sharing, encouraging the process of learning from failure, educating organizational members on varying types and uses of knowledge, enhancing rewards and recognition and, finally, overlaying appropriate IT methodologies. Objectively, it is difficult to argue that these steps, engaged in a clinical environment, would not yield positive results. On a practical level, it appears that these steps are based upon certain assumptions that may prove somewhat problematic in smaller organizations, or in organizations with cultural characteristics that vary dramatically from the more cerebral one that Liebowitz researched.

³⁵ Liebowitz, J. (2003). A knowledge management implementation plan at a leading US technical government organization: a case study. *Knowledge and Process Management*, 10:4, pp. 254-259, p. 255

Indeed, with regard to the limited sample of local agencies surveyed for this work, certain important questions and concerns arise. First, in command and control organizations (like police agencies), it is unclear how, specifically, knowledge sharing can be better integrated into each member's job. It is also not clear what basic communication processes need to be in place to ensure that members can better understand the benefits of knowledge sharing. Furthermore, from a cultural perspective it is uncertain how, in very rigorous, para-military organizations, failure can be effectively protected, let alone encouraged. Finally, within organizations with rigid labor environments, it can be extremely difficult to adjust reward structures to encourage results that may vary from the more tangible goals of the employees' representative organizations.

If Liebowitz's model is to be relevantly generalized to a smaller, less technologically based organization or culture (like policing), these issues require some consideration, along with selectivity and strategy. Furthermore, while Liebowitz offers meaningful expected outcomes, it appears that the ability to offer objective near-term measures of success is incomplete. These preferred outcomes include notoriously hard-to-measure items like the establishment of a knowledge-sharing environment, a "strong sense of community," increased collaboration and embedded KM processes. He also indicates that "Success will ultimately be measured in terms of innovation, people retention, knowledge retention, productivity and 'mission success'."

With regard to organizational assets, Liebowitz offers that Knowledge Management Officers, Knowledge Stewards and Knowledge Retention Officers are responsible for knowledge retention at the organization, department and project levels, respectively. In a large organization, such as the one represented in the Liebowitz study, these positions may prove beneficial, but in smaller, leaner and locally funded organizations, these important functions rarely survive budget scrutiny and, therefore, must be absorbed by other workers if they are to be completed. None of the participant organizations in this study list any of the above position titles on their organizational charts.

Because of its inclusion of culture as an important pillar, implementation of this conceptual model at the local level could prove beneficial, but will undoubtedly require more distillation and the construction of more concrete measurement tools. In essence, the Liebowitz model clearly represents KM as new work with new capacity, in the form of the introduction of Chief Information Officer positions among other expansions. The critical distinction, therefore, is the lack of new capacity in the organizations studied for this work. The challenge in HLS management for local police involves the precariousness of meeting existing and developing demands, without the commensurate development of additional capacity.

2. Conceptual Model II

Neville and Powell (2004) proposed an interactive system for the capture and use of both explicit and tacit knowledge in a university environment. The proposed “Knowledge Base Support Environment” system was developed for use in an academic environment and relies heavily upon the availability and utilization of the internet as a tool that enables users to surpass the traditional limitations imposed by the classroom environment.³⁶ Most critically, they note that the system as proposed will “grow and change as both staff and students collaborate to add and extract material...” and that “[d]uplication of work” will be dramatically reduced.³⁷ The environment itself can be used by organizations in training and in the management and creation of knowledge.” If groups are basically defined as “people who are aware of one another and have the opportunity to communicate,” cooperate and collaborate to varying degrees, then the HLS managers interviewed for this work are, at least within the KM context, not a group, as no formal opportunity for collaborative interaction exists currently. These individuals are only generally aware of their counterparts and there is no structured opportunity in which they engage in relevant communication.³⁸

³⁶ Neville, K. and Powell, P. (2004). An interactive system for the collection and utilization of both tacit and explicit knowledge. *Creating Knowledge Based Organizations*. Hershey: Idea Group Publishing, p. 169

³⁷ Ibid., p. 172

³⁸ Ibid., p. 172

The Neville and Powell model focuses on critical aspects of the KM challenges similarly faced by the local police HLS managers, in that it deals specifically with the creation of knowledge through the promotion of group collaboration and cooperation through the use of a readily available resource (the Internet). Furthermore, the components of this model are highly relevant due to the stated focus on eliminating traditional limitations (represented by classrooms, in this case) and making group boundaries more permeable. In essence, the model advocates a redefinition of the group. This is an absolutely critical component of any KM solution for local police, who remain, to varying degrees, parochial and distinctively territorial. If it is accepted that one of the general goals of KM is efficiency through the elimination of redundant effort, then recommendations must acknowledge that HLS managers, regardless of agency affiliation, must form a new group and share knowledge across organizational boundaries.

3. Conceptual Model III

Montano (2004) similarly offers that virtual communities play a critical role in the overall success of KM efforts. Both virtual communities and communities of practice provide for the sense of sharing, creation and archiving of knowledge for future use. Communities of practice develop to identify solutions to the organization of groups' most pressing problems. Virtual Communities (VCs) are defined as groups with a formal notion of membership that lack a physical commonality, but who share common practices, interests and relationships.³⁹

Montano's study essentially focuses on three processes that are fundamental to the problem of HLS KM for local police. These processes include defining and understanding the role of technology, determining how that technology can enable KM, and defining and describing barriers that are created or eliminated by the use of technology. The study suggests that the creation of structured, virtual communities of practice may provide at least some of the answers to the research question in this study, so this section will offer further exploration of the development of virtual communities.

³⁹ Montano, B. (2004). Virtual Communities as role models for organizational knowledge management. In Gupta, J. and Sharma (Eds.), *Creating Knowledge Based Organizations*

The assets and advantages of this conceptual model appear to align favorably with the critical challenges that local police agencies face with regard to HLS KM. The interviews conducted for this thesis revealed that the organizations represented in this study do not facilitate knowledge sharing, as they similarly do not engage systematic archiving.⁴⁰ This deficiency appears to call out for a community approach.

4. Conceptual Model IV

Davis (2004) indicates that longitudinal focus on five KM principles can be critical to the success or failure of any KM initiative. It is important to highlight these operating principles at the beginning of the process cycle; the list includes alignment, ownership, global perspective, effective evaluative criteria and realism.⁴¹ It is also important to ensure that there exists an alignment between processes and outcomes. Encouraging participants to feel a part of the work, facilitation of a big-picture focus, iterative evaluation, adjustment and realistic assessments exemplify these desired objectives. This model indicates that knowledge management cannot effectively occur without the understanding of those who are to be impacted by the initiative. There is critical relevance of this suggestion to the local HLS managers who have been interviewed for this study.

5. Conceptual Model V

Siemieniuch and Sinclair offer a framework for what they term “knowledge lifecycle management,” which they entitled CLEVER.⁴² In a manufacturing environment, the authors studied methodologies for the dissemination of knowledge across functional boundaries and multiple project management. Their goal was to design a strategy that would be effective in addressing internal KM needs and those needs that surpass organizational boundaries. Here, the authors indicate that many companies had been successful with their implementation of pieces of KM projects. The CLEVER project was intended to offer a framework that would be effective in varying sectors, by a

⁴⁰ Montano, B.

⁴¹ Davis, C. (2004). A roadmap for long-term knowledge management success. *AIIM E-doc Magazine*, 36-38

⁴² Siemieniuch, C. and Sinclair, M. (2004). CLEVER: a process framework for knowledge lifecycle management. *International Journal of Operations & Production Management*, 24:11, p. 1105

range of businesses, across organizational boundaries. Furthermore, the authors indicated that knowledge has a lifecycle that starts with creation and ends with retirement, rather than death.

Perhaps the most promising component of the CLEVER project is the drive to develop a KM solution that has practical application. "...while many frameworks are an academic's delight...they are of little benefit to society unless they are usable by people in organizations faced with knowledge problems."⁴³ The study highlights the critical importance of process utility by those who likely need but might not understand KM. Furthermore, the CLEVER framework focused upon the inter-organizational and cultural impact that an effective process would require, as opposed to developing strategies associated with cultivating, mining, storing and other processes associated with IT. The authors continually monitored developments in the field of KM as they engaged an understanding of the real state of KM within the organizations and industries they were focused upon. They engaged an iterative, user-based model that was subject to continuous input from end-users, conducted one-day workshops for evaluative purposes and then used technological options to disseminate the end product.

Generally, the CLEVER model is based upon six general processes or characteristics. The model stresses that learning becomes a continual process engaged within a flexible environment, where bureaucratic hurdles are reduced to a minimum. Like Liebowitz, they stress the need for a blame-free culture where experimentation is encouraged and failure is expected and its effects are minimized by a team-based approach that is characterized by shared vision. In this environment, the creation and transfer of knowledge occurs as a cultural process and serves to enhance continued development of new products along with iterative improvement of organizational processes. Unfortunately, the authors also stress the need to apportion staff resources to the KM process; however, they recognize the current tendency in many organizations to be "anorexic rather than lean, and in such a context there are always many other tasks for people to do..."⁴⁴

⁴³ Siemmieniuch, C. and Sinclair, M., p. 1105

⁴⁴ Ibid., p. 1110

These conceptual models are offered for discussion and as a framework for a KM response to the challenges of local HLS management. Unfortunately, many of the models are conceived, introduced and discussed in a strictly academic, theoretical context. This paper attempts to isolate some opportunities and contexts for real-world, practical applications, within the context of public organizational entities. None of these conceptual models represents a plug-in solution within the context of this paper. Each of the models offers components that appear to meet the most pressing needs for the challenges relevant to HLS management. Further discussion of the more practical components of these models, specifically as they are embodied in recommendations, can be found in Chapter V.

THIS PAGE INTENTIONALLY LEFT BLANK

III. METHODOLOGY

This thesis is intended to at least begin to identify a process that can be initiated and institutionalized within, and between, local-level law enforcement agencies. The process is intended to enable these organizations to identify, collect, and manage knowledge relevant to homeland security, and then use that knowledge effectively in the continuing development of the HLS management field. If successful, the process will create and engage organizational, cultural and technological procedures that permit the continuing generation capture, archiving and actualizing of information relevant to the HLS management function. Ideally, the identified outcome will be repeatable and will enable local law enforcement agencies to address some of the challenges associated with the loss of HLS expertise in the short term, and then build into agency processes the mechanism for the capture and efficient activation of relevant homeland security knowledge over the longer term.

For purposes of this thesis, six local agency representatives were provided with an overview of this study proposal. Agency executives were selected for this study via three methods. Two agency executives were identified by their respective Chiefs of Police. Two agency representatives were identified as positional peers by the representatives that had been selected by the Chiefs. Two agency representatives were identified independently by the author, and one of those representatives declined the invitation to participate.

Each of the participating executives agreed to be interviewed on tape; however, most of the participants asked that they not be identified by name. The participating executives submitted to a semi-structured interview that was designed to ascertain a variety of information; however, the tone and method was decidedly conversational, with a consistent list of questions asked of the participants. The executives were asked about their own work and education history, characteristics of their communities (crime concerns, agency size and structure, geographical issues and socio economics,

population, etc.) These subject-matter experts were also asked to describe the nature of HLS management within their agency, and they were asked to identify major knowledge areas and skills that were required for their work.

The intent of the interviews was to capture practitioner perceptions on information relevant to certain KM premises espoused in the literature, while also permitting the identification of information that might prove either consistently applicable to all of the executives or unique and specific to the individual subject's environment. The following chapter provides an overview of each interview. Included in the overview is a description of the jurisdiction's major geographic and demographic characteristics, a description of the participant's rank and responsibilities, and the participant's description of the major HLS challenges currently faced by the represented jurisdiction. The information that is collected will be analyzed using the contextual frameworks and definitions offered in Chapter II.

Interviews were initially conducted in the Fall of 2004. After the completion of the interviews, the major portions of this thesis were compiled. Chapters IV and V were electronically transmitted to each of the participants during the Spring of 2005. The participants were then invited to offer feedback on the practicality and effectiveness of each recommendation. That feedback is reflected in the Validation section of Chapter III and is incorporated into the Recommendations section of Chapter V. The contextual frameworks and definitions offered in Chapter II will also provide structure to the recommendations offered in Chapter V.

IV. RESULTS AND FINDINGS

A. RESULTS

The following chapter reports results, findings and validation obtained from interviews and follow-up contact with a narrow sample of individual HLS practitioners in the NCR. These practitioners are law enforcement officers of varying ranks, backgrounds and levels of experience. At the time of each interview, the participants bore either primary or significant responsibility for the HLS function within their assigned agencies. As indicated in Chapter III, the participants were deemed appropriate for the study by virtue of their position, and were selected using varying methodologies (see Chapter III), including mere willingness to participate.

1. Interview Subject 1

Subject 1 holds the rank of Captain in a suburban Maryland police agency.⁴⁵ The agency is staffed by 1420 sworn members and 255 non-sworn personnel.⁴⁶ The agency is the primary law enforcement service provider for the county, which has a population of 816,791 residents (2001 census) and covers 485 square miles.⁴⁷ The jurisdiction is defined geographically by a shared border with Washington D.C., and is characterized primarily as residential; however, there are large pockets of industrial and retail establishments throughout the county. The jurisdiction is only minimally characterized by agricultural interests. The police budget is over 153 million dollars. In the past year, the jurisdiction has experienced a spike in both violent crime and some non-violent crimes, specifically auto theft. The jurisdiction currently experiences the second highest number of murders of any jurisdiction in the state, and reported rape is currently thirty percent higher than last year.

Subject 1 has been a police officer (with additional experience in one other law enforcement agency) for twenty years, and is eligible to retire within five years. Subject 1 holds a bachelors degree and a Master of Science. His current title is Director, Office of Intelligence and Protective Services and he indicated that the office was created after

⁴⁵ Interview with Subject 1, November 19, 2004

⁴⁶ Prince Georges County Police, 2003 Annual Report to the Community

⁴⁷ <http://co.pg.md.us> [last accessed June 25, 2005]

September 11, 2001 by shifting departmental resources to address emerging HLS concerns. Subject 1 has experience that primarily reflects a patrol orientation with an emphasis upon activities associated with community policing and administration, unlike the other subjects interviewed for this work, who indicated overwhelmingly a substantial background in special events, tactical and emergency management.

Subject 1 has current responsibility for security-related duties (including locations and people), and information and resource management. All department personnel involved in HLS and intelligence functions report directly to Subject 1. In August of 2004, a re-organization resulted in the movement of the department's crime analysis function under the command of Subject 1, who characterizes the proliferation of criminal gangs as the most pressing current threat to community safety.

Subject 1 identified major knowledge areas relevant to his position, which he further categorized as "soft skills and hard skills."⁴⁸ KM literature would appear to reflect these categories as tacit and explicit knowledge areas, respectively.⁴⁹ Areas of explicit or "hard skills" include grants management, intelligence management, and emergency management and training. The grants management function reflects a critical funding source for the department's HLS activities. This activity requires a very high degree of specialized knowledge, and used to be centralized prior to the dissolution and decentralization of the function. Areas of expertise required for this responsibility include the identification of relevant grant opportunities, the completion of grant applications, and the continuing management of funded grants. The Intelligence Management function includes the supervision of personnel assigned to both criminal and HLS intelligence functions, along with supervision and management of all internal intelligence-related databases. Emergency Management includes all coordinated response activities surrounding any activation of the county's Emergency Management Operations Center (EMOC). The EMOC is activated during periods of heightened need for public services (such as weather-related emergencies) or other unforeseen, unplanned emergencies like hazardous materials incidents, major traffic events, or other natural-disaster or large-scale criminal events. The training responsibility was characterized

⁴⁸ Interview with Subject 1

⁴⁹ Rumizen, M.

basically as the creation and engagement of table-top exercises. All of the activities associated with the "hard skills" were described as more rigorous, with policies and procedures attached that are designed to incorporate accountability and streamline resource flow and decision making.

Soft skills, or those areas of knowledge that are much more difficult to identify, quantify and/or capture include categories identified by Subject 1 as politics, collaboration and relationship skills. These "soft skills" also appear to lack specific procedures and boundaries, but appear no less critical to HLS than the hard skills identified by Subject 1. In response to the 9-11 Commission report, for instance, Subject 1 stated that the police department required a vastly improved relationship with its department of Fire Rescue and Emergency Medical Services. Political dexterity, defined loosely as the ability to maneuver effectively in a highly competitive, politically charged environment, is very important to Subject 1 due to the overlap in emergency functions of different county agencies, including police, fire, public works and public health. Subject 1 indicated that many of the county agencies were maneuvering for increased eligibility for HLS-related funding that had been made available to many jurisdictions by The United States Department of Homeland Security, especially under the Urban Area Security Initiative (UASI). Subject 1 described a politically charged external environment fueled by a perception that the police "and fire are getting all of the good stuff,"⁵⁰ and characterized the involvement of the county's public health entity in HLS as very limited, but potentially increasing. Subject 1 also indicated that the police department had little or no contact with any of these entities prior to the attacks of 9-11. Public expectations that were forged in the aftermath of these attacks have driven the need to begin to positively shape this relationship, which is now characterized by competition for funding.

Subject 1 stated that, due to the increasing focus on competing goals (specifically, the need to work cooperatively with agencies that are in competition for resources) the knowledge of how to craft meaningful professional relationships (which primarily requires communication skills), while developing and maintaining a big-picture focus, is

⁵⁰ Interview with Subject 1

critical in the HLS framework for his jurisdiction. With regard to knowledge transfer, Subject 1 indicated that his department is increasingly focused on documentation of initiatives, efforts towards those initiatives and outcomes. Documentation occurs in the form of spreadsheets that are made available to all members of the crime analysis unit or other interested parties, sometimes as needed and sometimes on a need-to-know basis.

2. Interview Subject 2

Subject 2 holds the rank of Lieutenant in a suburban Maryland jurisdiction that is geographically characterized as the mid-point between Washington D.C. and the city of Baltimore, which is the largest city in Maryland.⁵¹ This jurisdiction is immediately adjacent to the MWCOG region. The five hijackers of American Airlines flight 77 are known to have used lodging facilities in the county (Laurel, Md.) before re-locating to Herndon, Virginia.⁵² The agency is staffed by 358 sworn officers and 181 non-sworn personnel.⁵³ The agency is the primary law enforcement service provider for the county, which has a population of 265,935 residents and covers 251 square miles. The jurisdiction is primarily residential in nature, due to strict growth and land-use restrictions. Of all the jurisdictions studied for this work, the county is home to the most agricultural and least industrial or commercial land use. The annual budget for the county is approximately \$564 million, with over \$52 million dedicated to police operations. The jurisdiction has experienced a general decrease in both serious and less-serious crime. Subject 2 indicated that gang-related crime is the most pressing concern currently.⁵⁴

Subject 2 has 16 years of police experience, all with his current agency, and he is eligible for retirement within four years. He has experience in patrol, Special Weapons and Tactics (SWAT) and communications. He estimated that any person who moved into his current position would face a learning curve of up to two years. He stated that the landscape is changing so rapidly with regard to HLS management, that his position responsibilities are nebulous and similarly evolving.

⁵¹ Interview with Subject 2, December 17, 2004

⁵² *The 9/11 Commission Report*

⁵³ Howard County Department of Police, Annual Report, 2003

⁵⁴ Ibid.

Subject 2 is currently the department's director for the Office of Emergency Preparedness, a job title and unit created after the 9-11 attacks. The job description is evolving and presently includes supervision of a staff of two full-time and one part-time personnel. The two full-time members are permanently detailed to out-of-office responsibilities including the Maryland Joint Terrorism Task Force (JTTF) and the Maryland Coordination and Analysis Center (MCAC). Responsibilities for this position include grants management, emergency management, procurement, community outreach and information sharing and training (which involves the design and execution of field training exercises). With regard to the latter, Subject 2 stated that he has a security clearance from the FBI, but is not well versed in intelligence matters. Subject 2 identified the most critical skill related to his position as communication, specifically, the ability to communicate verbally. He described "knowing who to call" for assistance as a vital component of his work. He also listed the ability to recognize and negotiate the evolving intra-jurisdictional competition for resources, without generating enemies, as a critical skill relevant to his position.

Subject 2 generally acknowledged that duplication of effort is a fact of life for the local agencies represented in this study. In describing his own agency's approach to HLS management, he indicated that he felt an appropriate level of internal priority has been set, but that each local agency likely has different approach to the task.

3. Interview Subject 3

Subject 3 holds the rank of Lieutenant in a suburban Maryland jurisdiction that is geographically defined by a shared border with Washington D.C.⁵⁵ One of the September 11 hijackers is known to have landed a practice flight from New Jersey at a private airport in this jurisdiction.⁵⁶

The agency is staffed by 1140 sworn officers and 332 non-sworn personnel. The agency is the primary law enforcement service provider for the county, which has a population of 938,000 residents and covers 537 square miles. The jurisdiction is primarily suburban/residential in nature, with limited agricultural interests and a

⁵⁵ Interview with Subject 3, October 22, 2004

⁵⁶ "...on July 20, Hanjour...rented a plane from Caldwell and took a practice flight from Fairfield to Gaithersburg, Maryland, a route that would have allowed them to fly near Washington, D.C." *The 9/11 Commission Report*, p. 242

substantial business community as well. The annual budget for the department is in excess of \$150 million.⁵⁷ The jurisdiction has experienced a general reduction in violent crime, with some increases in non-violent crime, including fraud and theft.⁵⁸

Subject 3 has twenty-seven years police experience, all with his current agency, and he is currently eligible for retirement. He holds a B.S in criminal justice. At the time of this interview, Subject 3 was a deputy director of the department's Special Operations Division (SOD). He is currently assigned as the department's representative to the County's recently created, centralized Office of Homeland Security. Subject 3 has experience in training, patrol, emergency response and management and traffic enforcement. He has most recently engaged in significant training in the area of WMD and has been instrumental in standing up the department's Special Events Response Team (SERT). This unit is a fixed cadre of highly trained and specially equipped officers who can be detailed in advance or mobilized quickly for demonstrations, National Security Special Events, or other large scale events and emergencies.

In assessing his value to the organization, Subject 3 stated that he is in a unique position due to his function as a major repository for HLS knowledge within his agency. In attempting to assess how the agency would function in his absence, he assessed that it would be a challenge because of the difficulties in identifying and capturing knowledge and capabilities unique to the individual (born of training and education), along with knowledge derived from personal experience. Further, he indicated that, with regard to transfer of knowledge, the department has "no significant components on paper."⁵⁹ He also described a very dynamic environment, one where "there is no time to get your feet wet. Things are changing so quickly and it is difficult to be proactive," in a rapidly changing environment.⁶⁰

Subject 3 identified various categories of knowledge, critical to his position, that were similar to those identified by Subject 1. Subject 3 identified equipment selection and management, budget, grant identification and management, WMD training and

⁵⁷ Montgomery County Department of Police, Annual Report, 2002-2003

⁵⁸ Montgomery County Department of Police, Crime Report, Year End 2004. Internal report

⁵⁹ Interview with Subject 3

⁶⁰ Ibid.

response methodologies, collective bargaining provisions and personnel regulations as the major knowledge areas vital to his position. Subject 3 also offered specific distinctions between what he described as “technical” knowledge versus what he identified as “process” knowledge, which he associated with political dexterity. He generally indicated that to be successful, one may need to know the time, and yet not have the technical knowledge to build a watch. Knowing what the watchmaker needs and facilitating the success of the watchmaker, for instance, can be a critical form of “process” knowledge. Subject 3 offered WMD as an example, where he stated that he does not know how to clean a contaminated scene, but knows how to identify when a scene requires cleaning, and then understands how to manage the process toward a successful outcome.

Subject 3 offered brief descriptions of most of the knowledge areas and relevant skills itemized above. His descriptions were consistent with knowledge areas that are best described as tacit, as they are heavily guided by standard operating procedures and fairly rigid procedural guidelines.⁶¹ Subject 3 also spent a great deal of time during the interview discussing the impact of politics upon decision making. In an interesting and consistent dichotomy, he indicated that a cooperative working relationship with Fire Rescue was critical and that the relationship has evolved substantially since the terror attacks, but that the police and Fire Rescue are competing for the same pool of available resources. He stressed that being uniform and compatible in terms of response was critical for public safety, yet he stated, “Operational decisions are made based on financial benefit. There are different objectives” for each and, fundamentally, the outcome is driven by the desire to get more resources and have more power within the emergency planning and response environment.

Subject 3 stated that the availability of federal funding for homeland defense needs has turned traditional ‘budgeting’ equations around. He indicated that, traditionally, decision makers used the budget planning process to identify organizational needs and then attempted to secure political support for funding those needs. The new paradigm requires the creation of needs to fit the identified eligibility for funding and

⁶¹ Rumizen, M.

stresses the documentation of emphasis on outcomes, rather than the actual outcome. The availability of funding, he indicated, now more consistently drives previously unidentified operational needs or drives identified, lower-priority needs to an artificially higher level of priority.

Prior to late 2004, there had been no additional police positions dedicated to the work associated with HLS management, and his current position was generated by shifting resources as opposed to receiving additional assets.

4. Interview Subject 4

Subject 4 holds the rank of Captain in a suburban Virginia jurisdiction that is geographically characterized by a shared, natural border with Washington D.C.⁶² Coincidentally, the jurisdiction also borders Arlington, and provided mutual aid on September 11, 2001. The agency is staffed by 1852 sworn officers and 1309 non-sworn personnel. The agency is the primary law enforcement service provider for the county, which has a population of over 986,000 residents and covers 399 square miles. The jurisdiction is very similar to the jurisdiction represented by Subject 3. It is primarily suburban/residential in nature. The annual budget for the department is \$187 million. The jurisdiction has experienced an overall decline in the rate of serious crime, with the exception of aggravated assault.⁶³

Subject 4 has 19 years of police experience, all with her current agency, and is eligible for retirement within five years. Her experience is based in K9, Special Weapons and Tactics (SWAT), Civil Disturbance management, Explosives Ordinance, WMD, Marine Patrol and underwater search and rescue (SAR). At the time of this interview, Subject 4 was the director of the department's Special Operations Division; however, she is currently a district commander. Subject 4 stated that many new challenges and demands have arisen since the attacks of September 11 and that the fundamental nature of her responsibilities has changed dramatically since that time. Subject 4 stated that many of the needs dictated by the new environment have fallen to her, and to the units under

⁶² Interview with Subject 4, December 2, 2004

⁶³ Fairfax County Police Department, Annual Report, 2004

her command, by default. She indicated that the department has not created additional capacity but has increased training and modified existing jobs and components to absorb the new work associated with HLS management.

Subject 4 articulated (as did 4 of the 5 executives interviewed) that, given the vast and technically complex training she has received and experience she has garnered, it would be very difficult for the department to replace her should she die, retire or otherwise choose to leave. Subject 4 estimated that her replacement would require a minimum of a two-year learning curve; however, she indicated that “if nothing happens, there is no cost” for that curve. Subject 4 indicated that she also holds the responsibility for and knowledge relevant to intelligence, grants management and training. She stated that staying current on the areas of demand for training (in varied and technically complex fields) was drawing increasing levels of attention and that this demand was “heaped on” to her established workload. Organizationally, Subject 4 indicated that she believes, based upon her experience, that there has not been a high premium placed upon the knowledge relevant to HLS management. She stated, “They don’t think knowledge is that important.” Structurally, Subject 4 indicated that the organization would soon be required to implement reasonable measures to ensure knowledge continuity, since many of the supervisors and practitioners in highly technical areas, like explosives ordinance, for example, are currently eligible for retirement, yet it takes at least two years to train a technician. Subject 4 stated that this type of challenge permeates the most highly specialized functions relevant to the department’s HLS management.

5. Interview Subject 5

Subject 5 holds the rank of commander in an urban jurisdiction within the NCR.⁶⁴ The agency is staffed by 3800 sworn officers and 800 non-sworn personnel.⁶⁵ The agency is the primary law enforcement service provider for the city, which has a

⁶⁴ Interview with Subject 5, January 20, 2005.

⁶⁵ Metropolitan (D.C.) Police Department. Available at <http://mpdc.dc.gov> [last accessed June 24, 2005]

population of 572,000 residents and covers 68 square miles.⁶⁶ The annual budget for the department is \$377 million.⁶⁷

Subject 5 has thirteen years police experience, all in her current agency. She holds a B.A and a M.A, and is currently pursuing a M.S. Subject 5 is the only executive interviewed for this study who will not become eligible for retirement within five years. Her experience is based in patrol, supervision, and operations management and her current job title is Commander, Special Operations Division; the command houses the department's Special Operations, Special Events Management, and HLS/Counter Terrorism functions. Three years ago, the HLS function was added to the Special Operations' command; however, aside from two additional bomb technicians, no additional staff has been added.

Subject 5 identified areas of knowledge critical to the department's HLS management that are generally consistent with those identified by the other managers interviewed for this work. Specifically, she cited emergency response, intelligence, training and Explosives Ordinance as major areas of knowledge. She cited communication and political dexterity as important skills. Subject 5 indicated that the most significant short-term, operational challenge that her organization faces is the perishable nature of critical knowledge. Subject 5 described an environment where people obtain training and education in order to become a recognized expert in a particular field. Once recognized, these personnel routinely fail to remain current on that expertise, instead allowing it to become stale, outdated or obsolete, yet the department continues to recognize their expertise and rely upon their knowledge.

Subject 5 cited as an immediate, yet secondary, challenge the need for succession planning within her department. By way of example, she indicated that seven of eleven bomb technicians have been eligible for retirement for over five years, and any of these individuals could retire upon short notice and with drastic effect. In order to manage this potential exodus, Subject 5 has prioritized the need for cross training, whereby K9

⁶⁶ Enchanted Learning Software Home Page. Available at <http://EnchantedLearning.com> [last accessed June 25, 2005]

⁶⁷ Government of the District of Columbia FY2005 Proposed budget and financial plan executive summary. Office of the Chief Financial Officer. Available at <http://cfo.dc.gov/cfo/cwp/view> [last accessed June 25, 2005]

handlers, trained in explosives detection, also become trained as explosives technicians. This trend toward the centralization of highly technical areas of responsibilities is a short-term fix for a significant problem related to knowledge exodus. It also is a solution that perpetuates the dynamic of adding work without increasing capacity. Subject 5 stated that she does not believe her organization prioritizes the need to develop knowledge relevant to HLS. She also indicated concern for the vulnerability generated by the lack of knowledge-transfer mechanisms within her agency. In the dynamic area of HLS, Subject 5 stated that policy development and procedural institutionalization has not kept up with knowledge development.

B. FINDINGS

While the interviews offered a variety of interesting revelations, this chapter focuses on the areas where the interview subjects indicated a great deal of convergence or similarity in their methods and concerns. The concerns included succession planning, institutional memory, knowledge systems and the general identification of parameters. It appears that certain consistent generalizations can also be made regarding the state of HLS KM for local police in the NCR. First, just as there is no single accepted definition for KM, there appears to be no single definition for HLS. In fact, if information is considered to be a storable, retrievable, transmittable component of knowledge, then the interviewed practitioners fairly indicate that the ability to derive HLS knowledge is not universally apparent. There is little standardization surrounding how knowledge is generated and transferred, thereby raising the question as to whether there in fact exists a consistent level of knowledge about HLS. Rather, it appears to be a field with a growing body of information, and a great need for knowledge development, management and transfer.

A second significant finding indicates that while new demands have arisen and a great deal of new knowledge has been generated in order to meet those demands during the last three to five years, the affected organizations have not added capacity to address those demands. While new knowledge has been created, there have been few additions of relevant positions and personnel. The new knowledge is thus imbedded within existing components of the organization. These components have modified their mission

to adapt to the new demands; however, little of the existing work was off-loaded to make room for these demands. Thus, the creation of this new body of knowledge relevant to HLS appears to have occurred in a zero-sum environment.

Third, the knowledge described above appears to be tacit in nature. It resides in people's heads and very few formal procedures, those intended to capture that knowledge for later organizational use, exist or are being considered. With regard to knowledge flow, HLS knowledge appears mired in the socialization phase, where it is flowing in a rather unstructured way at an unpredictable rate from individuals to groups. This knowledge has yet to be subject to a formalization process that will enable its evolution from tacit to explicit; however, there are indications of an emerging trend toward formalization.⁶⁸ In organizations that tend to be heavy on policies and procedures, this presents a unique risk. As local police organizations attempt to engage the externalization and combination phases of knowledge flow, they risk losing the knowledge that is embodied in those persons in key positions. As the interviews indicate, the majority of these individuals will leave the organization sooner than the organization may be able to effectively engage these evolutionary stages.

Finally, and perhaps most significantly, it is clear that there is, among the HLS experts, an extreme duplication of effort necessitated by the lack of a centralized repository that enables interaction among the members of this currently invisible but potentially vibrant community of practice. The interviews revealed, along with the overlap of knowledge areas, that many of the experts are working on similar outcomes, at the same time, within organizationally imposed vacuums. None of the participants indicated that they engaged consistently in structured interaction with others in their fields, and none of the participants indicated that they routinely participate in virtual interaction relevant to the practice of HLS management. Also very significant are the wide-ranging perceptions of knowledge relevant to HLS and the lack of consistency among the departments' structures, applications and organizational value placed upon HLS management. None of the subjects indicated that they had available to them all of the resources needed to fully execute their responsibilities.

⁶⁸ Nissen, M. (2002). An extended model of knowledge flow dynamics. *Communication of the Association for Information Systems*, Vol. 8, 251-266

Some significant but less critical findings also emerged. Primarily, it appears that only one of the interviewed managers has command of the intelligence function. If, as some experts suggest, the future of HLS is in prevention, then it appears clear that the local agencies in the NCR have a need for an adjusted perspective. Additionally, all but one of the HLS managers were primarily oriented around response and recovery, yet only one of the managers cited as a critical knowledge area the understanding of the intelligence function as it relates to terrorism and the HLS function.

Generally, these findings appear significant on both the individual and organizational level. The following chapter outlines a suggested framework that is intended to offer a practical, low-cost method to immediately address these findings.

C. VALIDATION

Each participant in this study was offered an electronic copy of Chapters IV and V of this thesis. At the time of each interview, and again after providing chapter drafts, each participant was offered the opportunity to review the substance of the interview summaries offered in Chapter III, and to offer comment regarding the recommendations in Chapter IV. Unfortunately, and in spite of repeated requests from the author, only three of the participants provided feedback for inclusion in this section. All of these subjects indicated that the interviews were represented accurately, and the author is confident that any additional input received after the submission of this work will reflect the remaining two interviews as favorably reviewed and accurately represented.

1. Subject 2 Validation

Subject 2 confirmed the interview summary as accurate and offered that the recommendations appear practical and useful.⁶⁹ Subject 2, however, expressed apprehension that the political climate within the NCR would not support the recommendations. He articulated his belief that political pressures force agencies to effectively support a culture where they protect and hoard, versus share and cultivate, information and sources of information. He indicated his belief that, while there is an underlying desire among the lower ranks to share information, the actual process of sharing is not organizationally supported by higher-ranking members of the involved agencies.

⁶⁹ Personal Communication with Subject 3, June 15, 2005

2. Subject 5 Validation

Subject 5 also reviewed the information and confirmed the interview summary as accurate.⁷⁰ This subject similarly indicated that the recommendations proffered within this thesis are valid; however, Subject 5 reiterated skepticism regarding the acceptance of HLS as an organizational priority and again stated that her organization continues to espouse support for the HLS mission but, operationally, appears to support a somewhat different philosophy, akin to head-in-the-sand. Subject 5 also repeated some frustration at the perceived lack of organizational support for the priorities of HLS.

3. Subject 3 Validation

Subject 3 offered the most substantive input for inclusion in this section.⁷¹ Generally, Subject 3 indicated that all of the involved executives face similar challenges and mutual concerns that could be fairly addressed, at least initially, through increased opportunities for structured collaboration and communication. Subject 3 broke down his input into three major sections, including general workload, documentation and increased focus on prevention and the role of intelligence in prevention.

With regard to staffing, Subject 3 underscored one of the findings of this work. Subject 3 affirmed that the executives involved in this study are responsible for the additional duties associated with HLS, and yet have received no additional staff resources to assist with meeting the demands of the increased workload. He stated that their role as de facto Subject Matter Experts (SMEs) has resulted in greater demands to provide training, which is a very time-consuming duty. Prior to September 11, the demand for the provision of training was not nearly as great as the current demand. This investment creates a ripple effect in other areas, where the workload has also increased significantly. Specifically, Subject 3 indicated that there is far more paperwork to complete and that most of the paperwork, associated with grants, is detailed, tedious, voluminous and extremely time intensive. There is also paperwork in new areas, where the SMEs lack a historical reference.

⁷⁰ Personal Communication with Subject 5, June 24, 2005

⁷¹ Personal Communication with Subject 3, July 12, 2005

Subject 3 also highlighted the difficulty of challenges associated with “legal, labor and financial concerns” that either did not exist, or were not apparent, prior to September 11, 2001.⁷² He offered OSHA fit testing as an example, where union regulations prohibit the gathering and storing of information deemed mandatory by the funding authority. Finally, Subject 3 indicated that it is appropriate to be concerned by the diminished role of intelligence and the lack of focus upon prevention. Subject 3 fairly highlighted the efficiencies that could be achieved through additional focus on prevention through heightened intelligence sharing and collaboration; however, he indicated that current funding streams emphasize equipment that enables response and recovery activities. This conclusion appears to underscore the emphasis of outcomes driven by funding opportunities.

⁷² Personal Communication with Subject 3, July 12, 2005

THIS PAGE INTENTIONALLY LEFT BLANK

V. DISCUSSION, RECOMMENDATIONS, VALIDATION

A. DISCUSSION

The general findings appear to indicate support for the introduction of KM principles to the challenges of HLS management in the NCR. In applying KM principles to local HLS, there is no time more opportune than a point early in the development cycle in order to reap positive benefits. It is at this preliminary stage that the foundation for the organization's work, needs and goals within new knowledge areas is formulated. It is also at this point where the greatest opportunity to quickly ingrain KM principles exists. Once the goals are formalized, a "rush to the finish line" often follows, and this push frequently compromises KM program alignment with the general needs and goals of the organization. Rumizen (2002) advocates a tortoise vs. hare perspective, whereby organizations engage in a "gestational phase of discovery and exploration" that cannot and should not be rushed.⁷³ A rushed response might generate ill-defined or ill-fitting goals, poor planning and execution, inadequate support and no goal attainment. As the findings indicate, HLS is already rather nebulous and thus requires a thoughtful plan of implementation.

1. Framework for KM Action

Rowley offers generally a five-step plan for organizational action around a KM framework.⁷⁴ These steps include identification of objectives, narrowing of focus, honing the scope and type of effort, delineation of technologies and techniques, and clarification of support roles. This process of identifying objectives as a first step has been readily established as strategic organizational exercise. With regard to KM in local police agencies, three central areas require attention. Again, strategically it is important for organizational members and leaders to accept the breadth and depth of how much they do not know what they don't know.⁷⁵ Accordingly, these agencies must first develop mechanisms that will enable the itemization and leveraging of tacit knowledge,

⁷³ Rumizen, M.

⁷⁴ Rowley, J.

⁷⁵ Ibid.

which can then be effectively embedded, over time, in organizational processes. The near-term leveraging will then enable the intermediate retention of knowledge within the organization as the human capital crisis unfolds.

The second critical step for KM applications involves developing a project-focus approach. Indeed, part of the ingrained organizational process needs to be a continual review of what was driving the original goal. Injecting a KM perspective can thus enable managers to determine whether KM is appropriate at a project level or whether it is to be more organizationally ingrained. In advocating the introduction of a HLS KM process, it would appear reasonable to expect local agencies to crawl, then to walk. Accordingly, the orientation at the local level might best be toward the project, at least initially. This introductory process (which effectively represents the first step in planning for change), and the decisions that result from it, can cause pain, but the authority to initiate these reviews must be secured early and maintained consistently.⁷⁶ Since the interviews that were completed for this work serve to illustrate that the landscape associated with HLS knowledge development is both emergent and dynamic, this type of flexibility might be important to maintain.

The next step regards a delineation of the scope and type of relevant projects and measures that the agencies must engage in to both evaluate progress and ensure that the right work is getting done. This third and critical component of the KM framework involves selecting the appropriate criteria by which to evaluate success. As HLS appears to represent a continuing process, the selection of criteria for evaluation may vary from standard and accepted measures like schedule and budget. Davis (2004) cautions that successful KM is not a “sprint to the finish” as much as it represents a “stroll through the woods”.⁷⁷ While engaged in the sprint, it is tempting to invoke the more traditional benchmarks, which fail to offer analysis on the real value (or lack thereof) of the initiative. The critical nature of the HLS mission apparently invites a need for speed; however, a slower pace allows for the analysis of factors that are actively influencing the initiative and that might be less apparent when examined hurriedly. It is, in fact, a combination of “methods and measures” that offer the best evaluation of value added by

⁷⁶ Davis, C.

⁷⁷ Ibid., p. 2

the KM initiative.⁷⁸ For local agencies, these evaluations may involve elementary assessments of completion, successful goal attainment and lack of duplicate efforts between agencies.

After selecting criteria, technologies and techniques that can be utilized to support the implementation of KM, appropriate projects must then be identified. This process also involves management of the marriage between programs and technologies. Additionally, as the CLEVER project indicated, it is important that KM processes be practical and that they be embedded in work and not perceived as extra work, just as KM processes must be embedded in organizations and not merely added on to the organizational chart. Since the findings represented here indicate that, for many agencies, HLS currently represents added work, there has to be a process developed for sharing knowledge, strategies and operational commonalities. Then, as this study attempts to illustrate, technologies and techniques that can be utilized to support the implementation of KM projects must be identified and utilized. “Technology, experts agree, should be streamlined enough to integrate into a company’s operations, and it must be appropriate to the task.”⁷⁹

The final, and perhaps most critical, step in a successful knowledge management action plan regards the definition of roles for organizational members and maintenance of ownership that will engage with outcomes. Given the lack of consistency of job descriptions and organizational support levels for local-agency HLS activities, this appears to be an area that requires immediate action in the NCR-represented agencies. Critical among these roles is that of the leadership. Without fundamental support from the involved chiefs of police, therefore, KM is just dead in the water. The leadership component must wield influence and should also have a tangible stake in, and accountability for, the final outcome. The more influence, the greater the likelihood of success. “In every successful knowledge management effort...an important senior sponsor or sponsor group pushed for the initiative.”⁸⁰ Many KM experts feel that the role of the spirited evangelist or early adapter is critical to the success of any KM initiative,

⁷⁸ Davis, C.

⁷⁹ Babcock, P. (2004). Shedding light on knowledge management. *HRMagazine*, May, 46-51

⁸⁰ Rumizen M., p. 259

and such an evangelist is currently lacking in the local context.⁸¹ Once the leadership is on board, further role assignments designed to support the initiative can and must be made. It is critical that the local-level police managers that are responsible for HLS, along with other informal organizational leaders, be tapped to act as ambassadors for KM projects and initiatives. While benefits and challenges of compiling cross-disciplinary teams and communities of practice have yet to be outlined, consistent managerial commitment, oversight and sponsorship of HLS KM initiatives do not appear to currently exist.

B. RECOMMENDATIONS:

This study is intended to offer an overview of the problem of HLS KM as it exists within an environment that has been defined in a purposefully narrow manner, given the limited nature of the research. The recommendations that follow are admittedly basic. They are based upon an assessment of the HLS environment in the NCR, and upon the very basic tenets of KM. Furthermore, these recommendations acknowledge that very limited resources are available at this stage in the development of HLS KM. The recommendations that follow are classified according to the typology advocated by Liebowitz, which includes people (to include culture) processes and technology. Additionally, these recommendations, while basic, are intended to be effective.

1. People

a. *Recommendation 1: Engage All HLS Managers in a One-Half-Day Retreat on the Need for and Benefits of KM*

In conceptual model IV, Davis discussed the importance of involving, during the earliest implementation phases, those impacted by KM efforts. To that end, Koenig (2004) cites the often-overlooked need for the alteration of corporate culture in order to ensure that KM processes are seated well within the organization.⁸² This idea offers significant challenges for the HLS managers, since they represent different agencies, each with its own unique culture. For purposes of this work, the managers are being asked to broaden their perspective on which culture requires adjustment, in that it is not so much the culture of each agency as it is that of the portion of the profession that

⁸¹ Babcock, P.

⁸² Koenig, M. (2004). Knowledge management and user education: The unrecognized Achilles heel. In Koenig, M. and Srikantaiah, T. (Eds.), *Knowledge Management Lessons Learned: What Works and What Doesn't*. Medford, N.J.: Information Today, Inc.

each manager represents. Successful KM implementation must begin with support, education and training for users in order to offer any hope for successful implementation. KM, Koenig argues, is “more about people and corporate culture than it is about technology.”⁸³ Koenig indicates that among the most prevalent reasons for the failure of KM systems implementation are inadequate user training, poor fit between the proposed system and the users work environment, and a failure of the user to recognize personal benefits. For HLS managers, especially given the indication that HLS is added work, it is critical that they first understand the benefits of KM and the need for KM system implementation. For this reason, the primary recommendation involves at least a half-day overview of KM for HLS managers in the COG region. For many of these managers, KM currently represents an unknown; however, when certain process suggestions are offered (like the need for continuity of knowledge), these managers might readily submit that the suggestions are valid. These managers, as the CLEVER typology from conceptual model V indicated, must be offered the opportunity to reconcile the need for KM into the HLS environment, and they must be able to identify benefits for their organizations and communities.

Bennet (2004) states that knowledge workers use their intellect, experience and training to handle the challenges and to solve the problems that their organizations face.⁸⁴ HLS managers, then, are actually knowledge workers and they must, therefore, be informed and persuaded regarding the benefits of KM implementation first, before the introduction of an actual KM process or method. These benefits are both short term, with regard to the manager’s individual search for information, and long term, with regard to infusing the organizational processes with the resulting knowledge. If,

⁸³ Koenig, M. In citing a survey completed by KPMG, Koenig stated, “The culture of KM is nowhere near adequately aware of the importance of training and user education, and the KPMG Consulting report illustrates and illuminates the problem in a wonderfully compelling fashion by, ironically enough, not recognizing it.”

⁸⁴ Bennet, D. (2004). Learning and the Knowledge Worker. In Koenig, M. and Srikanthiah, T. (Eds.), *Knowledge Management Lessons Learned: What Works and What Doesn’t*. Medford, N.J.: Information Today, Inc., p. 511

as Srikantaiah (2004) states, KM is about connecting people for the purpose of sharing information, then those who are to be connected must want that connection and fully understand the potential benefits.⁸⁵

b. Recommendation 2: Engage All HLS Managers in a Quarterly Gathering Designed to Facilitate the Sharing of Ideas and the Development of Relationships

Each HLS manager would be encouraged to bring another, less senior, executive officer with an interest in HLS.

Clearly, KM results when connections between people are made. These connections are intended to facilitate the movement of knowledge between people via conversations, publications and databases, among other methodologies.⁸⁶ KM results when the connections enable the methodologies to leverage experiences, information, concepts and best practices. Given the extremely limited resources available, the lowest cost option is to offer these managers the opportunity to gather periodically to meet, face-to-face, to discuss initiatives, opportunities and work outcomes. These opportunities offer portholes in the silo walls, where officers of jurisdictions that are geographically side-by-side will get to peek, figuratively, at the work of the counterpart who wears a different uniform to work, but who might be dealing with identical problems. This very basic option offers the opportunity to reduce local redundancies and increase the opportunities for convergence of effort and for synergy.

There are real-world examples of successful KM applications, but these were not “light switch” applications. The organizations that have successfully engaged KM have undergone cultural modification by tying compensation to the process of sharing knowledge. Some private-sector entities have been successful by bringing together groups of eight to ten professionals with divergent areas of expertise, to tackle a

⁸⁵ Srikantaiah, T. (2004). Training and education in knowledge management. In Koenig, M. and Srikantaiah, T. (Eds.), *Knowledge Management Lessons Learned: What Works and What Doesn't*. Medford, N.J.: Information Today, Inc.

⁸⁶ Ibid.

specific project or emerging problem.⁸⁷ Once the problem is solved or the project is completed, the teams, known as PeopleWebs, are disbanded.⁸⁸

People Webs offer organizations an opportunity to create previously unexploited relationships. Quinn, et al, indicate that the "power of such interconnections is so great that even a modest number of collaborating independent professionals can leverage knowledge capabilities by hundreds of times."⁸⁹ People Webs are akin to Communities of Practice (COP), and to be successful they must have reliable data and communication platforms. The data platforms must provide COP members with access to the information that is needed for success and the communication platforms must offer both public and private venues.⁹⁰ Communities of practice develop to identify solutions to the organization's most pressing problems, and they can be "defined by disciplines, by problems or by situations," although they are usually reserved for single-organization participation.⁹¹ Once the problem is solved, the community dissolves as part of a natural flow. Not unlike communities within the social environment, communities disappear sometimes because they are no longer needed; however, they also evaporate due to lack of support or overt hostility.⁹² The community, once established, can be reinvigorated on new issues as needed or, as the CLEVER model theorizes, can and should be left intact, at the ready to deal with new problems. Wenger also forcibly asserts that establishing viable communities of practice represents a cornerstone of KM.⁹³ For HLS at the local level, organizational boundaries should not serve to constrict the construction of and participation in People Webs.⁹⁴ From the interviews, it appears that it is not that the HLS

⁸⁷ Rumizen, M.

⁸⁸ Quinn, J., Anderson, P. and Finkelstein, S. (1996). Managing professional intellect: Making the most of the best. *Harvard Business Review On Knowledge Management*. Boston: Harvard Business School Press

⁸⁹ Ibid., p. 200

⁹⁰ Rumizen, M.

⁹¹ Wenger, E. (2004). Knowledge management as a doughnut: Shaping your knowledge strategy through communities of practice. *Ivey business journal online*. p. 1

⁹² Gongla, P. and Rizzuto, C. (2004). Where did that community go? Communities of practice that disappear. In Hildreth, P. and Kimble, C. (Eds.), *Knowledge Networks: Innovation Through Communities of Practice*. Hershey: Idea Group Publishing

⁹³ Wenger, E.

⁹⁴ Ibid.

managers do not always know or understand what needs to be done to address these new and complex problems, nor do they have anywhere in their own organizations to turn for assistance. It is apparent that the police culture does not yet permit them the discretion to do what they need to do, nor does it offer them the option to seek assistance from those in similar positions.⁹⁵

2. Processes

a. *Recommendation 3: Encourage the MWCOG Police Chiefs' Committee to Review the Organizational Structure of HLS Management*

The MWCOG should immediately initiate a process for the development of standardization and best practices in HLS management. It is accepted that each of the agencies represented in this study are funded, structured and staffed differently, yet they face similar challenges, especially with regard to HLS. It is clear that on a variety of topics, these agencies have engaged in informal information sharing. Unfortunately, while regional coordination of resources relevant to HLS, as demonstrated by the Urban Area Security Initiative fund distribution process, has been prevalent and expected, no similar approach has been rendered with regard to the problems and decisions relevant to HLS in the NCR. At this point in the knowledge-development cycle, we are simply unable to look to one agency in the region as the standard bearer with regard to HLS. Given that all but one of the HLS managers interviewed for this survey are eligible to leave their agencies within three to five years, there is an immediate need to engage a process for the development of best practices.

3. Technology

a. *Recommendation 4: Encourage MWCOG to Offer a Password-Protected Bulletin Board and Chat Room for the HLS Managers to Engage in Continuing Conversation and Sharing*

To address communication needs, a single mode of communication designed to enhance the process of sharing ideas--an intranet, for example--could serve to enhance communication. A secure extranet would also be appropriate for use by a select group of customers. These and other common communication methods serve as knowledge-management standards and help involve users in KM processes. This user-level involvement is critical to the success of any KM initiative. Linking these

⁹⁵ O'Toole, P. (1995). *Leading Change*. San Francisco: Jossey-Bass

components to strategy and involving middle management in the creation of the communication strategy are also key components of success. Members could seek information on existing projects in other jurisdictions, and share information about ongoing initiatives in the member's home jurisdiction.

The conceptual models offered by Montano, and by Neville & Powell, serve to illustrate the importance of the interface between KM and IT. If the HLS managers can accept that technology can assist in both growing knowledge and in the transfer of knowledge from the tacit to the explicit, then perhaps another solution is embodied in the appropriate technological and social tools. Again, as previously indicated, there are limited resources available and thus there is a need to make KM part of the HLS management process, as opposed to creating additional work. For these reasons more informal methodologies, those associated with low-to-no-cost, must be considered.

C. CONCLUSION

The interview subjects who responded to the request for validation (presented in Chapter IV) unanimously indicated that the recommendations offered in this study are practical, modest and, thus, achievable. These recommendations, however, are by no means comprehensive. There are additional recommendations and observations to be made that will require further research, effort and discussion. The greatest area of concern revealed in this study is the inconsistency in priorities that has been demonstrated by all of the involved agencies. Generally, each of these agencies receives significant funding for HLS-related activities and training, yet each lacks relevant and appropriate staff resources, formal policies and written plans to effectuate those activities. As Subject 4 indicated, it appears that all of the involved agencies 'talk the talk' and then proceed to lump the growing list of duties, expectations and responsibilities onto one or two people, who already had plenty of work to do. Additionally, given that many of the experts are working simultaneously on similar projects, the mere introduction of a strategy for improved communication and collaboration could serve to generate at least a minimal level of efficiency. Unfortunately, the forces of competition appear to be driving the involved agencies into a vacuum characterized by redundant effort, poor documentation, and a fingers-crossed, "it could never happen here," operational

perspective. Finally, as indicated in Chapter I, police agencies are notorious for poor training and succession planning. Each agency is an individual entity, with different structure, philosophy, and expectations. Generally, the strengths of these agencies would appear to lie in the ability to respond quickly to unfolding emergencies, as opposed to planning for the response to emergencies. That is, the most important performance expectation is the ability to improvise, and the seat of the pants appears to represent a comfort zone with a strong gravitational pull that will only be broken by a concerted, meaningful effort.

VI. CONCLUSION

The recommendations that have been offered in this paper, though modest, are unique, specific and can be implemented in most organizations engaged in the HLS project, regardless of size or structure. From this starting point, however, a call to action can be formulated and a plan developed for additional work in this area. Generally, these recommendations have been generated within an admittedly academic context, after consideration of a number of practical goals, similar to those envisioned during the CLEVER study (see Chapter II). First, this study attempted to provide a description of the state of KM generally, and then a reality-based description of the state of KM for police in the NCR. Second, the overarching goal of this study was to provide practical recommendations (within an environment that is both fiscally and culturally restrictive) to those within the police agencies represented so that they might at least begin to address specific KM problems.

What proved most noteworthy throughout the interview process was the glaring lack of organizational focus on consistent information flow through the involved agencies, along with a consistent lack of formal mechanisms for capturing and regulating knowledge flow within these organizations. Additionally, relevant to HLS, these organizations lacked consistent mechanisms to facilitate information flow to the public. The agency representatives all expressed concern about the continuity of knowledge flow within their agencies; however, none of those representatives mentioned explicitly any effort to ensure that HLS knowledge translated to a public venue. It appears from this research, therefore, that the problem of knowledge flow in public agencies has two dimensions: internal and external. Further, it appears that not one of the agencies is consistently engaged in activities designed to facilitate knowledge flow internally. The agencies do not appear to be engaged, to any degree, in the development of external knowledge-flow capacity.⁹⁶

⁹⁶ Nissen, M.

Paul (2003) asserts that it is difficult, even during the best of times, to get people in a high-performing agency to share what they know.⁹⁷ When times are tough, as they are now in a time of national challenge, people tend to respond by hoarding knowledge and resources. According to Subject 3, this very situation appears to have manifested in the NCR. For local HLS, the outcome of this dynamic could prove tragic, yet the complete lack of KM continues within the NCR. In one recent incident, federal buildings were evacuated as an unidentified aircraft approached the restricted airspace surrounding the United States Capitol and the White House. The emergency decision to evacuate was policy based and was communicated quickly to the affected workers, yet the leadership and government of Washington D.C. was not party to the decision process that led to the evacuation, nor was it informed of the decision.⁹⁸ While the practical impact of the evacuation of thousands of workers onto city streets is not difficult to imagine, there is even more to be concerned with from a KM perspective. Specifically, the agencies impacted by the evacuation decision had not ever shared between them the existence of the evacuation policy, which is currently under review.

In order to more proactively address this type of real-world challenge, the affected police managers must first attempt to minimize competition for resources wherever practical, while they simultaneously maximize opportunities for collaborative relationships. The local police HLS managers must be able to ascertain instant benefit from the process of information sharing, whereby it provides instant return that exceeds the cost of the effort to participate in the process.⁹⁹ For the involved agencies, efficiencies are obtained when these easier-said-than-done activities are engaged readily and effectively.

On this complex level, the local-level KM plan for action must enable internal focus on strategic pillars in such a manner that three results are generated. First, the response must be organized in such a manner as to enable the involved managers to share information across agency cultures. Second, these processes must enable the

⁹⁷ Paul, L. (2003). Why three heads are better than one. *CIO*, 94-106

⁹⁸ Horwitz, S. (2005). False alarm over unidentified plane tested emergency response. *The Washington Post*, June 11

⁹⁹ Paul, L.

identification and embedding of tacit knowledge into organizational processes. Finally, a climate for shared learning and growth must be cultivated. That climate must ultimately facilitate the establishment of a unified knowledge network.

Local police leaders and managers must accomplish all of these complex steps quickly because the competition, as it is embodied by the forces of international terrorism, has proven itself willing, able and active on a local level. Within the new reality, police in the NCR are in direct competition, not only with criminals, but with terrorists as well. In what is an appropriate analogy to the war on terror, Nonaka indicates that in any economy, the only certainty is uncertainty and that knowledge offers the best hope for competitive advantage.¹⁰⁰ KM thus appears to offer a viable and reasonable process map for competitive advantage in the HLS mission. Indeed, the transition to KM is neither a panacea nor is it an overnight event. Some might even view it as rather “pie in the sky.” In spite of this type of assessment, the risks associated with the local fight against terrorism dictate action. The potential rewards of a practical KM strategy appear to make this effort more than worthwhile, and the recommendations in this paper attempt to make KM at the local level both practical and achievable.

¹⁰⁰ Nonaka, I. (1991). The knowledge-creating company. *Harvard Business Review On Knowledge Management*. Boston: Harvard Business School Press

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF REFERENCES

- Atabakhsh, H. et al. (2001). *Coplink Knowledge Management for Law Enforcement: text analysis, visualization and collaboration*. National Conference on Digital Government (white paper)
- Babcock, P. (2004). Shedding light on knowledge management. *HRMagazine*, May, 46-51
- Beckett, (2000). A characterization of corporate memory as a knowledge system. *Journal of Knowledge Management*, 4-4, 311-319
- Bennet, D. (2004). Learning and the Knowledge Worker. In Koenig, M. and Srikantaiah, T. (Eds.), *Knowledge Management Lessons Learned: What Works and What Doesn't*. Medford: Information Today, Inc.
- Blow, Michael. Prince George's County Police Department. Landover, Maryland. November 19, 2004
- Davenport, T. and Prusak, L. (1998). *Working Knowledge*. Boston: Harvard Business School Press
- Davis, C. (2004). A roadmap for long-term knowledge management success. *AIIM E-doc Magazine*, 36-38
- DeBoard, Maggie. Fairfax County Police Department, Fairfax, Virginia. December 2, 2004
- Drucker, P. (1988). The coming of the new organization. *Harvard Business Review On Knowledge Management*. Boston: Harvard Business School Press.
- Enchanted Learning Software Home Page. Available at <http://EnchantedLearning.com> [last accessed June 25, 2005]
- Fairfax County Police Department, Annual Report, 2004
- Garvin, D. (1993). Building a learning organization. *Harvard Business Review on Knowledge Management*. Boston: Harvard Business School Press
- Ginsberg, S. (2004). Revision to criteria reduces number of telecommuters. *The Washington Post*, July 22
- Gongla, P. and Rizzuto, C. (2004). Where did that community go? Communities of practice that disappear. In Hildreth, P. and Kimble, C. (Eds.), *Knowledge Networks: Innovation Through Communities of Practice*. Hershey: Idea Group Publishing
- Government of the District of Columbia FY2005 Proposed budget and financial plan executive summary. Office of the Chief Financial Officer. Available at <http://cfo.dc.gov/cfo/cwp/view> [last accessed June 25, 2005]
- Horwitz, S. (2005). False alarm over unidentified plane tested emergency response. *The Washington Post*, June 11

Housel, T. and Bell, A. (2001). *Measuring and Managing Knowledge*. New York: McGraw-Hill
Howard County Department of Police Annual Report, 2003
<http://co.pg.md.us> [last accessed August 3, 2005]

Kanter, J. (1999). Knowledge management, practically speaking. *Information Systems Management*, 7-15.

Koenig, M. (2004). Knowledge management and user education: The unrecognized Achilles heel. In Koenig, M. and Srikantaiah, T. (Eds.), *Knowledge Management Lessons Learned: What Works and What Doesn't*. Medford, N.J.: Information Today, Inc.

Lanham, William, Montgomery County, Maryland Department of Police. Rockville Maryland. October 22, 2004

Lanier, Cathy, Metropolitan (D.C.) Police Department. Monterey, California. January 20, 2005

Leonard, D. and Swap, W. (2004). Deep Smarts. *Harvard Business Review* On-line Version. September. Available at <http://hbsp.org> [last accessed August 2, 2005]

Leung, et al, (2004). Benchmarking the role-modification process for successful knowledge transfer. *Benchmarking: An International Journal*, 11-6, 601-609

Liebowitz, J. (1999). *Knowledge Management Handbook*. London: CRC Press

Liebowitz, J. (2003). A knowledge management implementation plan at a leading US technical government organization: a case study. *Knowledge and Process Management*, 10:4, 254-259

Lopez, S., Peon, J. and Ordas, C. (2004). Measuring knowledge: the link between culture and organizational learning. *Journal of Knowledge Management*, 8-6, 93-104

McKissick, Michael. Howard County, Maryland Police Department. Ellicott City, Maryland. December 17, 2004

Metropolitan (D.C.) Police Department. Available at <http://mpdc.dc.gov> [last accessed June 25, 2005]

Metropolitan (D.C.) Police Department, Annual Report, 2003

Montano, B. (2004). Virtual Communities as role models for organizational knowledge management. In Gupta, J. and Sharma (Eds.), *Creating Knowledge Based Organizations*

Montgomery County Department of Police, Annual Report, 2003

Montgomery County Department of Police, Crime Report, Year End 2004. Internal Report

Motsengios, A and Young, J. (2002). KM in the U.S Government sector. *KMWorld*, October 2002, 11-9, 16-18

Neville, K. and Powell, P. (2004). An interactive system for the collection and utilization of both tacit and explicit knowledge. *Creating Knowledge Based Organizations*. Hershey: Idea Group Publishing

- Nissen, M. (2002). An extended model of knowledge flow dynamics. *Communication of the Association for Information Systems*, Vol. 8, 251-266
- Nonaka, I. (1991). The knowledge-creating company. *Harvard Business Review On Knowledge Management*. Boston: Harvard Business School Press
- O'Toole, Peter (1995). *Leading Change*. San Francisco: Jossey-Bass
- Paul, L. (2003). Why three heads are better than one. *CIO*, 94-106
- Prince Georges County Police, 2003 Annual Report to the Community
- Quinn, J., Anderson, P. and Finkelstein, S. (1996). Managing professional intellect: Making the most of the best. *Harvard Business Review On Knowledge Management*. Boston: Harvard Business School Press
- Rowley, J. (1999). What is Knowledge Management? *Library Management*, 20-8, 416-419
- Rumizen, M. (2002). *The Complete Idiot's Guide to Knowledge Management*. Indianapolis: Alpha Books
- Sawy, O. and Majchrzak, A. (2004). Critical issues in research on real-time knowledge management in enterprises. *Journal of Knowledge Management*, 8-4, 21-37
- Siemieniuch, C and Sinclair, M. (2004). CLEVER: A process framework for knowledge lifecycle management. *International Journal of Operations & Production Management*, 24-11, 1104-1125
- Sprafka, H. and Kranda, A. (2000). Best practices of institutionalizing mentoring into police departments. Available at <http://www.theiacp.org/documents/pdfs/publications/mentoring.pdf> [last accessed August 2, 2005]
- Syed-Ikhsab, S. and Rowland, F. (2004). Knowledge management in a public organization: a study on the relationship between organizational elements and the performance of knowledge transfer. *Journal of Knowledge Management*, 8-2, 95-111
- The 9/11 Commission Report: Final report of the National Commission on Terrorist Attacks Upon the United States*. New York: W.W. Norton Company
- van den Hoof, B. and Ridder, J. (2004). Knowledge sharing in context: the influence of organizational commitment, communication climate and CMC use on knowledge sharing. *Journal of Knowledge Management*, 8-6, 117-130
- Walker, David. (2000). *Managing human capital in the 21st century*. GAO. Washington, D.C.: USGPO
- Wenger, E. (2004). Knowledge management as a doughnut: Shaping your knowledge strategy through communities of practice. *Ivey business journal online*
- Wiig, K. (2002). Knowledge management in public administration. *Journal of Knowledge Management*, 6-3, 224-39
- Yang, J. (2004). Job-related knowledge sharing: comparative case studies. *Journal of Knowledge Management*, 8-3, 118-126

THIS PAGE INTENTIONALLY LEFT BLANK

INITIAL DISTRIBUTION LIST

1. Defense Technical Information Center
Ft. Belvoir, Virginia
2. Dudley Knox Library
Naval Postgraduate School
Monterey, California
3. David Brannan
Center for Homeland Security
Naval Postgraduate School
Monterey, California
4. Phyllis McDonald, Ed.D.
Police Executive Leadership Program
Johns Hopkins University
Baltimore, Maryland
5. Martha Plotkin
Police Executive Research Forum
Washington, D.C.
6. Deirdre Walker
Montgomery County Department of Police
Rockville, Maryland