



NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

**ASSESSING THE UTILITY OF WORK TEAM THEORY IN A
UNIFIED COMMAND ENVIRONMENT AT CATASTROPHIC
INCIDENTS**

by

Douglas R. Templeton

March 2005

Thesis Advisor:
Second Reader:

Maria Rasmussen
Richard D. Lawrence

Approved for public release; distribution is unlimited.

THIS PAGE INTENTIONALLY LEFT BLANK

REPORT DOCUMENTATION PAGE			<i>Form Approved OMB No. 0704-0188</i>	
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 March 2005	3. REPORT TYPE AND DATES COVERED Master's Thesis	
4. TITLE AND SUBTITLE: Assessing the Utility of Work Team Theory in a Unified Command Environment at Catastrophic Incidents			5. FUNDING NUMBERS	
6. AUTHOR(S) Douglas R. Templeton				
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 is unlimited.			12b. DISTRIBUTION CODE	
13. ABSTRACT (maximum 200 words) Since 9/11 much progress has been made by Federal, State and local authorities to prepare for future Catastrophic Incidents. The March 1, 2004 release of the National Incident Management System (NIMS) mandated the use of Unified Command and Incident Management Teams (IMTs) for multi-agency, multi-jurisdictional incidents. These teams have strong potential for improving complex incident management. However, the potential for interagency conflict threatens effectual IMT functioning in the absence of team skills instruction as part of a national training curriculum. The current curriculum teaches technical skills and ICS role responsibilities, and omits skills needed to build healthy team dynamics. Training for IMTs needs to include more than technical skills ("What to do"), and that Department of Homeland Security (DHS) should expand the curriculum to include team dynamics ("How to do it"). Further, DHS need not "re-invent the wheel" when looking for sources of team dynamic theory, but need only look to and adapt the experience of business and academia. Over the past 20-25 years a variety of inter-organizational networks and Work Teams have been studied and field tested. This thesis examines literature lessons on the problems shared by Work Teams and IMTs, with particular emphasis on effectiveness and managing conflict.				
14. SUBJECT TERMS NIMS, Incident Management, Unified Command, Incident Management Teams, Incident Command System, Emergency Response Providers.			15. NUMBER OF PAGES 107	
			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 is unlimited.

**ASSESSING THE UTILITY OF WORK TEAM THEORY IN A UNIFIED
COMMAND ENVIRONMENT AT CATASTROPHIC INCIDENTS**

Douglas R. Templeton
Civilian, Division Chief, Austin Fire Department
B.A.A.S., Texas State University, 1993

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
March 2005**

Author: Douglas R. Templeton

Approved by: Maria Rasmussen, Ph.D.
Thesis Advisor

Lt. Gen. (Ret.) Richard D. Lawrence, Ph.D.
Second Reader

Prof. Douglas Porch
Chairman, Department of National Security Affairs

THIS PAGE INTENTIONALLY LEFT BLANK

ABSTRACT

Three and one half years removed from the events of September 11, 2001 the threat of terrorism to the U.S. homeland continues, as does our national preparation for response to terrorism incidents and other all-risk catastrophic incidents (CIs). Much work has been done by Federal, State and local authorities to prepare the nation for future CIs. The National Strategy for Homeland Security (NSHS) has been adopted, and implementation continues. One portion pertaining to emergency response providers is the requirement for a commonly used, commonly trained organizational system and structure called the National Incident Management System (NIMS).

The March 1, 2004 release of the NIMS effectively mandated the use of Incident Management Teams (IMTs) for multi-agency, multi-jurisdictional, and/or multi-sector incident response. The NIMS-designated incident management structure is Unified Command (UC) staffed by a local or regional IMT. IMT is the common name of a group of individuals that are formed from multiple agencies having jurisdiction, and who provide command and control functions at emergency incidents. These teams have strong potential for improving complex incident management. However, the potential for interagency conflict threatens effectual IMT functioning in the absence of team skills instruction as an integral portion of a national IMT training curriculum.

The IMT curriculum concentrates on technical/role responsibilities under the Incident Command System and omits team dynamics skills. This thesis presents the case that the training for IMTs needs to include more than merely technical skills (“What to do”), and that Department of Homeland Security (DHS) should formalize a portion of the curriculum to include team dynamics (“How to do it”). Further, it argues that DHS need not “re-invent the wheel” when looking for sources of team dynamic theory, but need only look to and adapt the experience of business and academia. Over the past 20-25 years a variety of team configurations and types have been studied and field tested. Particularly pertinent to the IMT model are the inter-organizational networks that combine members into Work Teams from multiple disciplines and agencies. This thesis examines studies that shed light on the problems shared in common by Work Teams and IMTs, with particular emphasis on team effectiveness and managing conflict.

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

I.	THESIS INTRODUCTION	1
A.	THESIS PROBLEM AND SCOPE: CHAPTER SUMMARIES	2
B.	A SHORT INCIDENT COMMAND SYSTEM PRIMER.....	10
C.	NEED FOR THIS STUDY	12
II.	EMERGENCY RESPONSE PROVIDERS—STRANGE BEDFELLOWS, AND A COLLISION OF CULTURAL WORLDS.....	15
A.	OCCUPATIONAL/ORGANIZATIONAL CULTURE IN LITERATURE	15
B.	THE DEFINITION AND PURPOSE OF CULTURE	18
C.	CULTURE AS A FORCE ACROSS OCCUPATIONS	20
D.	THE INCULCATION OF CULTURE AT HIGH RANKS.....	22
E.	HOW MYTH CONTRIBUTES TO CULTURE	23
F.	THE SIBLING CONNECTION.....	25
G.	MYTHS AND FOLKLORE FROM THE LOCKER ROOM.....	27
H.	COMPETITION, RIVALRY, AND PUBLIC SAFETY’S HERO CULTURE	27
I.	DISCIPLINE-SPECIFIC CULTURAL ISSUES	29
1.	Law Enforcement.....	29
a.	<i>LE Officers View Themselves as the Ultimately Responsible Party (to the Exclusion of Other Emergency Services Partners) at Major Incidents.....</i>	29
b.	<i>LE Command Officers View Most Major Incidents Primarily as Crime Scenes.....</i>	29
c.	<i>LE Officers Work Primarily/Routinely as Individuals (One Riot, One Ranger).....</i>	30
d.	<i>The LE Culture Reinforces Independent Action Primarily, and Coordinated Teamwork Occasionally.</i>	30
e.	<i>LE Embraces and Values the Quasi-Military Culture, and Where Provided, Civil Service Status and Protection.....</i>	31
2.	Fire Service	31
a.	<i>FS Commanders View Themselves as Expert Incident Managers and the Owners/Keepers of the Incident Command System.....</i>	31
b.	<i>The FS Works in Teams and Teams-of-Teams in Routine Response Activities.....</i>	32
c.	<i>FS Commanders Stigmatize “Freelancing”—Activities not Coordinated Through the IMT.</i>	32
d.	<i>FS Commanders Resent “Special Treatment” of Police Regarding Salaries and Equipment.</i>	32
e.	<i>The FS Embraces and Values the Quasi-Military Culture, and where Provided, Civil Service Status and Protection.</i>	33

f.	<i>The FS is Heavily Tradition-Oriented, is Famous for Resisting Change, and Many Departments/Members Have a Long Memory for Perceived Wrongdoings.</i>	33
3.	Emergency Medical Services	34
a.	<i>EMS Views Their Mandate as Special Because They Deal with Life and Health Issues Rather Than Mere Property.....</i>	34
b.	<i>EMS Views Their Discipline as More Complex/Intellectual Versus the Simplicity of LE/FS.</i>	34
c.	<i>EMS Has a “Load and Go” Culture That Has Them On-Scene Performing Their Specialized Skills—Typically—for 10 to 30 Minutes.</i>	35
d.	<i>EMS Does Not Embrace the Quasi-Military Culture, and More Closely Identifies with Hospital Culture.</i>	35
e.	<i>EMS as a Discipline is Young and Has Not “Paid Their Dues” in the Eyes of the FS and LE.</i>	36
4.	All Emergency Services	36
a.	<i>Emergency Workers Feel Responsible to Perform Well That for Which They Have Been Trained.....</i>	37
b.	<i>Failure to Take Charge is Viewed as Negative by All Three Services.</i>	37
c.	<i>All Three Services Have A “Heroic Expectation” of Themselves, and Perceive the Same Expectation of Their Performance From the Public.....</i>	37
d.	<i>Negative History and a Long Institutional Memory Among ERPs Can Color Cooperative Efforts.....</i>	38
e.	<i>Ownership Issues for Protection Districts Cause ERPs to React in a Territorial Manner Toward “Their” Citizens.</i>	38
J.	CONCLUSION: CHANGING INTER-ORGANIZATIONAL CULTURE	38
III.	THE EFFICACY OF IMTS AS A CATASTROPHIC INCIDENT MANAGEMENT STRATEGY	41
A.	THE COLLECTIVE AS A STRATEGIC RESPONSE.....	41
B.	THE NATIONAL STRATEGY FOR HOMELAND SECURITY	42
C.	NIMS AND IMTS	43
D.	STRATEGY IN ACADEMIC LITERATURE	44
E.	INTERORGANIZATIONAL COOPERATION.....	47
F.	ORGANIZATIONAL COLLECTIVITY.....	49
G.	TYPES OF COLLECTIVES	51
H.	STRUCTURAL DYNAMICS WITHIN AND BETWEEN ORGANIZATIONS	53
I.	IONS AS A POLITICAL ECONOMY (PE)	56
J.	ORGANIZATIONAL DOMAINS	57
K.	IMTS AS A COLLECTIVE STRATEGY.....	58
L.	ELEMENTS OF THE TURBULENT ENVIRONMENT.....	58
M.	CONCLUSION	59

IV.	THE UC ENVIRONMENT AND WORK TEAMS	61
A.	BOUNDING THE PROBLEM—UNIFIED COMMAND DYNAMICS..	61
B.	INTRODUCTION TO WORK TEAMS	63
C.	DEFINING WT CHARACTERISTICS	64
D.	FOCUS ON COLLABORATION.....	66
F.	CONCLUSION	70
V.	AN ADAPTED MODEL FOR IMT EFFECTIVENESS.....	71
A.	BLENDING WT AND IMT THEORY: HACKMAN’S MODEL	71
B.	ORGANIZATIONAL CONTEXT	73
C.	GROUP DESIGN.....	75
D.	GROUP SYNERGY.....	76
E.	CP CONFLICT FAULT TREE DIAGRAM (CPCFTD).....	78
VI.	CONCLUSION AND RECOMMENDATIONS.....	81
A.	SUMMARY QUESTIONS AND ARGUMENTS	81
1.	What is the Impact of Occupational and Cultural Differences among First Responders?	81
2.	How Comparable are Work Teams and IMTs/UCTs?	82
3.	To What Extent is the Body of Literature Pertaining to Work Teams Applicable to the Function of IMTs/UCTS During a CI?	82
B.	RECOMMENDATIONS.....	83
	LIST OF REFERENCES.....	85
	INITIAL DISTRIBUTION LIST	89

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF FIGURES

Figure 3.1.	National Vision	42
Figure 5.1.	Hackman's Model for Work Group Effectiveness (1988).....	72
Figure 5.2.	Hackman's Model of Work Group Effectiveness(Adapted)	77
Figure 5.3.	Command Post Conflict.....	80

THIS PAGE INTENTIONALLY LEFT BLANK

ACKNOWLEDGMENTS

The author wishes to gratefully acknowledge the excellent educational experience provided by the faculty and staff of the Naval Postgraduate School; and, the sponsorship of the Office of Domestic Preparedness. He also wishes to acknowledge his profound indebtedness to his family, without whose sacrifice and patient endurance, this degree milestone would still be merely a pipedream.

THIS PAGE INTENTIONALLY LEFT BLANK

LIST OF ACRONYMS

C&C	Command and Control
CI	Catastrophic Incident
CMA	Critical Mission Area
CP	Command Post
CPCFTD	Command Post Conflict Fault Tree Diagram
DHS	Department of Homeland Security
DoD	Department of Defense
EMS	Emergency Medical Services
ERP	Emergency Response Providers
FEMA	Federal Emergency Management Agency
FS	Fire Service
HS	Homeland Security
IAFC	International Association of Fire Chiefs
IC	Incident Commander
ICS	Incident Command System
IMT	Incident Management Team
IM	Incident Management
ION	Inter-organizational Network
IOR	Inter-organizational Relationship
LE	Law Enforcement
NFPA	National Fire Protection Agency
NIMS	National Incident Management System
NRP	National Response Plan
NS	National Security
NSHS	National Strategy for Homeland Security
OB	Organizational Behavior
O/O	Organizational/Occupational
RPDM	Recognition-Primed Decision Making

SMWT	Self-Managed Work Team
SDT	Self-Determined Team
UC	Unified Command
UCT	Unified Command Team
USFA	United States Fire Administration
USFS	United States Forest Service
WT	Work Team

I. THESIS INTRODUCTION

Three and one half years removed from the events of September 11, 2001 the threat of terrorism to the U.S. homeland continues, as does our national preparation for response to terrorism and other all-risk catastrophic incidents (CIs). Much work has been done by Federal, State and local authorities to prepare the nation for future CIs. The National Strategy for Homeland Security (NSHS) has been adopted, and implementation continues. One portion of the document pertaining to emergency response providers (ERPs) is the requirement for a commonly used, commonly trained organizational system and structure called the National Incident Management System (NIMS).

The March 1, 2004 release of the NIMS effectively mandated the use of Incident Management Teams (IMTs)¹ for multi-agency, multi-jurisdictional, and/or multi-sector incident response. IMT is the common name of a group of individuals that is formed from multiple agencies having jurisdiction to provide command and control (C&C) functions at emergency incidents. These teams have strong potential for improving complex incident management. However, the potential for interagency conflict threatens to derail effectual IMT functioning in the absence of team skills instruction as an integral portion of a national IMT training curriculum.

The NIMS-designated incident management structure is Unified Command² (UC) staffed by a local or regional IMT, appointed and trained to handle the special circumstances of a complex incident. UC, in the emergency response genre, implies an equal partnership among principals. It is formally defined by NIMS as:

An application of [the Incident Command System] used when there is more than one agency with incident jurisdiction or when incidents cross political jurisdictions. Agencies work together through the designated members of the UC, often the senior person from agencies and/or

¹ Some sources refer to “Unified Command Teams,” others to “Overhead Teams.” For purposes of this study, they and “Incident Management Teams” are somewhat interchangeable, the primary difference being that an IMT/OT is typically a subset of UCTs. IMTs are pre-designated and trained, whereas UCT is a de facto designation, and may be pre-designated or simply the set of personnel that happen to be on duty when a major incident occurs.

² The term “Unified Command” applies to multiple contexts and is used by several disciplines, including the U.S. Military. This thesis applies the term as it is commonly used within emergency response disciplines and in the context indicated by the National Incident Management System. In this context there is no single designated leader, rather the team is managed by a Command Group comprised of equals from multiple occupational disciplines.

disciplines participating in the UC, to establish a common set of objectives and strategies and a single [incident action plan].³

The organizational system to be used is the Incident Command System (ICS). To date (March, 2005) the training curriculum for the local/regional IMTs (called the “Training Roadmap”⁴) concentrates on technical skills and role responsibilities under ICS, and omits skills needed for healthy team dynamics.

A. THESIS PROBLEM AND SCOPE: CHAPTER SUMMARIES

This thesis presents the case that the training for IMTs needs to include more than merely technical skills (“What to do”), and that Department of Homeland Security (DHS) should formalize a portion of the curriculum to include team dynamics (“How to do it”). Further, unless trained in the “soft skills” required for successful team dynamics in the chaotic, high-stress UC environment, sufficient cultural differences and local agency history exist between ERPs to jeopardize IMT effectiveness.

DHS is responsible for developing an IMT curriculum. The current training roadmap appears to be a “low-hanging fruit” approach to developing the curriculum. That is, after the events of September 2001, there was an urgent need to make immediate progress in the area of management of CIs. The U.S. Forest Service (USFS) has, for many years, been the forerunner for developing a successful incident management model through the ICS. DHS could score an immediate “win” and get an incident management system in place quickly by adopting the successful USFS model wholesale, and mandating it nationwide. However, since the use of Overhead Teams trained by USFS were rarely interdisciplinary, “first blush” application of the IMT training that was initially appropriate in the immediate aftermath of 9/11 needs to be adapted to include a broader subject matter, including team dynamics and conflict resolution. An appropriate metaphor for the current situation is “New wine in old wineskins,” where the “new wine” is the current UC environment and the “old wineskins” represents the IMT “Training Roadmap” that has not adequately adapted to the new environment. Like the old wineskins, the potential for conflict that exists between agencies may cause a failure of the system if the training packaging is not improved and updated.

³ Department of Homeland Security, *National Incident Management System*, March 1, 2004, pg. 138.

⁴ <http://www.usfa.fema.gov/about/media/2004releases/011504.shtm>, U.S. Fire Administration, *Incident Management Team Training, IMT Roadmap*. Last accessed February 18, 2005.

This thesis argues that IMT training should include team dynamics. Further, that DHS need not “re-invent the wheel” when looking for sources of team dynamic theory, but need only look to and adapt the experience of business and academia. Over the past 25 years a variety of team configurations and types have been studied and field tested. Particularly pertinent to the IMT model are inter-organizational networks that combine members into Work Teams (WTs) from multiple disciplines and agencies. This thesis examines studies that shed light on the problems shared by WTs and IMTs, with particular emphasis on team effectiveness and managing conflict.

It is beyond the scope of this thesis and the qualifications of this writer to develop an actual IMT curriculum for team dynamics. However, based on 27 years experience in the fire service and 4 years in law enforcement, concurrent with more than 31 years as an Emergency Medical Technician and working closely with emergency medical services providers on both a response and administrative level, the writer proposes a model to serve as a beginning point from which a framework for the team dynamic portion of the curriculum could be drawn. The following paragraphs will describe the logical stream leading to this conclusion as it is developed in the succeeding chapters.

Chapter II of this thesis explores the under-girding role of occupational/organizational (O/O) culture in potential conflict between emergency services members of the IMT. By definition, an IMT should be composed of interagency players that are the major contributors of resources for mitigation of the CI, and/or have legal/jurisdictional authority and responsibility over the scene. The Homeland Security Act of 2002 defines ERPs as “...Federal, State and local emergency public safety, law enforcement, emergency response, emergency medical (including emergency hospital facilities), and related personnel, agencies and authorities.”⁵ This thesis considers a narrower set of ERPs: law enforcement (LE), fire services (FS), and emergency medical services (EMS).

The occupational diversity of the IMT is a primary source of its strength and one of its greatest challenges. Appelbaum, et al, state:

The paradox, however, is that the very act of bringing people from different backgrounds together may be the reason why they fail to achieve their objective. Conflict, inherent in the nature of teams...is a factor that

⁵ 6 U.S.C. 101(6), Homeland Security Act of 2002, Section 2(6).

can determine their success...[H]ow conflict is managed within the group can bring out the best or the worst of team-oriented organizations.⁶

Incorporating multiple players into the command structure complicates the team dynamic. Other potential complicating factors faced by IMTs are: 1) the situational urgency and complexity, 2) cultural clashes between agencies, 3) unclear domain/role activities, 4) lack of clear communication agreement, 5) lack of team “esprit de corps,” 6) crippling stress levels, and, 7) historical issues between responder agencies. Local ERPs typically have considerable history between agencies that potentially affects command post (CP) interactions. All of the foregoing factors contribute to a turbulent management environment requiring special strategy consideration with and IMT preparation.

“Conflict refers to a process of social interaction involving a struggle over claims to resources, power and status, beliefs, and other preferences and desires.”⁷ Chapter II lays a behavioral foundation for understanding the potential sources of conflict between local emergency response providers. These causes may lie dormant beneath the surface until unearthed by the extreme and complex circumstances and environment of a catastrophic incident. It is important to explore causal cultural issues between ERPs and talk about them openly before an incident occurs so that the team members can understand the views of others with whom they may later share joint command.

Chapter II begins with a literature review about the intra- and inter-organizational role of O/O culture. The chapter also examines the mythology that often develops between agencies that is passed inter-generationally between members and accepted as truth about other groups. Schemas are discussed as patterns of thought that shape ERP’s view of the others with whom they share mitigation responsibility. The chapter discusses the applicability of the metaphor of sibling rivalry to the relationship of the three disciplines within the ERP occupational family.

Finally, cultural issues for each occupation are discussed, as well as cultural issues common to all ERPs. An interdisciplinary command structure necessarily indicates a divergence of cultural world view. This study examines and applies the literature pertaining to occupational culture and mythology, and answers such questions as:

⁶ Appelbaum, Steven H., Abdallah, Chahrazad and Shapiro, Barbara T., *The Self-Directed Team: A Conflict Resolution Analysis, Team Performance Management*, MCB University Press, Vol. 5, Number 2, (1999) 60-77 (60).

⁷ Ibid, pg. 63.

- What qualities of LE, FS and EMS personnel affect their participation in an IMT positively or negatively?
- What qualities or traits are common to all ESPs that can contribute to CP conflict at a critical incident?

The purpose of Chapter II is to explore the potential of CP conflict as a function of the O/O cultural factors of ERPs, and how those factors may be mitigated through information exchange between IMT members in the training process (“cultural intelligence”). These conditions, if left unmitigated by “soft skills” training for commanders, can lead to conflict, confusion, and collapse of the C&C structure. By focusing on the potential cultural causes of conflict and understanding its sources, efforts can be concentrated on a training curriculum aimed at improving group effectiveness through conflict prevention.

Chapter III defines a CI and cites its uniqueness as a motivation for collective preparation and response by ERPs. It advances the argument for expanding the current IMT curriculum by addressing the theoretical base to support later application of Work Team theory to IMTs (Chapter IV). ERPs routinely respond to and mitigate emergency incidents on a daily basis, and typically operate with an implied understanding of each other’s role. This mode of relatively independent operation is possible—even effective—because the demands of routine responses do not typically cross the boundaries of occupational domain and agency authority.

While ad hoc teams have had success, the preferred method of preparation for a CI is through pre-incident team formation, functional specialty training and routine emergency exercising. A CI is very different in scope and involvement by ERPs, and often multiple sectors of government. Its response requirements are an interdisciplinary, highly coordinated force. Also, In light of the level of media and investigation scrutiny during and after the event, ERPs are sensitized to the demands of being in the national spotlight. A catastrophic incident is defined by the recently-released National Response Plan (NRP) as:

Any natural or man-made incident, including terrorism, which results in extraordinary levels of mass casualties, damage, or disruption severely affecting the population, infrastructure, environment, economy, national morale, and/or government functions. A catastrophic event could result in

sustained national impacts over a prolonged period of time; almost immediately exceeds resources normally available to State, local, tribal, and private-sector authorities in the impacted area; and significantly interrupts governmental operations and emergency services to such an extent that national security could be threatened. All CIs are incidents of national significance.⁸

A CI is an emergency event that has at least five distinguishing features:

- The incident meets the NRP definition of a CI;
- It presents a hazard to life safety, the environment, or to property;
- It requires the intervention/mitigation skills of multiple emergency services disciplines and/or jurisdictions to deal with a previous or on-going event, or series of events;
- It is resource intensive; and,
- It typically involves multiple operational periods, and a duration exceeding 24-hours.

Additionally, most CI's are inter-disciplinary both in resource commitment and management approach, require the response of multiple jurisdictions and layers of government, and often involve public and private resources for mitigation and recovery. Some are designated as having "national consequences" due to their implications for national security (e.g., the Murrah Federal Building bombing, or the Columbia Shuttle Disaster).⁹ These features create a uniquely turbulent environment that distinguishes a CI from a "routine" emergency. Chapter III discusses the significance of environmental turbulence (i.e., the demands of the business or operational environment) on the choice of management strategy.

Chapter III cites the NSHS, and particularly the National Vision for incident management as the regulational backdrop against which IMTs may be viewed. It explores the soundness of the federal mandate for ERPs to operate in UC as a strategy, given the potential problems extant. It is a fact that the NSHS and the NIMS require ERP cooperation. Chapter III presents the case from literature that the requirement is appropriate and potentially effective. Lessons are drawn from organizational theory

⁸ U.S. Department of Homeland Security, *National Response Plan*, Washington, D.C. (Nov., 2004), www.DHS.gov pp. 1-430 (63). Last accessed Feb. 18, 2005.

⁹ FEMA, *Responding to Incidents of National Consequences*, FA-282-May 2004 <http://www.usfa.fema.gov/downloads/pdf/publications/fa-282.pdf>. Last accessed February 18, 2005.

literature concerning employing a collective strategy—that is, the banding together of different interests to meet the demands of a turbulent environment. Inter-organizational cooperation is discussed in the context of motivation to cooperate, its collective form, and its structural dynamics.

The chapter concludes by tying theory to practice by discussing current contributing factors to the environmental turbulence into which IMTs have been inserted as a control strategy. Not all of the turbulence factors are related to a particular emergency scene response, but all are integral to preparation of an all-risk IMT. Many of the current turbulence factors cited apply to preparation rather than CI response. However, they all contribute to the need for ERPs to respond as a collective rather than individual preparation within each organization's or discipline's particular "stovepipe."

Chapter IV begins by further detailing the demands of the environment in addition to the complexity, turbulence and inter-disciplinary involvement cited in Chapter III. It also introduces the concept of Work Team (WT) Theory as a vehicle for collaboration within inter-organizational networks. Chapter IV also establishes the nexus between WTs and IMTs. The writer assumes that if substantial congruence can be demonstrated between WTs (for which much research material exists) and IMTs (for which little research material exists), then the principle of the Transitive Law of Equalities applies to some degree, and application can be made from WT research to IMT development. The purpose of making the connection is to establish the claim that WT research is applicable to, and appropriate for inclusion in the IMT curriculum.

IMTs are relative newcomers in the realm of team performance studies, and tend to be associated with occupations (ERPs) that have a more action-oriented bent than academic orientation. Therefore, the studies that have been done tend to concentrate on the technical and structural aspects of IMT function, and on selling the concept of UC to historically reluctant participants. They ignore the "soft skills" that fall outside of the black-and-white world of the roles and responsibilities of the ICS structure. Succinctly put, police officers, fire fighters and paramedics have been more interested in perfecting their incident management art in practice than studying it in the sociological laboratory. Where there is a wealth of WT sociological and anthropological studies, there is a dearth of literature applying the acquired knowledge to the IMT experience.

ERPs can benefit from the wealth of the academic research if it can be shown that the experience of WTs is substantially equivalent, or at least affirmatively related to, CI management and IMTs. Chapter IV establishes this equivalency. Although the objective focus and the operational environment of the two team types (WTs and IMTs) are clearly not identical, a comparison of the similarity of their basic function and *raison d'être* establishes a preponderance of evidence of their congruity.

There are a number of names of similar structures used in the literature included under the appellative heading of Work Teams. These include Self-Managed Work Teams (SMWTs), Self-Directed Teams (SDTs), Inter-Organizational Teams (IOTs) and Inter-Organizational Networks (IONs). WTs in this context refers to personnel who are assigned together, formed into a work unit, and given the responsibility and authority to make decisions regarding the work being carried out. They typically also jointly perform all of the management functions necessary for the unity, and often perform tasks formerly reserved for managers.¹⁰ These groups are cross-functional when drawn from different organizations, disciplines or specialties. Members are typically accountable to one another for their individual and team performance. Kirkman and Shapiro list the responsibility of SMWTs as:

(1) they manage themselves (e.g., plan, organize, control, staff and monitor); (2) they assign jobs to members (decide on who works on what, where and when); (3) they plan and schedule work (e.g., control the starting and ending times, the pace of the work, and goal-setting); (4) they make production- or service-related decisions (e.g., they are responsible for inventory, quality control decisions and work stoppage); and, (5) they take action to remedy problems (e.g., address quality issues, customer service needs, and member discipline and rewards). Reported WT benefits include the capacity for the team to manage and lead itself (i.e., less managerial overhead); the initiative, sense of responsibility, creativity, and problem solving that comes from within the team; and the team's unique self-reliance.¹¹

¹⁰ Thoms, Peg; Moore, Kirsten S.; Scott, Kimberly S., The Relationship Between Self-Efficacy for Participating in Self-Managed Work Groups and the Big Five Personality Dimensions, *Journal of Organizations Behavior*, Vol. 17, No. 4 (Jul., 1966) 349-362 (350).

¹¹ Kirkman, Bradley L.; Shapiro, Debra L.; The Impact of Cultural Values on Employee Resistance to Teams: Toward a Model of Globalized Self-Managing Work Team Effectiveness; *The Academy of Management Review*, Vol. 22, No. 3 (Jul., 1997), 730-757 (731).

Chapter IV also emphasizes the topic of collaboration as an essential process/skill for any group where joint decision-making is important. Included are step-by-step pre-incident and post-occurrence processes, the essence of which are suggested for inclusion in the IMT formation and training in order to relieve CP stress should an incident occur. As stated, the training emphasis for IMTs has been technical proficiency in the task/role responsibilities of ICS. This thesis argues that skills and characteristics typically associated with WT Theory are equally essential to effective IMT functioning, and that by omitting such study topics, the curriculum is incomplete. In order to present a complete curriculum, the IMT “Training Roadmap” currently advertised by the DHS/FEMA/USFA must be supplemented to include team skills. Chapter IV makes the case that pre-incident and post-occurrence collaboration steps can best be accomplished by incorporation into IMT training rather than leaving these essential activities to chance with an ad hoc team.

Chapter V applies the WT/IMT issues in terms of group effectiveness. This thesis assumes that IMT effectiveness is highly desirable given that emergency responders’ and the collective safety of victims and bystanders are often affected by the decisions made by the command team. Chapter V discusses one published model’s criteria for effective group functioning (Hackman’s Model for Work Group Effectiveness), several criterion of which depend on the relational dynamics of the group.

One method for determining which team dynamic skill areas the training curriculum for IMTs should include is to deconstruct the problem of the potential conflict established in Chapter II. This is done in Chapter V as a Fault Tree Diagram to break the problem into contributing factors as Organizational, Individual and Situational Elements. These are further subdivided into more specific categories until an actionable level is reached. The exercise significance is to identify what conflict elements can be prevented through team “soft skills” training, which can be prevented through personnel screening, and over which situational elements the IMT can exercise little control except to understand the difficulties and practice/exercise under realistic conditions.

In this context, the term “soft skills” includes certain organizational and individual elements that contribute to team dynamics, as opposed to the “hard skills” associated with the pure technical duties of an ICS role. Some examples include

collaboration, consensus decision making, power sharing, social capital, trust, locus of control, and information sharing style. This thesis asserts that negative technical and individual factors can be overcome by a complete IMT training curriculum that includes training in topics revealed by the business literature to be essential for mitigating inter-organizational conflict.

After a brief initial summary, Chapter VI reviews major themes of the thesis by answering three questions that constitute threads that run throughout the work. These questions are:

- 1) What is the impact of the occupational and cultural differences among first responders?
- 2) Are WTs and IMTs comparable?
- 3) To what extent is the body of knowledge pertaining to WTs applicable to the function of IMTs during a CI?

From the answer to these questions, ten recommendations concerning the formation, training and use of IMTs are made, as well as recommendations for further research.

B. A SHORT INCIDENT COMMAND SYSTEM PRIMER

Intended to cause widespread chaos and life-loss, terrorism (and other CIs) must be approached with a common planning template in order to limit the effects of the attack and regain scene control as quickly as practical. The FS developed a large-scale incident management system in response to wildland fire incidents in the early 1970's. The system is widely recognized nationally as a viable system for developing a command organization, organizing resources, and providing a skeletal framework for strategy development. Since very early in the life of ICS the U.S. Forest Service has been working to perfect the system in a wildland (and more recently, an all-risk) setting. They have become—by design and by experience—the recognized experts of the system.

Other branches of the U.S. fire service followed closely behind wildland and became early adopters. The experience has worked expertise in routine operation of the fire service, and has led to its inordinate influence in the incident management realm. This influence causes discomfort for some in other ERP disciplines, who value C&C as a system, but are dubious of a universal management system application whose roots are so completely within the purview of the FS. ICS was adopted by most FS agencies, and by extension, EMS agencies (because many EMS providers are part of the local fire

department). However, LE generally resisted ICS, either actively by refusing to participate or passively by not taking action. Since 9/11, the majority of police agencies can be charitably characterized as “late adopters,” likely because of occupational culture differences between LE and other ERPs that made responding within a multi-disciplinary structure unpalatable to them (greater detail provided in Chapter II).

Pockets of resistance from LE agencies with respect to current Federal NIMS/ICS mandates still exist, even in the context of clear legal authority and the presidential mandate directing the DHS to act. It is logical to extrapolate that where resistance to ICS still exists, it would transfer to resistance to ad hoc UC on the incident scene. This thesis argues that resistance may be overcome by participation in a regional IMT in the presence of teambuilding activities.

ICS was developed over a period of years based on the merger of fire service wildland fire campaign experience and military theory application. FS managers, having experienced the chaos of large emergency incidents, concluded that the most applicable model from which theory could be adapted was that of waging war; coordination of personnel and resources on such a scale was most analogous to battle management.

ICS developers identified five primary areas of concern as those consistently faced by ranking officers at the incident scene: 1) Command, 2) Operations, 3) Planning, 4) Logistics, and, 5) Finance. Command priorities were further identified and subdivided to include liaison activities, public information dissemination, and incident safety management. These elements were organized and codified in an “org chart” format, with specific “area of responsibility” expectations and task descriptions. The intervening 30-plus years of complex-incident management experience has tweaked, but largely validated the thought processes of the developers. One of the more recent developments/adaptations of the system was the inclusion of UC as the expected norm for complex incidents. **This adaptation is a primary driver of the current need for IMTs.**

UC formalizes a process by which all of the agencies and jurisdictions with “skin in the game” have a voice in managing the incident. It implies an equal partnership among principals, and is defined by NIMS as:

An application of ICS used when there is more than one agency with...jurisdiction or when incidents cross political jurisdictions. Agencies work together through the designated members of the UC, often the senior

person from agencies and/or disciplines...to establish a common set of objectives and strategies and a single [incident action plan].¹²

An important aspect of UCT/IMT formation is that agencies frequently have legal or ethical mandates that they may not electively lay down. For example, a complex incident (such as the crash of an airplane) may involve many and varied strategic priorities for which different agencies have jurisdiction—the FS owns the domains of hazardous materials, fire extinguishment, and rescue of trapped persons. EMS is charged by law to care for the medical welfare of injured persons, while LE must document and investigate deaths while controlling the environment to ensure the safety of the non-involved public.

C. NEED FOR THIS STUDY

On March 1, 2004 the Department of Homeland Security (DHS) released the NIMS document required by Homeland Security Presidential Directive 5 (HSPD 5) issued by President Bush on February 28, 2003. It effectively mandates¹³ the standardization of incident management in all risk applications:

HSPD 5 requires all Federal departments and agencies to adopt the NIMS and to use it in their individual domestic incident management, and emergency prevention, preparedness, response, recovery, and mitigation programs and activities, as well as in support of those actions taken to assist State, local, and tribal officials; to the emergency response community; and to the private sector.¹⁴

NIMS is designed to have a standardizing effect on incident management activities nationwide. The system is best used when applied as a standardized approach to resource ordering, typing, deployment, and supervision:

This system provides a consistent nationwide **template** to enable Federal, State, and local and tribal governments and private sector and non-governmental organizations to work together effectively to prepare for, prevent, respond to, and recover from domestic incidents, regardless of cause, size, or complexity, including acts of catastrophic terrorism.¹⁵

¹² U.S. Department of Homeland Security, *National Incident Management System*, March 1, 2004, pg. 138.

¹³ Local agencies are not technically required to adopt NIMS unless they wish to receive Federal funding.

¹⁴ Ridge, Tom, Transmittal Memorandum for Cabinet Secretaries, et al; *National Incident Management System*, U.S. Department of Homeland Security, March 1, 2004.

¹⁵ U.S. Department of Homeland Security, *National Incident Management System*, March 1, 2004, pg. ix. [emphasis added].

The system is also designed to serve as a bridge between disparate agencies, jurisdictions, disciplines, levels of government, and sectors that could conceivably be involved in incident management. Cultural differences reside innocuously embedded within organizations until a critical incident brings responders in close proximity under conditions of stress. By emphasizing commonalities in approach and understanding, functional differences are minimized and blended into a concerted effort by a commonly-understood and trained management schema. The NIMS defines its purpose as:

To provide for interoperability and compatibility among Federal, State, and local capabilities, the NIMS will include a core set of concepts, principles, terminology, and technologies covering the incident command system; multiagency [sic] coordination system; unified command; training; identification and management of resources...; qualifications and certification; and the collection, tracking, and reporting of incident information and incident resources.¹⁶

However, functional differences are only half of the story. Systems do not build bridges between agencies—relationships do. Potential IMT problems are primarily the result of the team nature of UC (again, made mandatory by Federal decree through the NIMS), particularly those concomitant with occupational cultural clashes, group decision-making dynamics or jurisdictional disputes between equal partners. These problems may manifest as a lack of collaborative skills; and/or they may manifest as organizational or occupational cultural barriers between disciplines (e.g., fire service vs. law enforcement), between levels of government (e.g., Federal vs. local), or even between public and private interests (e.g., National Transportation Safety Board vs. the airlines industry).

After Action Reports and anecdotal experience from past CIs indicate that there have been disagreements, competing strategy and goals, competing tactics, power struggles and other forms of conflict within the team managing the incident.¹⁷ Whatever “pecking order” exists day-to-day among local emergency response agencies must be set aside to jointly manage a CI. But setting aside daily attitudes and thought processes—the schemas that form the substance of organizational culture—is not easily done under

¹⁶ Ibid., pp. 1-2 [emphasis added].

¹⁷ On the reported problems between NYPD and FDNY commanders at the World Trade Center attack see *The 9/11 Commission Report. Final Report on the National Commission on Terrorist Attacks Upon the United States* (New York: W.W. Norton, 2004), pages 552-553, footnotes 180 and 208.

neurasthenic pressures extant at a CI. Yet the management standard for CIs in the post-9/11 world is to operate in UC—a multi-agency, multi-jurisdictional structure that includes major response agencies with legal authority and responsibility for the incident. Thus, the national call has been issued for regional IMTs formed at the jurisdictions' relative pre-event leisure.

The existing body of literature for WTs can be applied to training curriculum development to help IMT members manage conflict. Given the difficulty of cooperation in a high stress, competitive environment, it is vital that a portion of IMT preparation be devoted to understanding one another's occupational culture, and education and skill in collaborative processes.

Although individual ERP disciplines are experienced at managing emergencies, the UC environment required by Federal mandate is relatively new. The NIMS has formalized a structured, shared working relationship between ERPs where there has in the past been individual agencies/disciplines accomplishing their mission in proximity to others. The new arrangement has changed the relational dynamic between public safety partners—whereas formally they merely shared proximal space, now they must share C&C, and responsibility. The challenges and potential problems for the command team are myriad. This thesis asserts that the challenges to IMT effectiveness must be discussed and solved in the classroom, or they will be manifested on the incident scene.

II. EMERGENCY RESPONSE PROVIDERS—STRANGE BEDFELLOWS, AND A COLLISION OF CULTURAL WORLDS

This chapter examines factors of organizational and occupational culture as a potential cause of CP conflict affecting working relationships between ERPs. First responders have developed historically- and occupationally-based shared schemas for 1) Mentally categorizing their “real world” experience with other public safety agencies; 2) Filtering perceptions of jointly-experienced events; and, 3) Interpreting meaning from interactions. These schemas can be grouped as cultural norms perpetuated generationally from seasoned officers to raw recruits, and shared by personnel of all experience levels throughout the departmental chain of command as the correct way to view their work experience and to interact with other ERPs.

While addressing functional differences by providing structural standardization, NIMS does not address O/O cultural differences—nor should it. Such a topic would be inappropriate for inclusion in a national standard document. These differences reside innocuously—even playfully—embedded within their parent organizations until a critical incident brings responders into a proximal working relationship sharing C&C responsibility under conditions of stress. There is, however, an appropriate forum in which to address occupational cultural differences—pre-incident training activities where “inter-cultural intelligence”¹⁸ should be a curriculum topic, and where a cultural knowledge base, understanding and skills for handling conflict is built into the IMT “tool chest.” While actual training curriculum additions are beyond the scope of this thesis, the cultural differences discussed here can provide a basis for what should be included in the training program. The nature, breadth and potential ramifications of the cultural clash as an antecedent condition affecting IMT effectiveness is the topic of this chapter.

A. OCCUPATIONAL/ORGANIZATIONAL CULTURE IN LITERATURE

The study of organizational life falls mainly within the purview of Sociology. Ouichi and Wilkins, in a comprehensive culture literature review said:

We offer the view that the contemporary study of organizational culture may best be understood as a continuation of the mainline of organizational sociology, which has always focused on the normative bases and the

¹⁸ Intelligence here is used in the sense of acuity for, or discernment of a dynamic undercurrent of human interaction based on shared schemas—not unlike “emotional intelligence” from management literature.

shared understandings that, through subtle and complex expression, regulate social life in organizations.¹⁹

And,

[T]he contemporary study of organizational culture is perhaps best understood as only the latest turn in the struggle between explicit and rational views of the organization on the one hand and implicit, non-rational views of the organization on the other. This tension has long been a central feature in the sociology of organizations...²⁰

The study of culture has gained an active academic and pop-management following since the early 1980's. This fascination may have its roots in the push by management practitioners and theorists to fix the malaise of American workers as compared to their Japanese counterparts during this period. Those corporations experiencing the problems of falling productivity and profitability cried out to academia for a theoretical base from which to understand why some corporations were successful while others were not. The academic microscope was trained on organizational life in an effort to understand how the internal environment is formed, maintained and changed:

...[T]hese studies attempt to describe the purpose and function of patterns of belief, language, and symbol in organizations. They tend to present these elements of organizational culture as necessary to order and stability, and to regard them as resistant to explicit attempts at manipulation, owing to their natural or evolutionary character. Rarely, however, do they attempt to explain the relationship between an organizations internal culture and its larger cultural or socioeconomic environment.²¹

The study of O/O culture has branched into several major themes in the past twenty-five years enroute to its mission to “unfreeze-change-refreeze” the culture of the workplace. Ouichi and Wilkins review four variables that affect the viewpoints of those who seek to understand the ideology of the organization:

The macroanalytic theories have in common an attempt to understand the culture of a whole group or a subgroup, or the conditions under which the group and its cultures or subcultures develop. The microanalytic theories present culture as something that resides within each individual, and can be understood through the cognitive processes of sense-making, learning, and causal attribution, or by probing the unconscious mind.²²

¹⁹ Ouichi, William G.; Wilkins, Alan L., *Organizational Culture, The Annual Review of Sociology*, Vol. 11 (1985), pp. 457-483 (458).

²⁰ Ibid, pg. 462.

²¹ Ibid, pg. 472.

²² Ibid, Pg. 471 (emphasis added).

And,

...[T]hose who prefer to study organizational culture as a dependent variable...**assert that critical features of organizational culture may be systematically altered by a determined management.** Those who view culture as an independent variable...seek to explicate the variety of forms through which the subtle and implicit features of organization influence the thoughts, feelings and behavior of individual participants.²³

In this thesis I argue both the micro- and macro-analytic perspectives: that culture is a dependant variable (that can be changed with determined effort), and an independent variable that influences the thoughts and attitudes of participants—thus the need to address O/O culture differences in IMT training. According to Schein, culture is shared on the surface, the subconscious and unconscious level within the organization, and exists to some degree on all of three—but in unequally weighted importance and prominence.²⁴ On the surface and most prominent are artifacts. These are visible, tangible, and audible results of activity grounded in values and assumptions. Artifacts are the evidence that proves the culture.

Underneath artifacts is the second level—values. These are the social principles, philosophies, goals and standards considered to have intrinsic worth. Values are not the essence of culture either, but are more closely related than artifacts. Values operate on a semi-conscious level and typically by—tacit or explicit—agreement within the group or subgroup. One function of values is to serve as a point of attachment or identification between the individual and the others in the group.

The bedrock level of culture is a system of basic assumptions. Assumptions represent the taken-for-granted (or taken-for-agreement) beliefs about reality and human nature. They are the essence of culture because they are the foundation on which the other levels are constructed. But even bedrock has component raw material—the raw material out of which assumptions are formed are the collective schemas of the workforce. Merriam-Webster defines a schema as “[A] mental codification of experience that includes a particular organized way of perceiving cognitively and responding to a complex situation or set of stimuli.”²⁵

²³ Ibid, Pg. 478 (emphasis added).

²⁴ Hatch, M.J., The Dynamics of Organizational Culture, *The Academy of Management Review*, Vol. 18, No. 4 (Oct., 1993), pp. 657-693 (659).

²⁵ <http://www.m-w.com/cgi-bin/dictionary?book=Dictionary&va=schema&x=17&y=14>. Last accessed 03/06/05.

Buried deeply within the catacombs of attitudes and self-taught truths, and typically operating below the radar of conscious thought and action, schemas and assumptions form the cultural construct on which values are built and artifacts are hung as decoration. In organizational life, they are as real as the physical plant; as binding as the articles of incorporation; as much a determining factor of goal achievement as the skills and talents of the workforce; and are as inheritable as real property between succeeding generations of workers.

B. THE DEFINITION AND PURPOSE OF CULTURE

Edgar H. Schein is a leading theorist on the concept of O/O culture. He describes the term as broad, referring to many aspects of organizational life and learning. But, for accuracy the term should be reserved for a deep level of basic assumptions, beliefs and values that are shared by an organization's members:

A pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems.²⁶

And,

...[T]he set of shared, taken-for-granted implicit assumptions that a group holds and that determines how it perceives, thinks about, and reacts to its various environments...Norms become a fairly visible manifestation of these assumptions, but it is important to remember that behind the norms lies this deeper taken-for-granted set of assumptions that most members of a culture never question or examine. The members of a culture are not even aware of their own culture until they encounter a different one.²⁷

Culture serves a fundamental and essential purpose in organizational life. It forms the construct by which the individual and the collective make sense out of their group reality.

When a solution to a problem works repeatedly, it comes to be taken for granted. What was once hypothesis...comes gradually to be taken as reality...Basic assumptions...have been so taken for granted that one finds little variation within a cultural unit...What I am calling basic assumptions are congruent with what Argyris has identified as "theories in use," the

²⁶ Schein, E.H., Organizational Culture and Leadership (2nd Edit.). San Francisco: Josey-Bass, 1992, pg. 12.

²⁷ Schein, E.H., Culture, the Missing Concept in Organizational Studies, *Administrative Science Quarterly*, Vol. 41, No. 2, 40th Anniversary issue (Jun., 1996), pp. 229-240 (236).

implicit assumptions that actually guide behavior, that tell group members how to perceive, think about, and feel about things.²⁸

These implicit assumptions are composed of both individual and shared schemas, and are the “building blocks”—the essence—of culture.

...[S]chema's refer to the dynamic, cognitive knowledge structures regarding specific concepts, entities, and events used by individuals to encode and represent incoming information...Schemas are... conceptualized as subjective theories derived from one's experiences about how the world operates.²⁹

Schemas improve efficiency by providing a template for day-to-day behavior and decision-making. By establishing cultural routines, time and energy are saved for more challenging aspects of life:

Schemas refer to the cognitive structure in which an individual's knowledge is retained and organized. In addition to knowledge repositories, schemas also direct information acquisition and processing. They guide answering the questions central to sensemaking [sic] efforts: “Who or What is it?”; “What are its implications?”; “What does it mean?” and “How should I respond?”...The conscious and unconscious operation of these schemas in the actual process of making sense of operational stimuli is framed within a schema-directed, intra-psychic, mental dialogue perspective on social cognition.”³⁰

And,

Taylor and Crocker have identified seven functions of schemas: 1) Provide a structure against which experience is mapped; 2) Direct information coding and retrieval from memory; 3) Affect information processing efficiency and speed; 4) Guide filling gaps in available information; 5) Provide templates for problem solving; 6) Facilitate the evaluation of experience; and 7) Facilitate anticipations of the future, goal setting, planning and goal execution.”³¹

Schein argues that culture is the sum of what individuals have learned of their organizational world, based on (a) the observed consequences of past actions, and (b) the success or failure of attempts to cope with needs for anxiety avoidance.³² Harris postulates four ways schemas impact individual perception/ interaction with culture:

²⁸ Harris, S.G., Organizational Culture and Individual Sensemaking, *Organization Science*, Vol. 5, No. 3 (Aug., 1994) pp. 309-321 (317).

²⁹ Ibid, pg. 310.

³⁰ Ibid, pg. 309.

³¹ Ibid, pg. 310.

³² Schein, E.H., Culture, the Missing Concept in Organizational Studies, pg. 472.

- 1) Individual-level manifestations and experiences of organizational culture are revealed in the operation of a patterned system of organization-specific schemas held by organizational members;
- 2) Individual's organization-specific schemas are the repository of cultural knowledge and meanings, and the consensual sensemaking [sic] characteristics of the culture;
- 3) The activation and interaction of these schemas in the social context of the organization creates the cultural experience for the individual; and,
- 4) This perspective focuses the sensemaking [sic] phenomena at the individual level yet connects them back into the sociocultural [sic] reality of the organization.³³

Culture is the silent, unseen teacher continuously working, exerting influence and not-so-subtle pressure on the organization to conform to behavioral standards. Without culture and schemas to guide behavior and decision-making, organizations would have to start each day fresh with a clean slate of conduct expectations, and new goals and understandings about their role and place in the world. Harris tells us that "...[I]ndividuals' intentions to behave are based on a reconciliation of their personal attitudes with the perceived normative expectations of contextually relevant others."³⁴

C. CULTURE AS A FORCE ACROSS OCCUPATIONS

Occupational culture has the same characteristics of organizational culture but shared across an occupational community. Van Maanen and Barley define an occupational community as:

...[A] group of people who consider themselves to be engaged in the same sort of work; whose identity is drawn from the work; who share with one another a set of values, norms and perspectives that apply to but extend beyond work related matters; and whose social relationships meld work and leisure...Occupational communities are seen to create and sustain relatively unique work cultures consisting of, among other things, task rituals, standards for proper and improper behavior, work codes surrounding relatively routine practices, and, for the membership at least, compelling logic attesting to the logic and value of these rituals, standards and codes.³⁵

It is intuitively apparent how culture can be shared readily within a particular organization, but less apparent how cultural similarities develop across an entire

³³ Harris, S.G., *Organizational Culture and Individual Sensemaking*, pg. 310.

³⁴ Ibid, pg. 316.

³⁵ Van Maanen, J. and Barley, S.R., *Occupational Communities: Culture and Control in Organizations, Research in Organizational Behavior*, Vol. 6, pp. 287-365 (287).

occupational construct separated by distance and locally-shared experience. The answer lies at least in part in the functional commonality of members of various occupations and the similarity of social response by the community to each. For example, police experience interactions, citizen responses, and problems in City X; police in City Y tend to experience the same types of interactions, responses and problems as they perform their duty routine. Therefore, they come to view themselves and their role similarly, even if they are significantly different in the minutiae. The same principle is replicated naturally across the nation and among all members of emergency response agencies.

Individuals' schemas become similar as a result of shared experience and shared exposure to social cues regarding others' construction of reality. Since schemas are summaries of experiential knowledge, sharing experiential space and time and the challenges posed by communication, interacting to solve common problems facilitates and encourages the development of similar schemas...³⁶

The primary role of each ERP discipline does not vary greatly with geography, even accounting for individual departmental features such as enhanced services, city size, resource levels, population demographics, community age, or climatic differences.

Schemas describe a range of information that individuals use to make sense out of organizational life, but they may also form to guide interorganizational relationships. The above findings of Harris apply within occupations by reason of member's frequent contact. But also to the degree that the individual or groups interact in interagency settings, schemas across occupational boundaries may also begin to resemble one another, and result in a facilitated work relationship.

Where workers have a dearth of specific experience for a new, rare and/or unexpected situations there may be no schema in place to guide decision making. CIs are rare events—typically a “once in a career” response. Harris cites the findings of Markus and Zajonc about the triggering effect of schemas. “Some schemas, particularly context-specific schemas and event schemas are likely to be influential in cuing other schemas.”³⁷ Since command officers are unlikely to have specific schemas for responding to the UC environment, it is likely that their collaborative response will be triggered by day-to-day schemas, making it vital that inter-occupational relationships be positive.

³⁶ Harris, S.G., *Organizational Culture and Individual Sensemaking*, pg. 313.

³⁷ Ibid, pg. 314.

It is important to understand that schema formation and sharing is a completely natural process—we do it as effortlessly as breathing—because the social order advantages afforded by schema operation are significant:

How do an individual's schemas come to resemble those of other organization members? In part, the answer rests on realizing that all members of the community have a vested interest in the establishment of common meanings so that predictable social order is possible. Individuals value the ability to predict and understand their circumstances that a shared conception of reality makes possible.³⁸

Harris' point is made more efficacious considering the turbulence of a CI's environment. The normal level of psychological and social comfort drawn from order and that which is familiar is enhanced in the chaos of the catastrophe.

Nationwide networks for interdepartmental communication further contribute to shared schemas, as does the proliferation of training opportunities and the value placed on nationally standardized procedures. The networking process of conferences and seminars constitute another way to ensure interorganizational cross-pollination of culture within an occupation. Problem-solving templates are an important element of culture, and these mass gatherings are typically designed to propagate successful solution sets.

D. THE INCULCATION OF CULTURE AT HIGH RANKS

As stated previously, one function of schemas and culture is to guide successful achievement of shared goals. Therefore, it follows that those who are most successful at internalizing the culture will also be those members that are promoted to higher ranking positions because of their goal achievement acumen. If true, then it also follows that the Police, Fire and EMS Chief Officers are the occupational representatives in whom the culture operates the strongest, is most entrenched, and is most relied upon for situational sense-making.³⁹ These tenured officers are also the members from whom command leadership is expected, and in whom such authority has been vested. The author's career experience confirms the foregoing principles—command officers embody the O/O culture more than other members, in part because they are the ones with the most power to change it. Since the systems for defining and raising up leadership themselves

³⁸ Ibid, pg. 313.

³⁹ This is the principle demonstrated by such common phrases as "He/She is a cop's cop" or "...a Chief's Chief" when referring to the department head or his/her immediate subordinates.

promote internal schemas, it is readily apparent why the levels of culturally-induced bluster at the CP can be so high.

In these individuals, the positive characteristic of having a highly assimilated level of O/O culture (which facilitates transaction of power in the administrative arena) can act negatively to hinder an officer's ability to share command responsibility in the CI arena. Commanders tend to be aggressive, highly skilled, highly motivated, and high achievers. When several high-ranking officers from different emergency services cultures gather in one CP with joint responsibility for managing an incident, their cultural view of reality tends to cause them to place different priorities on goal and task accomplishment.

Command officers have a well-developed sense of their own culture, a variety of experience and considerable skills for applying its lessons within the narrower focus of single agency response. But CIs, as noted earlier, are by definition multi-agency and/or multi-jurisdictional—the foremost characteristic of a CI is that its resource demands outstrip the capability of local response. At these incidents, if command officers fail to make the shift effectively to a UC mindset, conflict is virtually unavoidable.

E. HOW MYTH CONTRIBUTES TO CULTURE

A myth is the customary vehicle—a story—by which that which is known individually and collectively is transferred to others. Myth constitutes the individuals' subjective reality, and the group's collective reality—the way our environment is perceived and described. Jackson and Carter tell us that myth is a mechanism for seeking a homeostatic equilibrium of understanding of the surrounding world, the need for which equilibrium is a primeval drive. "[T]he functional role of myth in simplifying the environment, and furthermore, that this simplifying procedure is a prerequisite of man's ability to understand given his limited capacity to process information."⁴⁰ Myths reduce complex concepts to a few transmutable and transmittable explanations.

For the purposes of this paper, the role of myth is bifurcated, the first being its intra-occupational function of creating, transmitting and maintaining culture within the organization. In this role, mythology codifies and attenuates reality by defining "bodies of social doctrine which validate forms of behavior and prescribed values."⁴¹

⁴⁰ Jackson, N.V., and Carter, P. The Attenuating Function of Myth in Human Understanding, *Human Relations*, Vol. 37, No. 7, pg. 527.

⁴¹ Ibid, pg. 516.

Myth is an esthetic device for bringing the imaginary but powerful world of preternatural forces into a manageable collaboration with the objective (i.e., experienced) facts of life in such a way as to excite a sense of reality amenable to both the unconscious passions and the conscious mind.⁴²

Jackson and Carter report the findings of Bailey that myths act within individuals and groups as “...cognitive maps exercising some control over what may be known and how what is known may be understood”; and Bruner’s complementary understanding that myth “serves in the place of or as a filter for experience.”⁴³ This function gathers into one cultural basket who “we” are and what “we” do. The focus is internal and serves the primary function of locating and delineating the individual within the masses.

The second bifurcated role of myth in our context is to explain “our” culture compared and contrasted to “theirs,” especially in relation to overlapping interests and competition for attention and resources—our “place” in public service’s “community of heroes.” ERPs as a family of occupations share a societal mythology aggregated as the “heroic ideal” (for example, NYPD officers have long had held the nickname “New York’s Finest”, and FDNY fire fighters are known as “New York’s Bravest”). In return for their real or perceived sacrifices, the community idealizes ERP members. In addition to community standing, the heroic ideal conveys a spectrum of real and ethereal benefits (besides the bi-weekly paycheck) that extends from enjoyment of the public trust to the occasional free cup of coffee or half-priced meal.

With so much at stake, there exists a constant struggle among fire, police and EMS members to understand and enlarge their place in the Hero Story, in part by explaining and diminishing the role of their ERP competitors. Leach tells us that myth is the vehicle by which we “...describe the beliefs of others with which we do not agree, but which our disagreement does not invalidate.”⁴⁴ The constant competition of ERPs for primacy with respect to attention and resources spawn mythological explanations for each other’s role within the Story. Just as siblings claw and climb over one another, and stand on each other’s shoulders to attract the attention of pater patriae, so do police officers, fire fighters and paramedics engage in verbal clawing in the form of myth-

⁴² Ibid, pg. 516.

⁴³ Ibid, pg. 517.

⁴⁴ Ibid, pg. 518.

spinning. By demeaning and degrading the other's role in public service—even in jest—each service attempts to establish their own schematic of superiority over the others.

F. THE SIBLING CONNECTION

Schemas filter and interpret reality; myths explain it; and, culture is the summation of perceived truth about reality. Occupational communities share cultural characteristics. Certain occupations, though distinct, share sufficient general characteristics to be considered in the same family of jobs (e.g., plumbers, carpenters, electricians and painters are within the “building trades” family; physicians, nurses, medical technicians, and physical therapists are members of the medical profession; the media family includes television, newspaper, radio and internet). Police officers, fire fighters and paramedics share a relationship as siblings within the “public safety” family. The comparison as siblings is appropriate because of the frequency of contact that the three primary public service agencies have with one another, their reporting relationship with typically the same supervising authority, the competition between the agencies for scarce resources, and the constant vying for media and public attention.

Emergency services generally have in common the protection and welfare of the public. They principally differ from other organizations concerned with public welfare in the immediacy of the need for their intervention, the degree of danger faced in the performance of duty, the “24/7” nature of their work, and the interdependence and coordination required between them for each to reach its goals. These factors form a powerful connection—bloodline, if you will—that is analogous to a familial relationship.

Local ERPs are typically accountable to the same central authority—analogue to paternity. The city seal is the family crest, and the family checking account is the city's general fund. Each sibling usually has a “paper route” (enterprise funds from fees, permits, fines, etc.) to supplement their unequal “allowance.” Each must pitch to the paternal body their own needs against the “fixed pie” city resources. Besides going head-to-head with one another, they must compete against a litany of cousins, uncles and other weird relatives (e.g., libraries, parks, public works, etc.) who also want family resources.

Birth order in the public safety family, as in regular families, is important in determining the power and standing of each sibling. LE, because the departments are older, larger, control more resources, and because of the nature of the authority that it

wields takes the role of older brother.⁴⁵ EMS in its present professional state is only about 30 years old. Even in those cities where the emergency medical mission is not a separate service, but rather a division within the FS, the mission in its current professional form is young, relatively speaking. Compared to the much older LE and FS, EMS is the “baby of the family.” The FS is left in the unenviable position of middle child. In the sibling culture it is natural for the middle and older brothers to have an “understanding” of each other before the youngest arrives, and for the new child to be viewed as intruder to the former order. This understanding potentially makes it difficult for the younger to break in, or feel part of the team of brothers.

When it is understood from where an occupation extracts its core values, the mechanics of relating to members of that occupation become more understandable. LE and FS have long understood the quasi-military aspects of their culture, and have shared a common sense of responsibility for protection of the community for 150+ years. EMS has difficulty because of its relatively recent birth and development (circa 1970-75 for most departments), and because its genesis is from a hospital-based discipline (emergency medicine) that was adapted for street-level application. There are few points of interface between the academic world of medicine and the street-wise police officer and fire fighter. It is as if the older and the middle brothers have formed a common bond in misunderstanding and disrespecting their mutual sibling.

Many situations in families potentially result in repressed or active antisocial sentiments. Just as self-comparisons between brothers often results in resentment, comparisons between departments over perceptions of treatment also cause resentment. Differences in pay, conditions of work, perceived preferred treatment, negotiated contracts, or any other situation where members perceive favoritism often results in inter-group jealousy. Envy and jealousy further sensitize all three to even more subtle inequalities, potentially resulting in a high background level of tension between individual members. A self-perpetuating cycle may be initiated that can result in an expectation of conflict, public displays of ERP conflict, and prolonged competitive “wars” that are bad for citizens, and ultimately unsafe for responders.

⁴⁵ The author grew up as the youngest among three brothers. Nothing is implied by my use of the male gender except that it is what I know best. I am confident that the same analogies could be drawn among sisters!

G. MYTHS AND FOLKLORE FROM THE LOCKER ROOM

Shared schemas among emergency response agencies about one another can be discerned from common descriptions heard and overheard in “locker room” talk. One method of determining the true underlying schemas of an organization is to sample the conversations that take place in unguarded moments. The popular myths about police officers and the donut shop, fire fighters hanging out playing pool (or cards, dominoes, etc.), and paramedics’ arrogance and failure to pay their dues (as the “new kid on the block”) persist, even among “brothers” that know better. Myths passed inter-generationally are one aspect of identification of the individual police officer with the LE clan, or the individual fire fighter with the FS brotherhood:

It is possible for individuals to share a schema without being aware of that commonality. However, since organizational culture is bound up in notions of the community, it seems reasonable to assume that the psychological experience of sharing is of importance in its own right. This is consistent with Schein’s (1985) observation that “Shared understanding means that members of the group recognize a particular feeling, experience, or activity as common.” Efforts to treat sharing as simply a group-level aggregation of the number of individuals holding particular beliefs and values neglects the fact that such an approach may not capture the extent to which individuals experience sharing.⁴⁶

The point at which myths and stories go beyond “poking fun” and begin doing actual relational damage is no clearer in inter-group relations than it is in the family. Myths repeated often enough become subjective reality. Destructive interactions may be remembered, and retaliatory intentions may lurk under the surface—unaddressed—for years. Uncooperative and antisocial feelings of one group towards another if allowed to fester may mutate and grow like a cancer out of proportion to the original offense. Just as in a biological family, the ability to work together cooperatively as a team may not be apparent until external stress—such as caused by a CI—brings the poison to the surface.

H. COMPETITION, RIVALRY, AND PUBLIC SAFETY’S HERO CULTURE

The ultimate prize of ERPs, though remaining nebulous and undefined in the minds of most emergency services leaders, lies somewhere on a continuum between increasing the amount of resources they currently control and breaking the Federal bank. With the advent of terrorism, ERPs are struggling to redefine themselves in terms of this

⁴⁶ Harris, S.G., *Organizational Culture and Individual Sensemaking*, pg. 318.

new environment, both out of the pure motivation of meeting the new challenges and the somewhat more egocentric motivation of improving their competitive position with respect to other responders. It is apparent that no one wishes to be judged remiss in their duty to prepare for another terrorism tragedy. It is equally apparent that the preparation target is a moving one, and the “bad guys” appear as adaptive as responders.

Unspoken-yet-true is the fact that the scores of deaths of first responders in the World Trade Center collapse has resulted in a real and demonstrable increase in “Public Safety Hero Culture Capital.” This Capital, though intangible, has proven to be a profitable transaction medium that ERPs have parlayed into increased budgets, new positions, equipment, and an enlarged mission. Based on some mixture of the goodwill of Americans, the recognition of future threat, genuine heart-felt sympathy and grief for the loss of first responder life, and a sense of collective guilt, the public has applauded an outpouring of Federal money that is unprecedented. It is as though the Federal government, instead of sending flowers to the funeral home for the fallen heroes, is sending fire trucks and chemical detectors to every nook and cranny of the nation. No duplicitous, malicious or unethical intent is implied by the foregoing. It is unmistakable, however, that the sacrifice of others has brought irrefutable advantages to those ERPs who survived them. The ready availability of resources has resulted in an inflationary spiral of sorts where the list of “boy’s toys” grows ever more exotic.

The previous information notwithstanding, on a sociological level of rivalry among siblings, the real prize up for grabs before and after 9/11 is preeminence in the Hero Story, with the accompanying accolades, admiration and tangible benefits. The FS, EMS and LE cultures naturally compete anyway, and the price of poker has risen to an all-time high. As the services struggle for position within the post-9/11 culture, basic questions concerning roles and priorities take on life-and-death proportions.

One example of such a debate is the national priority of incident prevention vs. incident response. LE naturally emphasizes prevention because of their crime prevention mission and intelligence component. Lacking corresponding resources and powers, the FS and EMS cannot compete with LE on a prevention playing field, and are relegated to emphasis of post-attack response and mitigation—which they recognize as their strength and the circumstance in which they play the dominant role. The ingrained cultural

response of prevention vs. response is played out daily in attitudes of command personnel as they jockey for position in the C&C scenario.

I. DISCIPLINE-SPECIFIC CULTURAL ISSUES

The following section is based upon the author's 31-year observation and interaction with the culture of ERPs. It will describe/explain specific cultural factors that can give rise to conflict at a CI, and should therefore be understood and discussed by IMT members during training. No judgment is made or implied as to whether a particular cultural factor is good or bad, only that it exists in some measure and constitutes a source of potential conflict.

1. Law Enforcement

a. LE Officers View Themselves as the Ultimately Responsible Party (to the Exclusion of Other Emergency Services Partners) at Major Incidents.

All ERPs are used to commanding in their particular area of legal responsibility and authority without interference from the others. LE, however, tends to view itself as the ultimate authority, presumably because of their coercive powers of arrest, use of force, and their mandate to preserve social order. No savvy police commander would admit to feeling that his/her authority trumps that of other ERPs, or that he/she would under any circumstances intrude upon the purview of fire or EMS (e.g., take over patient care, or assume command of the structure fire). But there are indications that, underlying external presentation, buried feelings occasionally give rise to an emotive, sub-rational response. For example, there have been many documented instances where police officers have affected or threatened to arrest fire fighters or paramedics for failing to comply with his/her orders on an incident scene. The specifics of circumstance in these cases are much less important than the cultural world view of the officer(s) that they possess the authority to trump that of other ERPs.

b. LE Command Officers View Most Major Incidents Primarily as Crime Scenes.

The juxtaposition of this cultural factor with the first poses the potential of conflict if LE officers impose their perspective on other ERPs trying to fulfill their own responsibilities. Many CIs, particularly terrorist incidents, are ultimately crime scenes,

but the FS and EMS have significant life safety and property conservation missions. These missions are of both cardinal and ordinal importance early in the incident.

Crime scene procedures demand tight emergency scene control, including limited admittance, minimal disturbance of evidence, and chain-of-custody procedures. These factors are important, but if LE makes the shift to crime scene procedures before other ERPs have completed their roles, conflict could easily be the result.

c. *LE Officers Work Primarily/Routinely as Individuals (One Riot, One Ranger).*

Police officers, particularly those outside of the incorporated city limits, are typically assigned one officer (or at most, two) per patrol car. There is an economic logic to this modus operandi since dividing the officers allows them to cover twice as much area in their patrolling. If there is a call to a particular address, the officers can respond to back up one another. Even separate back up response allows officers to observe more and from different directions than would be possible from a single vehicle. Also, the nature of the vast majority of their work does not require the attention and skills of more than one officer, with someone as back up for safety.

Because the foregoing is true, LE's response to incidents typically does not require much coordination between units. The LE culture is in stark contrast to the FS and EMS who work routinely in teams, and teams of teams. A typical FS response to a structure fire may be 5-6 fire trucks and 18-25 personnel. This type of response requires a great deal of coordination and a more centralized command structure.

d. *The LE Culture Reinforces Independent Action Primarily, and Coordinated Teamwork Occasionally.*

Because LE officers work as individuals so much of the time, their actions on the incident scene tend to be less coordinated than either EMS or the FS. Accountability can be a severe problem, particularly in the instance of a developing emergency that presents a continuing hazard to responders. The FS has a name for independent, uncoordinated action—freelancing—and the practice is strongly disparaged. All strategic activities should be authorized by the IMT; tactics must be coordinated by the Operations Section Chief according to the written Incident Action Plan. LE officers engaging in freelancing activities will be roundly criticized by FS officers, and the actions can lead to significant conflict, as well as place personnel in significant danger.

e. LE Embraces and Values the Quasi-Military Culture, and Where Provided, Civil Service Status and Protection.

LE culture—including organization, rank structure, chain of command and promotion—has long been modeled upon the military. Even the uniforms worn by police officers are designed to make their civil authority readily visible—a breast badge as the symbol of delegated authority to preserve order, and a cadre of weapons on the Sam Browne belt as an implied threat force to those who fail to comply. The military model implies certain ways of doing business in LE that have been adopted as “truths” within the police culture—respect for rank, clear unity of command, strong command and control schemas, aggressive enforcement of laws, and the authority to use coercive force.

Civil Service Law, where it exists, is designed to protect police officers from political coercion to prevent the performance of their duty. The law typically contains provisions relating such issues as hiring (to prevent job from becoming political patronage), promotion (to prevent patronage and cronyism), disciplinary action (to protect officers when they are required to take unpopular enforcement actions), and pay and benefits (to clearly delineate allowable sources of income). Civil Service Laws offer both protection and restriction for peace officers, and clearly contribute to the military “feel” of the culture.

2. Fire Service

a. FS Commanders View Themselves as Expert Incident Managers and the Owners/Keepers of the Incident Command System.

The ICS was designed within the FS as a response to the need to manage multiple emergency unit response to wildland fires. Since the early 1970’s, use of the system has developed and spread, initially as a tool for use on the fire ground, and lately in response to the need to coordinate multi-agency and multi-jurisdictional response to large incidents. Because the FS has been practicing ICS for more than 30 years, FS command officers view themselves as much more proficient in commanding resources, setting priorities, and working within the system. As a general rule, ICS technical knowledge is much higher among fire fighters than among police officers or paramedics.

Because of the industry-wide knowledge and integration of ICS, FS commanders question the ability of LE and EMS officers to operate in Unified Command at the same level of expertise. FS officers view themselves as incident command

specialists and practitioners, whereas LE and EMS are viewed as “dabblers” or occasional users. This attitude can be a source of conflict if FS command officers fail to acknowledge the right of LE and EMS to share command responsibilities.

b. The FS Works in Teams and Teams-of-Teams in Routine Response Activities.

This factor is directly related to the foregoing. As noted earlier, FS personnel respond to “bread-and-butter” incidents (e.g., structure fires, or rescues) from multiple locations (typically, stations) on multiple apparatus. Riding on, and assigned to each apparatus are three to six fire fighters who have trained as a team to perform specific duties upon arrival. The FS uses the ICS to manage the assignment, coordination of, and accountability for all of this equipment and personnel.

Since a CI is so designated because of the seriousness of the situation, the scope of the incident, and/or the number of resources required, the team nature of the response is readily apparent. Because the FS uses teams and the ICS to manage them on a daily basis, FS commanders feel uniquely qualified to act as the incident commander at CIs. This attitude can lead to conflict if FS commanders fail to gracefully and appropriately share power, and if other responders fail to act within the team structure.

c. FS Commanders Stigmatize “Freelancing”—Activities not Coordinated Through the IMT.

Uncoordinated actions are anathema in the FS because of the hazard that they present to all first responders on the scene. Conflicting strategy and tactics are the reason the ICS was developed initially. LE and some EMS agencies are less familiar with ICS, and are more prone to independent actions. The FS must understand and make allowances for this cultural difference, or the “freelancing” activities of agencies that are simply operating out of their normal culture world view will be a source of conflict.

d. FS Commanders Resent “Special Treatment” of Police Regarding Salaries and Equipment.

The local municipal budget has long been an organizational wrestling match between fire, police, and (where a separate third service) EMS. Because there is a limitation on the amount of resources, the competition for those resources is often fierce and personal. Salaries and benefits are the primary battleground, but equipment and programs are also fertile areas for conflict. Resentment is intensified by the FS

perception that LE is favored in the budget process. This resentment can contribute to a history of conflict between departments that precludes cooperation at the CI scene.

e. The FS Embraces and Values the Quasi-Military Culture, and where Provided, Civil Service Status and Protection.

Like LE, and for most of the same reasons, the FS embraces a military structure. Organizational and rank structure, disciplinary procedures, and accoutrements of uniform convey the civil authority vested in FS personnel. Civil Service laws serve also to insulate them from political winds. Fire and police share the quasi-military culture, but EMS paramedics are typically closer to a medical, hospital-based culture. The two cultures are very different in style and values. The differences can be a source of conflict and misunderstanding.

f. The FS is Heavily Tradition-Oriented, is Famous for Resisting Change, and Many Departments/Members Have a Long Memory for Perceived Wrongdoings.

FS traditions have been the major stabilizing force since its inception in the 1800s. Traditions have shaped the FS culture since all volunteer fire companies competed with one another over neighborhood turfs and fist-fought over use of fire plugs. Change has been slow, and has continued to be resisted in the post-modern world. The FS is adjusting to the continuing threat of terrorism—most likely because 343 members were victims on 9/11—and needs of CIs. But interagency cooperation does not come easily or naturally to the FS.

g. The FS Inherited a Medical Mission Many Didn't Want.

In the early 1970's when emergency medical systems were beginning to be established all over the nation, the Fire Service seemed a natural place for the mission to reside. Major fires were declining in number, and most fire departments already provided first aid and rescue capability. To fire department administrators, EMS seemed to be just an extension of what they were already doing, and a new market that could preserve the FS's standing and improve its ability to compete with LE for resources. However, incorporating EMS was not exactly a natural fit, and presented line fire fighters with many issues—including convoluted promotional systems, mandatory ambulance rotations, dramatically increased call volume, and, for the first time, "burn out" began to

appear. Line fire fighters felt put upon from the beginning, and the medical mission has caused resentment and difficulty since.

Even in those cities that adopted EMS and established a separate third service department, fire and EMS have had relational difficulties. The FS is, and likely always will be the first responders for EMS because of the number and geographical distribution of stations allows fire fighters to arrive on the scene first and begin treatment. Many fire fighters—especially tenured officers—still resist a mission, because they “...didn’t sign on to be an ambulance jockey.”

3. Emergency Medical Services

a. EMS Views Their Mandate as Special Because They Deal with Life and Health Issues Rather Than Mere Property.

Personal health in our society at times seems to have been assigned the importance of a religion; indeed, some practice it as such. EMS views its mission as more important than either the FS or LE because it deals with health and preservation on life. Paramedic’s superior attitude is backed by public attitudes: health is something virtually everyone thinks about and considers very important, whereas a fire is something most people believe they will never experience personally, and LE is only a necessary evil. EMS presses its advantage of providing services with which most citizens are concerned, and it doesn’t experience the negative citizen encounters experienced by LE. It is the perfect situation for the “baby of the family.”

All ERPs assign the preservation of life as their highest priority at every incident. But EMS’s is quick to remind that it is **their only mission**, and believes that its singleness of focus sets the discipline apart from other ERPs.

b. EMS Views Their Discipline as More Complex/Intellectual Versus the Simplicity of LE/FS.

Paramedics often view LE and FS decision making as the uncomplicated application of standard operating guidelines, whereas the practice of their art involves the more challenging decision process. They believe that skills involved in fire fighting and LE tend to be more physical than cerebral, more tactile than mental. The FS and LE are more closely associated with building trades and security practices than academia. EMS couples itself to the mystic associated with physicians and medicine, and distances itself

from its blue collar brothers. This attitude leaves the impression of arrogance, and creates the tension between EMS and other ERPs that can result in conflict.

c. *EMS Has a “Load and Go” Culture That Has Them On-Scene Performing Their Specialized Skills—Typically—for 10 to 30 Minutes.*

Patients ultimately must arrive at a trauma center to receive complete medical attention. Paramedics perform important—often life-saving—intermediary attention, but the trauma “golden hour” precludes long treatment on the incident scene. Clinical research has shown that the longer it takes to deliver patients to a trauma center, the less their chance of survival.

Because of the need to remove patients from the incident scene quickly, the EMS mission on the scene of a CI is often completed in the first hour unless there has been a delay in transporting some of the lower priority (least injured) patients, or unless the resources are overwhelmed.⁴⁷ After that, the chance of discovery or rescue of seriously injured patients diminishes rapidly. Experience has shown that a large percentage of those injured who are able often self-extricate and self-transport to a medical facility within the first hour.

Following removal of the last patient, EMS’s role is typically relegated to a support mission for the remainder of the incident. Yet EMS expects to be represented in the UCT long after most of its personnel no longer play a primary role. EMS’s siblings, fire and police, are typically at the scene and involved in mitigation until the bitter end, busy with the investigation, debris removal and recovery of victim remains.

d. *EMS Does Not Embrace the Quasi-Military Culture, and More Closely Identifies with Hospital Culture.*

EMS has more in common with the “green collar” of the hospital scrub than the “blue collar” of the military-patterned uniform. The differences in cultural roots produce possibly the greatest opportunity for misunderstanding and conflict. As previously stated, paramedics embrace their medical academic roots. The discipline was originally formed out of a perceived need to move the hospital to the streets, and remove

⁴⁷ The “Golden Hour” is a well established trauma principle and guideline. Obviously, in a circumstance where there is difficulty in accessing or freeing trapped patients, EMS personnel will be required on the scene for longer periods. It should be noted, however, that the “heavy rescue” skills typically required in these circumstances are traditionally within the FS domain.

the ambulance service from the funeral homes. With EMS came greater skill applied earlier as intervention on behalf of the patient.

In the absence of an established culture and tradition, EMS made their own. The culture initially formed around hospital personnel who simply applied their trade to the new setting, rather than the quasi-military culture already shared by FS and LE. The 1970's was a time in the country's history when anything military was out of favor, and seemed to be overtly rejected rather than neglected by early EMS practitioners. The metaphor to illustrate the genetic differences between EMS and its ERP siblings is that of step-children—same mother, different fathers.

e. EMS as a Discipline is Young and Has Not “Paid Their Dues” in the Eyes of the FS and LE.

EMS is the Rodney Dangerfield of ERPs. Although many departments are retiring their first crop of 30-year paramedics, police and fire departments boast a much longer history, many more widows, and in some cases, trucks older than the paramedics that staff them. Regardless of the experience level of individuals, a multi-generational experience and tradition base for the profession and individual departments does not exist. This fact, coupled with the revered place that tradition holds in both the FS and LE, it is clear why EMS lacks respect.

Often EMS systems that are stand alone departments do not enjoy civil service status or protection, and are paid less than either of their contemporaries. Cities have refused to admit EMS departments into the civil service brotherhood because to do so is expensive. Paramedics resent that they often carry heavier call loads, have a heavier training and continuing education burden, and (as they see it) a more complex discipline—yet are paid substantially less.

4. All Emergency Services

The foregoing discussion of cultural issues has been discipline specific, but there are additional cultural traits that are shared between all ERPs. The following are shared characteristics that can equally contribute to inter-organizational conflict, but are, on balance, positive traits of ERPs as an occupational family.

a. *Emergency Workers Feel Responsible to Perform Well That for Which They Have Been Trained.*

Whatever their quirks, all ERPs are more than ready to perform when called upon. Not unlike the military, ERPs train constantly waiting for a mission. When the call comes in, paramedics, fire fighters and police alike are strongly motivated to execute the activities they have drilled on so many times. In the case of a CI, the self-induced pressures to perform are even greater, partly because of the strong culture of performing as an integral and vital part of a team (not wanting to let the team down), and partially because there is a sense, like destiny, that one's career to this point has culminated in this particular moment in time. To fail to perform under such conditions would be tantamount to occupational failure.

The aggressive drive to perform presents several conflict possibilities. First, all three disciplines tend to narrowly exaggerate the importance of what they do, each considering their own piece of the puzzle most important. Second, individual fire fighters, police officers and paramedics are highly motivated to take action to intervene on the incident scene, and, in the absence of discipline by ERPs, this trait can make it difficult to organize their actions to gain control over the chaos. Third, all seem to need to demonstrate their proclivities simultaneously upon arrival. Fourth, devising an action plan can be challenging under such conditions. Finally, each ERP commander or ranking officer tends to think that he/she can do the better job of organizing the response.

b. *Failure to Take Charge is Viewed as Negative by All Three Services.*

The culture of all three disciplines strongly values, even insists on robust, visible leadership. Each considers a failure to take or assume command to be tantamount to abdication of duty. For this reason, there is a greater tendency for everyone to take charge than no one.

c. *All Three Services Have A "Heroic Expectation" of Themselves, and Perceive the Same Expectation of Their Performance From the Public.*

This cultural aspect is more esoteric than the others. Before 9/11, but especially since, ERPs have been honored as folk heroes, even in the absence of heroic action. Individual fire fighters, police officers and paramedics, having received a large amount of vicarious praise and characterization of their job as "heroic" seem to have

developed internal expectations that, given the opportunity, they also will perform heroically. One extension of this rationale is that each expects their particular emergency services discipline to be the one that “rides in on the white horse to save the day.”

d. Negative History and a Long Institutional Memory Among ERPs Can Color Cooperative Efforts.

The very public battles and ill feelings between the New York (City) Police Department and the Fire Department of New York (City) are legendary. One needs to look no further than the bad blood and high profile feuding between these two to understand the sibling rivalry relationship between ERPs. Although admittedly an extreme example, the NYPD and FDNY relationship is symbolic of rivalries that exist in cities and counties all over the nation.

Institutional memory tends to be long and function very well with respect to recording wrongdoings of fellow ERP siblings. Hard feelings can hang on a long time, and be the source of failure or refusal to cooperate at an incident.

e. Ownership Issues for Protection Districts Cause ERPs to React in a Territorial Manner Toward “Their” Citizens.

It is natural for ERPs to develop an affinity and sense of responsibility for their response district. The culture of all three disciplines encourages a protective sense and attitude for citizens and property (sometimes referred to as “turf”). Local ERPs show these tendencies more strongly than State or Federal agencies, presumably because they are “closer” to the people; that is, they have daily interaction with individual clients.

The protective, territorial instincts can be geographic or functional, and can have either positive or negative effects. They are positive in the sense that the feelings increase a sense of investment and responsibility for the outcome of emergency incidents and result in Herculean output of effort. But if held too strongly, they can have the negative consequence of attempts to exclude other agencies with legitimate interests.

J. CONCLUSION: CHANGING INTER-ORGANIZATIONAL CULTURE

This chapter has shown how pre-existing attitudes, perceptions and O/O cultures directly bear on the problem of interagency and inter-disciplinary cooperation within the UC context at a major, critical incident. Many of these attitudes and cultural factors are not in and of themselves negative—in fact, many are the result of the very factors that have made command officers successful in their promotional systems, and that are

actively cultivated as positive traits within each department. They only manifest in a negative context when it becomes necessary to apply strategically and tactically complex solutions in a multi-disciplinary environment to major problems under high-stress conditions, and in collaboration with other ERPs who share similar traits.

Further, the interaction of many of these traits is as natural and as familiar as American family structure. The sociological truth is that the macrocosm reflects the microcosm—that is, even a group as large as the set of all emergency services workers is simply a collection of individuals. Potentially, these groups display the same struggles and issues as the nuclear family, and understanding the symptoms of conflict and how they may be dealt with, and intentional action in terms of training of IMTs will ultimately yield a cooperative and unified team.

Finally, there is a need for leadership within ERPs to be more ecumenical in approach to CI management. There is a tendency among the family of ERPs, with all of the rich traditions and entrenched sense of responsibility, to take the provincial view that the other siblings should gravitate toward “my” perspective and culture rather than negotiating new order based on common interests. Schein writes about the biases which are prevalent in intra- and inter-organizational relationships and the conflicts that result (I have paraphrased the following to apply specifically to ERPs):

Most of all, it will require, at the outset, the recognition that we are dealing with other cultures and are imposing our own cultural biases on them...The humanistic bias that is inherent in the field of organizational studies makes it hard for us to be truly sympathetic either to the [law enforcement emphasis of the police officer] or the [team emphasis of the fire fighter]. So we spend our time advocating that “they” should become more aware of [our culture], **which is tantamount to saying give up your culture and become a member of ours.**⁴⁸

Harris presents evidence of a condition called “strategic myopia,” that is, the failure of leaders to recognize that intra-organizational schemas, while helping with sense-making, can also “...blind individuals to features of the world that threaten the validity of those schemas to operate outside their purview,”⁴⁹ that is, inter-organizationally.

⁴⁸ Schein, E.H., *Culture: The missing Concept in Organizational Studies*, pg. 239. [emphasis added].

⁴⁹ Harris, S.G., *Organizational Culture and Individual Sensemaking*, pg. 311.

The logical mandate of the foregoing discussion is that ERPs must recognize cultural differences and how they contribute to conflict, openly discuss the issues, and intentionally implement pre-response measures to increase understanding of one another. Further, agencies must take deliberate, positive steps to expose and heal historical issues that have resulted in division and disunity. Failure of command officers to recognize these situations and make adjustments virtually guarantees CP conflict. Assuming that command officers are highly motivated to perform well under extreme conditions, and that minimizing conflict and its negative affects enhance good performance, it is incumbent upon leaders to devise training systems, e.g., the IMT training concept, to counteract the effects of cultural clashes.

III. THE EFFICACY OF IMTS AS A CATASTROPHIC INCIDENT MANAGEMENT STRATEGY

Chapter I referenced the changing regulatory environment faced by ERPs as they prepare for applying the concept of IMTs, as required by NIMS, to the problems presented by catastrophic incidents. The shift in C&C procedures to Unified Command involving many/all of the assisting agencies providing resources for mitigation is an alteration of fundamental strategy for managing major incidents. The strategic shift necessitated by UC is from a loose association of ERPs on-scene “doing their own thing” to functioning as a collective network led by a high-functioning IMT.

This chapter focuses on IMT formation and use as an appropriate strategic tool for dealing with the complexity of CIs, with the overarching goal of overlaying certain business literature models of inter-organizational networks (IONs) and WTs in order to glean from them the lessons learned from previous study. The discussion of collective strategy is relevant to the topic of IMTs as a base for theoretical understanding of the importance of joint preparation—as well as response—of the nation’s ERPs. It is pertinent both for understanding a successful response to a turbulent environment, and for the lessons the literature teaches that may be applied to an expanded IMT curriculum. Considerable management literature is reviewed in that details how existing studies shed light on the approach of IONs to meet the challenges of their own turbulent environment, and then the lessons are applied to IMTs as a form of ION.

A. THE COLLECTIVE AS A STRATEGIC RESPONSE

The events of September 11, 2001 dramatically increased the awareness of the nation’s ERPs about our vulnerabilities in a coordinated, dispersed and devastating attacks intent on causing massive damage and loss of life. While ERPs were not unfamiliar with CIs previously, the events of that day demonstrated that even the largest and best trained agencies need assistance—and therefore a common planning template—when simultaneous and coordinated CIs occur, as are the potential with terrorism. A general consensus emerged across all response disciplines that a page in history had been turned in terms of the nature and scale of incidents likely to be perpetrated against the U.S. homeland in the future. The dispersed attacks of 9/11 represented a fundamental

shift in the strategy of our enemy, and mitigating the challenges requires a corresponding strategic shift by everyone involved in homeland protection. The nation's LE, FS, and EMS are widely regarded as the front-line defenders, and therefore are not exempt from the need for strategic adaptation.

In a concerted effort to respond to the new threat, leadership in all three disciplines have called upon ERPs to embrace a collective strategy of joint planning, preparation, prevention efforts, and joint command and control of CIs. Astley and Fombrun wrote about the importance of cooperative action in a turbulent environment: "The significant adjustment of a population to its environment occurs not through the independent action of many individuals, but through the coordination and organization of individual actions to form a single functional unit."⁵⁰

B. THE NATIONAL STRATEGY FOR HOMELAND SECURITY

President George W. Bush, through the DHS, issued the National Strategy for Homeland Security on July 16, 2002. In the transmittal message, President Bush noted the previous lack of a shared vision to achieve homeland security, and stressed that the resultant document represents a "...national strategy, not a federal strategy."⁵¹ It supersedes existing local plans or establishes such strategies where they do not exist. The document is organized to address six Critical Mission Areas (CMAs) representing the broad spectrum of Homeland Security. One of these CMAs, entitled "Emergency Preparedness and Response,"⁵² describes all-risk joint response and mitigation activities

National Vision

"We will strive to create a fully integrated national emergency response system that is adaptable enough to deal with any terrorist attack, no matter how unlikely or catastrophic, as well as all manner of natural disasters. Under the President's proposal, the Department of Homeland Security will consolidate federal response plans and **build a national system for incident management**. The Department would aim to ensure that leaders at all levels of government have complete incident awareness and can communicate with and command all appropriate response personnel. Our federal, state, and local governments would ensure that all response personnel and organizations—including the law enforcement, military, emergency response, health care, public works, and environmental communities—are properly equipped, trained, and exercised to respond to all terrorist threats and attacks in the United States." (National Strategy for Homeland Security, pg. 42.)

Figure 3.1. National Vision

⁵⁰ Astley, W. Graham, Fombrun, Charles J., Collective Strategy: Social Ecology of Organizational Environments, *Academy of Management Review*, Vol. 8, No. 4 (Oct. 1983), pp. 576-587 (579).

⁵¹ Department of Homeland Security, Transmittal Message from President Bush dated July 16, 2002; *National Strategy for Homeland Security*.

⁵² Ibid, pg. v.

by ERPs upon occurrence of a CI. The Federal role is to “...provide funding and command and control support.”⁵³ The document replaced five different Federal plans and consolidated them under one National Strategy (NS).

The “Emergency Preparedness and Response” CMA details 12 major initiatives. The first two of these initiatives talk about incident management planning and the system that is designed to unite efforts of all ERPs:

1. *Integrate separate federal response plans into a single all-discipline incident management plan.* This initiative consolidates former federal plans into a single all-discipline, all-hazard plan. It removes the former designation of “crisis management” and “consequence management” phases, and consolidates on-scene Federal authority under a single federal coordinator to be named for each incident.

2. *Create a national incident management system.* The National Strategy “encourages” State and local ERPs to adopt an IMS by making it a requirement for the receipt of federal grants. It refers to the development by federal officials of a NS, defines common terminology, provides a unified command structure, and is scalable to meet all kinds of needs.⁵⁴

The plan to which the NSHS referred was released, after extensive nationwide comment and several drafts, as the NIMS.

The NSHS is an excellent point of beginning for setting strategic direction in the post-9/11 era. The document is a clear statement of priorities, while leaving sufficient room for mission customization at the state and local level that creativity from the response force could be brought to bear on problems. It artfully balanced and aligned internal and external components so that the clear message is that the nation’s first priority is prevention, but that all aspects of the problem, including response, would receive resources and attention.

C. NIMS AND IMTS

Prior to 9/11, joint planning and the sharing of a common, consistent management system between ERPs had been a hit-or-miss proposition, largely dependant on the level of local initiative. Many jurisdictions had embraced ICS, but many had not. A visible, organized, and positive C&C system at any incident is a primary requisite for success. The form of the C&C system in place prior to March 1, 2004 had been left to individual

⁵³ Ibid, pg. 41.

⁵⁴ Ibid, pp. 41-42.

agencies and jurisdictions, and many mutations of ICS had evolved over its 30 year history. The systems tended to be more similar than different, with most differences expressed as individual preferences or local practices of ERPs. NIMS changed the extant capricious reality by mandating a common structure, a common system, commonly applied, and implemented through a common vehicle.

As a result of the UC provisions of NIMS, there has been a strong movement recently in the emergency response community to encourage the creation of regional or local all-risk IMTs as a strategy for building competence and satisfying the requirement for operating in a UC environment at CIs. For example, on January 15, 2004 the U.S. Fire Administration, the International Association of Fire Chiefs, and the National Fire Protection Association, through FEMA, issued a joint press release calling for the creation of such teams.⁵⁵ More recently, the organizational consortium issued a press release announcing the formation of such a team in the Washington, D.C. metropolitan area, and encouraging others to follow suit.

If IMTs are to be successful as a collective strategy, inclusion of other agencies, disciplines and government sectors—as well as private interests—must occur. What is wanted is a national collective strategy expressed as a truly interdisciplinary network of ERPs. The following sections trace principles of strategic management in academic literature as applied to business, and makes application of these principles to the challenges of public organizations, generally, and IMTs specifically.

D. STRATEGY IN ACADEMIC LITERATURE

Venkatraman and Camillus state the definition of strategy as “...a stream of decisions taken to achieve the most favorable match or alignment between the external environment and the organization’s structure and process.” It is an art, a balancing exercise that matches and aligns various components within a mix that must be crafted for the individual organization (but may involve multiple organizations) within the context of its environment.⁵⁶

According to this view, the *pattern* of matching the different elements—some within the organizational boundaries (competencies and resources)

⁵⁵ IAFC/USFA Joint Press Release, *USFA Advocates Development of Incident Management Teams*, <http://www.usfa.fema.gov/about/media/2004releases/011504.shtm>. Last accessed February 19, 2005.

⁵⁶ Venkatraman, N. and Camillus, John C., Exploring the Concept of “Fit” in Strategic Management, *Academy of Management Review*, Vol. 9, No. 3 (July, 1984), 513-525 (513).

and others dealing with the environment (opportunities and threats)—is viewed as strategy...Recent strategy researchers also subscribe to the view of strategy as the process of matching environment and organization on an ongoing basis...Thus, strategy becomes the *pattern of interactions*, in which the focus is on...arriving at the desired configuration.⁵⁷

Strategy is not just the purview of for-profit organizations. All organizations, regardless of size or sector, operate within a social environment that prescribes parameters. Nutt and Backoff have modified standard business strategies (developer, entrepreneur, custodial and stabilizer) to fit environmental conditions pertinent to public sector organizations, such as ERPs. Building on the work of Miles and Snow, Acar, et al, and Harmon they propose a framework for classifying generic strategies for use by public organizations based on the interaction of two factors—“responsiveness” and “need for action”—by matching them with the task environment.

All organizations, including ERPs, must continuously monitor and adjust to their business environment to remain viable. This is typically done by “...sustaining need recognition and responsiveness at high levels, both internally and externally”, and by adjusting business strategies routinely in response to the environment. The need for action can have internal and/or external origins, and grows with the volume or intensity of calls for action. Responsiveness occurs when leadership initiates change of the agency strategy (as with IMT formation) based on emergent client needs that rise to a sustained level of importance.⁵⁸

The responsiveness to perceived needs takes shape as the organization determines its prerogatives [within its recognized domain]. The type of action thought to be useful moves the organization from avoidance to compromise or collaboration, depending on how the leader responds to pressure for action. The need for action that is recognized and for responsiveness thought to be appropriate suggests which of the strategies to use...[Leaders have] considerable incentive to balance needs with responsiveness.⁵⁹

Based on the juxtaposition of environment and the two criteria, the categories of generic strategy proposed by Nutt and Backoff are:

⁵⁷ Ibid, pp. 514-15.

⁵⁸ Nutt, P.C.; Backoff, R.W., Strategy for Public and Third-Sector Organizations, *Journal of Public Administration Research and Theory: J-PART*, Vol. 5, No. 2 (Apr., 1995), 189-211 (190).

⁵⁹ Ibid, pg 197.

- Drifters (Bureaucrats): Placid environment—low need for action, low responsiveness.
- Dominators (Directors): Disturbed environment—High need for action, Low responsiveness.
- Posturers (Accommodators): Clustered Placid environment—High responsiveness, low need for action.
- Mutualists (Compromisers): Turbulent environment—High responsive-ness, high need for action.⁶⁰

The proposed model uses the need for action and responsiveness to categorize environmental and strategy types. Applying the system to current ERP strategic adaptation, it is evident that the need for action in response to the potential for future CIs is “HIGH.” Public sector responsiveness, of necessity has also been “HIGH.” The juxtaposition of these two factors categorizes the environment as “turbulent,” and the appropriate strategy as “mutualist.” It is the most proactive category in the typology. Collaboration is a prominent feature of this strategy, and strategic competition has little or no relevance in public organizations in this environment. Organizations’ self-interest is subordinated to the urgency of the response need. The turbulence of the environment calls for the creation of consortia among organizations that have overlapping and complementary mandates and missions to service client needs—which is precisely what an IMT is and does.

According to the Nutt and Backoff system, IMTs appear to be an appropriate mutualist response to the turbulent environment in the post-9/11 era. IMTs are collaborative in approach and cooperative in style because of the situational complexity and tenebrous issues of mission and domain overlap. All ESP members involved in planning understand that no one organization or discipline can be successful alone. Mutualist strategy seeks creative solutions to challenges, and is more open to a variety of participation. Nutt and Backoff list six characteristics of organizations employing a mutualist strategy:

- 1) Key people set the tone by subordinating personal and organizational interests;
- 2) The organization develops an issue-centered focus of effort;
- 3) It establishes a consortium that draws key stakeholders into a body seeking to address emergent needs;
- 4) Uses the consortium to create or shape a vision to meet needs;

⁶⁰ Ibid, pp. 196, 203.

- 5) Seeks “win-win” arrangements for all affected parties;
- 6) Promotes trust so that stakeholders will cooperate in meeting needs and shepherding the consortium toward higher levels of cooperation.⁶¹

The Federal leadership in IMT formation is appropriate both in the scope and its self-defined role to this point. The President and DHS have provided the supra-organizational authority discussed by Schermerhorn.⁶² As the “ice breaker,” DHS has initiated and reinforced behavioral approximations to healthy relational overtures, which has resulted in further overtures and progress. Employing the “carrot and stick” approach, DHS has encouraged cooperation through making grant funding and expert support available, and defined cooperation as a positive value.

E. INTERORGANIZATIONAL COOPERATION

IMTs as a strategy depend heavily on inter-organizational cooperation. Different terms in the literature are used to describe inter-organizational cooperation (e.g., inter-organizational interdependence, component interdependence, cooperation, exchange, and concerted decision making). Schermerhorn describes the lowest common denominator of integral relationship for organizational interdependence to be that they take each other into account while pursuing independent goals.⁶³ (Of course, higher levels of interdependence are possible.) Accordingly, he defines inter-organizational cooperation as the presence of deliberate relations between otherwise autonomous organizations for the joint accomplishment of individual operating goals.⁶⁴

Organizations with separate and distinct missions, even if complementary, do not typically cooperate without a reason. Organizations will seek out or be receptive to cooperative arrangements when: 1) They are faced with situations of resource scarcity or performance distress; and/or, 2) “Cooperation” per se takes on a positive value; and/or, 3) A powerful extra-organizational force demands this activity. Cooperation among ERPs exhibits a federative context, that is, a supra-organizational authority (DHS) controls and monitors independent activities. In the federative context organizations maintain selective

⁶¹ Nutt, Paul C. and Backoff, Robert W., Strategy for Public and Third-Sector Organizations. *Journal of Public Administration Research and Theory: J-PART*, Vol. 5, No. 2 (Apr., 1995), 189-211 (205).

⁶² Schermerhorn, John R. Jr. The Determinants of Interorganizational Conflict. *The Academy of Management Journal*, Vol. 18, No. 4 (Dec., 1975), 846-856 (847).

⁶³ Ibid, pg. 847.

⁶⁴ Ibid, pg. 847.

independence, but are influenced toward collective activity by some inducement that makes cooperation an attractive option (e.g., federal funding grants).

Under those conditions where two or more organizations recognize some mutual need or purpose, organizational domains are not sensitive issues (domains at they relate to ERPs are discussed in a later section), and to the degree that prevailing norms and/or its external environment supports the activity, inter-organizational cooperation becomes more likely as an element in an organization's behavioral repertoire.⁶⁵ Thus capacity and need become the primary cooperative drivers:

The challenge to be met by theory builders...is to specifically conceptualize inter-organizational cooperation as the outcome of a process in which organizational decision-makers decide on cooperation as the preferred action strategy, and then ultimately achieve this strategy in organizational behavior.⁶⁶

The NIMS presumably includes IMTs as part of the national strategic response to terrorism for the same reasons that business organizations cooperate: resource scarcities, environmental turbulence, and overlapping interests.

Shermerhorn further postulates that the extent to which the physical opportunity for inter-organizational cooperation exists (proximity) positively affects the likelihood of cooperative behavior on the part of related organizations. There are a number of ways that physical opportunity may manifest, including in drills and exercises, as well as the active imagination of planners, especially when such suppositions are supported by external evidence of the potential of cooperative need. If it can be further reasonably speculated that if an instance of failure to cooperate would be very costly to any of the linked agencies (as a high profile failure at a CI would be in terms of public scrutiny/investigation and criticism), motivation to cooperate, even in the absence of a specific threat, is high. The availability of resources, either internal or externally conditioned upon cooperative actions and attitudes are potentially highly motivating in moving organizations into cooperative partnerships.⁶⁷

⁶⁵ Ibid, pp. 848-851.

⁶⁶ Ibid, pg. 852.

⁶⁷ Ibid, pg. 852.

F. ORGANIZATIONAL COLLECTIVITY

Environmental turbulence caused by interdependencies often several degrees removed from the focal organization can constitute a threat that may go unnoticed by stand-alone organizations. While individual organizations are typically focused on the task environment (customers, suppliers, regulatory agencies and competitors—entities corresponding to business-level and corporate-level strategies), turbulence in the general environment (domains outside the focal organization's) can make decisions concerning viable courses of action difficult. Organizations operating independently may suffer from the serious deficiency of being unable to conceptualize effective strategies for an inter-organizational environment. Collectives are particularly useful in this circumstance because what is obscure from one independent entity may be brought to the attention of the group by another member. Collectivity, then, may be described as "...a set of organizations that collaborate in order to absorb the variation presented by the inter-organizational environment...and are analogous to communal adaptations found in the biological world."⁶⁸

Much has been written about IONs and their potential use of a collective strategy. An interesting aspect of the discussion in the literature is the seemingly opposing viewpoints of social ecologists and those who believe that organizations are autonomous in their strategic choices. The one view emphasizes the macro effect of historical, sociological, economic and political factors—and their interrelationship—that control the response of whole populations of organizations and act as constraints to independent, even creative, action. Strategic choice advocates assert that as constraining as the environment may be, it remains the sum of all independent actions that are within the control of "future-responsive, social-learning" executives. A third, middle-ground position is posited by Astley and Fombrun, that organizations can overcome environmental constraints and the ineffectiveness of independent action through "...the creation of shared domains in which organizations can collectively, but not independently, maintain control of their own destinies,"⁶⁹—again, also an accurate description of IMT functional purpose.

⁶⁸ Astley, W. Graham, Fombrun, Charles J., Collective Strategy: Social Ecology of Organizational Environments, *Academy of Management Review*, Vol. 8, No. 4 (Oct. 1983), pp. 576-587 (580).

⁶⁹ Ibid, pp. 576, 577.

The social ecology view may be summarized as holding that organizations' business strategies are so constrained by environmental factors that the concept of strategic choice is non-sequitur. The viewpoint further asserts that these constraints remove meaningful direction-setting from the purview of executives, and relegate that role to one of largely symbolic value devoid of ramifications for survival or effectiveness. "In this view, all managers do is react to external constraints by accurately perceiving and processing information concerning environmental trends and events that originate beyond the organization's domain and control."⁷⁰ Executives who suffer from myopic and inaccurate perception or information processing share the same natural selection consequences as the lame antelope on the Serengeti Plain. Social ecology views strategic focus as limited to an internal matching of the organization's resources and capabilities with the external demands of the environment. External environmental forces are cited as another exigency responsible for the inter-organizational drift toward isomorphism.

While the points raised by social ecologists are well taken, they underestimate the ability of an organizational community to engage in communal adaptation as a defense to an insecure, even hostile environment. Population ecology has as its focus the independent effort of random organizations, and fails to account for concerted, sustained efforts by a collective. Two types of communal adaptation are evident both in nature and in organizational life: 1) Commensalism, and, 2) Symbiosis. As in bio-ecology, the appropriate level of analysis in communal adaptation is not the individual organism, but rather the community of which it is a part.⁷¹ Commensalism is expressed as cooperative and/or competitive effort between like species by which some advantage is gained (e.g., herding behavior of range animals); symbiosis is direct or indirect interspecies cooperative behavior that supplements the efforts of both (e.g., the plover and the crocodile). Both of these communal adaptations have a parallel application in organizational interdependence within and across market niches. Communal adaptation, then, through the affirmative and cooperative effort of the organizational community (rather than fiat of political, social, economic or historical factors) becomes the primary environmental constituent.

⁷⁰ Ibid, pg. 576.

⁷¹ Ibid, pp. 578-579.

IONs have become a fixture/centerpiece of corporate strategy. Increasing interdependence and relational intricacies characterize the many forms of networks, from formal/contractual to unconventional/spontaneous. IONs are a “...response to environmental determinism of population ecology...by recasting the concept of strategy in terms of collective mobilization of action and resources oriented toward achievement of ends shared by the members of [IONs].”⁷² This form of cooperation emphasizes collective strategy based on communal action, or “...the joint mobilization of resources and formulation of action within collectivities of organizations.”⁷³

G. TYPES OF COLLECTIVES

The literature describes four types of collective frameworks that categorize field relations into types based on the cross-classification of two sets of dimensions of relations: direct vs. indirect contact, and communalistic vs. symbiotic relations:

- 1) **Confederate Collectives**—Organizations from the same “species” that directly interact for the purpose of concerting their actions toward joint ends. They are clusters of organizations that do compete and do interact directly;
- 2) **Conjugate Collectives**—Organizations from different “species” that jointly and tightly interact because of complementary functions they perform for one another. They are clusters of organizations that do not compete and do interact directly;
- 3) **Agglomerate Collectives**—Organizations that form a single category because of their dependence on common resources, but do not cohere their collective actions. They are clusters of organizations that do compete and do not interact directly.
- 4) **Organic Collectives**—Organizations from different species that are interdependent due to membership in an overarching system of relationships. They are clusters of organizations that do not compete and do not interact directly.⁷⁴

IMTs as a regional collective strategy will assist in the current environment by reducing duplication of effort and services. They will also stretch scarce resources such as personnel, specialty equipment and expertise to use it, and stimulating creativity by more easily and quickly spreading training and ideas. By setting the stage for further cooperation, a strategy of cooperation by non-competing specialization can be implemented. This practice saves money by reducing the need for each community in a

⁷² Ibid, pg. 577.

⁷³ Ibid, pg. 578.

⁷⁴ Ibid, pg. 581.

region to have everything in terms of response capability. For example, perhaps one community fire department in a region would purchase and train on hazmat equipment, while another specializes in heavy rescue. Each would then respond into the other's community for that type of incident. Such organizational interdependence/cooperation is an example of the communal adaptation type of Commensalism.

Many such cooperative arrangements are being implemented throughout the nation of both symbiotic and commensalistic types. IMTs are comprised of cross-discipline personnel, and therefore are of a different "species", do not compete (although Chapter 3 describes a type of "occupational family" competition that is non-strategic), and do interact. Therefore, according to the Astley and Fombrun model, IMTs are a Conjugate Collective. "Symbiotic relations [arising] from the linkage of each organization's 'primary task' to the primary tasks of other organizations through the flow of work"⁷⁵ is an excellent description of the dynamic between IMT members. Other networks (such as the communal adaptation example cited in the last paragraph) are between like-species ERPs that cooperated through Commensalism, and do interact directly—constituting a confederate collective. The divisions between categories of collectives are not often precise, and this is especially the case among ERPs. Also, except those with most narrowly-honed strategic focus, most agencies in the real world have multiple interdependencies and network collectives.

Borys and Jemison write about hybrid arrangements as strategic alliances. They define "hybrids" as "...organizational arrangements that use resources and/or governance structures from more than one existing organization."⁷⁶ It is a joint effort/venture that is simultaneously a stand alone organization with its own character and values, and the product of sovereign organizations. In a hybrid strategy, sovereign organizations with common interests pool resources to accomplish some mutually beneficial goal. They are "...networks of power and trust through which organizations either exchange influence and resources, or take advantage of economic efficiencies."⁷⁷

⁷⁵ Astley, Graham W., and Fombrun, Charles J., Collective Strategy: Social Ecology of Organizational Environments, *The Academy of Management Review*, Vol. 8, No. 4 (Oct., 1983), 576-587 (583).

⁷⁶ Borys, Bryan and Jemison, David B., Hybrid Arrangements as Strategic Alliances: Theoretical Issues in Organizational Combinations, *Academy of Management Review*, Vol. 14, No. 2 (Apr., 1989), pp. 234-249 (235).

⁷⁷ Ibid, pg. 236.

Though typically applied to for-profit corporations, hybrid structure and characteristics have features germane to IMTs. Hybrid partners, though sharing a common interest that brought them together initially, often have very different goals, making conflict resolution an essential skill and collaboration of conflicting interests a routine method of operation.

H. STRUCTURAL DYNAMICS WITHIN AND BETWEEN ORGANIZATIONS

Inter-organizational relationships (IORs) occur when two or more entities transact resources. Andrew van de Ven states that it is useful to look at IORs as a social action system because it exhibits the basic elements of such: 1) Behavior among members is aimed at attaining collective and self-interest goals; 2) Interdependent processes emerge through division of tasks and functions among members; and, 3) An IOR can act as a unit and has a unique identity separate from its members.⁷⁸ Over time, IOR members adopt roles and develop expectations of one another, and by interdependence, can accomplish more or different goals than are possible alone. Theorists recognize three dimensions of a social system:

- 1) **Formalization**—the degree to which rules policies and procedures govern interagency agreement and contracts. An interagency agreement exists if any form of expression has been made between the parties regarding the terms of the relationship.
- 2) **Centralization**—refers to the locus of decision-making in a collectivity. The centralization of an IOR is defined as the degree of inclusive or concerted decision-making by member agency representatives.
- 3) **Structural Complexity**—the number of differentiated elements that must be contended with and integrated in order for the IOR to act as a unit. Two indicators measure the structural complexity of an IOR: the number of organizations involved in the IOR, and the number of issues or tasks on which the IOR is based.⁷⁹

Considering the viewpoint of a social system, the principles of formalism, centralization, and structural complexity can be applied to IMTs. First, formalism refers to policies and procedures, standards, rules, etc., governing interactions. No credentialing authority for regional/local IMTs has been established at this writing except by local

⁷⁸ Van de Ven, Andrew H., On the Nature, Formation and Maintenance of Relations Among Organizations, *The Academy of Management Review*, Vol. 1, No. 4 (Oct., 1976), 24-35 (25).

⁷⁹ Ibid, pg. 26.

agreement between individual ERPs. As cited, the NSHS, the NIMS, the NRP and assorted other documents and laws give broad guidance. Locally drawn and executed Mutual Aid and Automatic Aid contracts sometimes give detailed guidance. These typically only exist currently in conjugate collectives, but national and state-wide contracts for mutual aid are under development and should formalize a wider collectivity among ERPs in the next few years. Therefore, the current relationships within an IMT are largely informal except by local agreement, but may have an expanded agreement base in the future.

The IMT command group leads the decision-making process for incident management. In this sense its command authority is highly centralized. However, the UC environment within the IMT qualifies the nature of their decisions as decentralized. Also, many tactical decisions for the incident are pushed down to lower levels of the command structure.

No matter from what perspective it is viewed, the IMT must be considered structurally complex. The number of facts and important pieces of information that must be assimilated into the decision matrix—often with life safety consequences—is staggering. Typically, the numbers of organizations that interact in the formal structure are fewer than ten, but could be twice that in a large metropolitan area.

There is usually a concerted effort within the IMT to equalize the contribution of each participating agency to the flow of resources and information. Obviously, though, certain jurisdictions and disciplines, including LE, are more resource-rich than others. Also, with respect to information, it is the task of LE within the Incident Command structure to supply other members of the IMT with intelligence. Therefore, LE tends to be the purveyor and controller of group information, and a resource-rich partner, making the discipline (in Benson's political economy) a powerful player in the IMT mix.

The nature of the flow of resources within the collectivity may be more important than the structural arrangement. In fact, resource flows are the defining criterion by which the growth, adaptation or dissolution of the IOR may be measured. Resource flows are units of value transacted between agencies, and include money, personnel, facilities and materials, and perhaps most importantly, information. Resource flows are measures in terms of their direction, intensity and variability. Three reasons account for the

importance of resource and information flows within the IOR. First, they are the basic elements of activity in organized forms of behavior. Second, task-instrumental functions and pattern-maintenance activities—essential for the survival of the IOR—are manifest in resource flows. Third, resource flows reveal process dynamics by which power and strategic importance of the members may be evaluated.⁸⁰

The structure of collectivities may also be explained from the ecological perspective (where survival against environmental threats is primary), the social domination approach (where the actors or power elite manipulate systems in order to achieve parochial ends), or the anthropological approach (where meaning is derived through social construction).⁸¹ Fombrun posits that it “...may be useful to recast them as disaggregate facets of a more comprehensive concept of structure”:

Thus, the structure of any social collectivity could be said to consist of three layers of constraint on individual organizational actions: (1) an infrastructure of productive activities, to which is coupled (2) a socio-structure of exchange relationships itself overlaid by (3) a superstructure of shared values. In this view, structure is understood to be a temporary configuration of infrastructure, socio-structure and superstructure—an instance in a dynamic process of structuring that imbues [sic] action with meaning.⁸²

The foregoing gives rise to questions of process in the dynamic morphological development of otherwise unrelated organizations such as those presented by ERPs. Greatly simplified, there is typically an etiologic event, state or threat that serves as an aggregational medium for inter-organizational interest. Individual overtures and actions yield coalitional activities; these aggregate to produces such outcomes as goals and strategies, which ultimately congeal as the infrastructure, socio-structure, and superstructure of the collectivity.⁸³ Industry equilibrant forces across interdependent populations often result in a dynamistic movement where relational interdependencies that have proved mutually propitious are copied by others, and ultimately evolve into a best practices model. In this context, the etiologic event for ERP collectivity was the attacks of 9/11; the aggregating medium has become the IMT, and the precipitate is a

⁸⁰ Ibid, pp. 26-27.

⁸¹ Fombrun, Charles. Structural Dynamics Within and Between Organizations, *Administrative Science Quarterly*, Vol. 31, No. 3 (Sept., 1986), 403-421 (404).

⁸² Ibid, pg. 405.

⁸³ Ibid, pg. 405.

cadre of regional interdisciplinary teams of expert incident managers that train, exercise and respond together.

I. IONS AS A POLITICAL ECONOMY (PE)

Benson argues that all interactions between networks (even service delivery cooperation) are ultimately resource-acquisition dependent. “The [ION] may be conceived as a political economy concerned with the distribution of scarce resources, money and authority.”⁸⁴ Money is self-evident; authority is described as “...the legitimating of activities, the right and responsibility to carry out programs of a certain kind, dealing with a broad problem area or focus...Legitimated claims of this kind are termed domains. The possession of a domain permits the organization to operate in a certain sphere, claim support for its activities, and define proper practices within its realm.”⁸⁵ As for the discussion on environmental factors and their role in influencing strategic choice, Benson addresses environmental importance from the PE perspective, but he claims that it is only “...important insofar as it affects 1) the supply of two resources, money and authority, and 2) the distribution of power within the network.”⁸⁶

Controlling resources is one source of network power, but there are others. The size and degree of mobilization of a member’s constituency, and their social status is another source. More powerful members are those able to force favorable solutions in negotiations. Very powerful members are able to reach across agency boundaries to determine policies, procedures, rules, and/or operating guidelines of weaker members.⁸⁷

Finally, Benson addresses the concept of equilibrium within the ION. He claims it is “...equilibrated to the extent that participant organizations are engaged in highly coordinated, cooperative interactions based on normative consensus and mutual respect.”⁸⁸ He identifies four dimensions of equilibrium:

- 1) **Domain Consensus**—Agreement regarding the appropriate role and scope of an agency.
- 2) **Ideological Consensus**—Agreement regarding the nature of the tasks confronted by organizations and appropriate approaches to those tasks.

⁸⁴ Benson, Kenneth J., The Interorganizational Network as a Political Economy, *Administrative Science Quarterly*, Vol. 20, No. 2 (June, 1975), 229-279 (249).

⁸⁵ Ibid, pg. 232.

⁸⁶ Ibid, pg. 239.

⁸⁷ Ibid, pg. 234.

⁸⁸ Ibid, pg. 236.

- 3) **Positive Evaluation**—The judgment by workers in one organization of the value of the work of the other organization.
- 4) **Work Coordination**—Patterns of collaboration and cooperation between organizations. Work is coordinated to the extent that programs and activities in two or more organizations are geared into each other with a maximum of effectiveness and efficiency.⁸⁹

J. ORGANIZATIONAL DOMAINS

There are many taxonomic systems proposed by different researchers for various contingency approaches to selecting a business strategy. It is beyond the scope of this thesis to review all of these, but it is worth noting that a common theme in the differential between taxonomies is the concept of organizational/ occupational domain, its defense, expansion, stability, or abandonment. Domain is vital to the discussion of IONs (especially those involving ERPS) in the public sphere because of its potential for conflict genesis. Administrators, and to a lesser degree all members, seek to maintain an undisputed claim to a clear domain of high social importance. Such a domain is characterized by one or more of the following; the greater the domain approximates these criteria, the greater the agency hold over funds and authority within that sphere:

- 1) **Exclusiveness**—untrammelled, unchallenged by other organizations;
- 2) **Autonomy**—a claim permitting the performance of activities independently, without supervision, direction, or shared authority by another agency;
- 3) **Dominance**—a claim permitting authoritative direction of other agencies operating in a specified sphere; and,
- 4) **Application and defense of the agency's paradigm**—participants are committed to the agency's definitions of problems and tasks, and techniques for doing things.⁹⁰

Althaus and Yarwood explain that formal authority is an especially important resource, since its manipulation is a major strategy that an organization can use to increase its dominance in a field or reduce its dependence on other organizations. They continue that conflict results when two or more types of organizations (such as make up

⁸⁹ Ibid, pg. 236.

⁹⁰ Ibid, pp. 232-233.

the set of ERPs) make a claim over the same population or service (or incident scene).⁹¹ Mandated authority may be an effective bridge across disputed domain overlap areas, and sometimes mandates may be cited to establish priority to the interests of one agency over another. Where no clear mandate exists, network members must negotiate their own order, recognizing their own unique interests, but also mindful of their “stake in maintaining a set of structures and understandings that [facilitates] policy making in the domain.”⁹² In settling domain disputes between agencies, they suggest developing a negotiated order between members, each understanding the agency’s stake in its maintenance. They further recommend seeking clear legal mandates, where applicable, and recognition of the importance of boundary-spanning groups between agencies. Finally, they suggest a “rich mosaic of coordinating bodies and working groups which [tie] the domain together and afforded much predictability about likely behaviors.”⁹³

K. IMTS AS A COLLECTIVE STRATEGY

Other reasons for shifting strategy (in business and public service) include the level of aggression by or against the organization, the availability of resources, a new/renewed public mandate, and/or the occurrence of a seminal event. The seminal event resulting in the IMT formation push was the coordinated attacks of Sept. 11. The turbulence present in the environment (and likely to be present for some time to come) that serves as a powerful motivator for cooperation is terrorism, but other all-risk hazards also. The motivation for IMT formation does not follow the industrial model of competition and power retention, but rather an affirmative need for joint and cooperative planning and activities to manage complexity in light of lessons learned from major terrorist attacks. Response to CIs would be simplified if clear domain rules could be explicated; but their nature—particularly those arising from terrorism—defies categorization as purely a LE, FS, or EMS issue.

L. ELEMENTS OF THE TURBULENT ENVIRONMENT

The literature and this author have stressed the importance of the environment in which strategic decisions are made. The natural question at this point is “What are the

⁹¹ Althaus, Rickert R., and Yarwood, Dean L., Organizational Domain Overlap with Cooperative Outcomes: The Department of Agriculture and State and International Agricultural Policy During the Carter Administration, *Public Administration Review*, Vol. 53, No. 4, (Jul.-Aug., 1993), 357-367 (358).

⁹² Ibid, pp. 363, 365.

⁹³ Ibid, pg. 366.

current environmental factors that contribute to the need for IMTs?” While not intended to be a complete environmental analysis, major enabling and limiting determinants for ERPs can be listed:

- Federal, State and local governments are experiencing increasing service demands and decreasing revenues. Unfunded mandates are common;
- New and emboldened terrorist groups (foreign and domestic) have formed and are operating within the United States;
- U.S. citizens (ERP’s “customers”) have been sensitized to terrorism as a threat, and hold high expectations for protection;
- Some Federal funding has become available to pay for increases in terrorism security, but far less than is needed;
- Federal funding typically does not pay for personnel, nor can it be spent for high-cost items like training or equipment maintenance contracts;
- There is an increase in many types of natural and man-made hazards other than terrorism, e.g., tornadoes, hurricanes, earthquakes, volcano eruptions, hazardous materials spills, transportations accidents, etc.;
- ERP infrastructure (apparatus, equipment, communications, facilities) are substandard and aging in many regions of the country;
- Equipping and training ERPs for all-hazards response is incredibly complex, expensive and time consuming;
- There exists a wide disparity between metropolitan areas and rural, sparsely-populated areas in terms of both the level of protection and risk;
- Existing inter-organizational relationships are few; many that do exist have, and continue to suffer from negative interagency history;
- Occupational culture differences between ERPs strain relationships;
- The enemy is adaptive, constantly probing for defense and security system weaknesses;
- Change is occurring at a very rapid rate. Many sectors of government are currently formulating plans involving/affecting ERP agencies;
- Technology to assist with the ERP mission is expanding rapidly;
- Standards and guidelines are being promulgated faster than they can be effectively assimilated.

While environmental factors are not all negative, there is no shortage of challenges. I believe it is accurate—perhaps even an understatement—to conclude that the above issues faced by ERPS classify the current environment as turbulent. Business literature supports and clarifies the use of a collective strategy as an appropriate strategy for mastering the turbulence presented by catastrophic incidents.

M. CONCLUSION

A collective strategy for dealing with the current turbulent threat environment is appropriate. Further, the literature supports the contention that implementation of IMTs as a form of ION to connect ERPs is equally appropriate. What is yet lacking in Federal

leadership is an IMT curriculum design that incorporates not only the technical knowledge of CI management techniques and responsibilities, but also incorporates the lessons learned by American business and academia about the “soft skills” of team cooperation and collaboration. DHS, through FEMA, should provide team selection criteria, instructional materials, and a registration system and continuing education requirements for accreditation for team members. The concept behind IMTs is the same as has been referenced throughout this chapter—a designated group of experienced, typically senior-level managers who train together, study specialty positions within ICS, and function as an IMT in the instance of a CI. The concept is sound; but as currently designed the training tends to focus on ICS responsibilities and ignores team skills. It would not be accurate to say that “soft skills” are deprecated—in fact, there is a strong appreciation for them among current IMT members of the U.S. Forest Service.⁹⁴ But to date, team-function skills have not been incorporated into a national IMT curriculum.

One explanation for the absence of team-functioning skills training in the formal curriculum (but a strong appreciation of the skills within the practitioners) is that team members may be expected to develop the skills outside of the IMT classroom. Another possible explanation is that desired team skills are expected to form naturally in the “shadowing” phase of training or after members are assigned to a particular team. A third possibility is that those controlling entry and assignment to an IMT will test for the presence of such skills prior to appointment of the member.

In the uncertain, turbulent environment that currently exists among emergency response providers, a collective strategy with IMTs as the central focus offers the greatest possibility for maximum effectiveness for CI management. The literature describing the experience of business and academia provides a rich theoretical base from which to expand the IN experience of ESPs, and advance to the next step in IMT evolution—the development of a comprehensive national curriculum for standardizing training of team members, and instructing them in teamwork skills, such as collaboration, consensus decision-making, power sharing and conflict management.

⁹⁴ Donahue, Amy K., PhD., *Incident Management Team-All Risk Operations and Management Study*, Center for Policy Analysis and Management, Institute of Public Affairs, University of Connecticut, August, 2003.

IV. THE UC ENVIRONMENT AND WORK TEAMS

Chapter II examined the potential provenience of IMT conflict in organizational and occupational culture roots. Chapter III made the case for IMTs as an appropriate strategic response to the CI threat, and applied strategic business model theory from the study of IONs and WTs. In this chapter, 1) the UC environment is further described, 2) the nexus between WTs and IMTs is established, and, 3) the utility of WTs to fulfill the requirements of UC employing a collaborative process is discussed.

WTs have been researched over the past 20 years in a more complete and scholarly manner compared to the relatively neophyte concept of IMTs. This is attributable to the academic stature of the genre of Organizational Behavior (OB), whereas the FS is an action-oriented profession, and not dedicated to theoretical research. In contrast, the scholarly literature describing WTs grows with each passing year.

A. BOUNDING THE PROBLEM—UNIFIED COMMAND DYNAMICS

A visible, organized, and positive C&C system is a primary requisite for success. Relying on an ad hoc IMT composed of all represented ERP agencies is adequate for most jurisdictions at “routine” emergency incidents.⁹⁵ CIs, however, invoke a different and enhanced regimen. Ad hoc teams, under the circumstance of a CI, will be far less efficient and more dangerous to responders.

The term “Unified Command” has a wider application than the genre of emergency services. In particular, it also has an established meaning and is a regular model for management within the U.S. military. It is interesting to note the organizational differences between the military and emergency services, and how they manifest in nuances of application of UC. Because the military is federalized, and therefore operates under a centralized authority, it is able to designate an overall single commander for any operation. Emergency services, however, are typically organized and funded on a local level as independent entities. Therefore, although they respond and operate concurrently at an incident scene, no central authority exists to designate an overall commander.

⁹⁵ On its face, the use of the terms “routine” and “emergency” in the same sentence appears oxymoronic. However, for responders who deal with such situations day-to-day, even emergency events vary in intensity, resource commitment and profile—thus the distinction.

An important aspect of IMT formation is that agencies frequently have legal or ethical mandates that they may not electively lay down. For example, a CI—such as the crash of an airplane—may involve many and varied strategic priorities for which different agencies have jurisdiction. In the previous example, the FS typically owns the responsibility for hazardous materials, fire extinguishment, and rescue of trapped persons. EMS is charged by law to care for the medical welfare of injured persons, while LE must document and investigate deaths, control the environment to ensure the safety of the non-involved public, and preserve evidence for Federal investigators. As observed by Douglas Riley, of the National Park Service:

One of the biggest fears that people seem to have regarding the [UC] structure is that they will be “robbed” of their jurisdictional authority...the keystone to [UC] is that **[it] will not be compromised**.⁹⁶

Many laws assign ERP accountability, but tend to avoid prioritizing one discipline’s responsibility over another. Dedicated and professional organizations may engage each in their own piece of the complex puzzle, but unless they are coordinated, they risk their own safety and the frustration of conflicting strategies. One important function of the IMT is the process of arriving at a negotiated order of operation in pre-incident low stress environment. This negotiated order is best accomplished in the classroom through open discussion between IMT members.

The IMT is constituted from many directly and diversely-interested organizations. The core of the Team is comprised of local first responders. The remainder is dependent upon the target host of the CI,⁹⁷ and is typically comprised of officials from other State, Federal or private organizations. It may include extra-local LE, or other federal assisting agencies—again, depending upon the nature and location of the incident.

The occupational and skill-set diversity of the IMT is its primary strength, and is also the source of its greatest challenge. An IMT is first and foremost **a team**, subject to all of the dynamics of interpersonal relations. Experience has shown that orientation diversity in a professional environment can result in conflict, and minimizing the negative affects while accentuating the positive is the goal of conflict management:

⁹⁶ Riley, Douglas J., “Know Thy Neighbor—The Key to Unified Command.” *Fire Management Notes*, Vol. 49, Number 1; (1988), pp. 8-9 (8). [emphasis added].

⁹⁷ The target host is a jurisdiction or group with direct interest in the welfare of the persons or property negatively impacted by the incident and its aftermath.

In conducting both intergroup [sic] conflict and that occurring between component parts of a single group, two kinds of effects may be distinguished. [C]onflict may result in the destruction or disruption of all or certain of the bonds of unity which may previously have existed between the disputants. [Or]...conflict may strengthen pre-existing ties or contribute to the establishing bonds where none before existed.⁹⁸

One dynamic that is ever-present at a CI is an atmosphere of high stress. Risk management evaluations must be made quickly and accurately with limited information. Resources must be placed to best advantage, and typically under conditions of chaos. Commanders frequently specify strategy and tactics in the course of incident mitigation that bring responders into harm's way and it is not unusual for one or more team members to view differently the risk involved in a strategy. Under pressure, consensus decisions become more difficult, and nerves become frayed. Any list of desirable characteristics for IMT members would include remaining calm and thinking clearly under pressure, and to constructively dealing with interpersonal or interagency conflict.

UC purposes to bring the owners of incident accountability into a dialogue and collaborative effort to set and prioritize strategies within a jointly-constructed Incident Action Plan (IAP). Some jurisdictions prefer to recognize one agency as the "lead", or "first among equals." The identity/discipline of the lead changes as the incident evolves, and as strategic priorities are accomplished and replaced by new ones. However, under pure UC theory a "lead" commander has no authority over others except to break ties and call planning meetings. "First among equals" smacks of oxymoronic control, perhaps a vestige of those who subconsciously prefer Single Command.

B. INTRODUCTION TO WORK TEAMS

With NIMS, the Federal government specified an outcome (UC/IMTs) without providing a comprehensive roadmap (training curriculum) for effectual implementation. This approach can be an effective one when the desired outcome is creative adaptation of systems and processes, but hardly makes sense when the stated objective is nationwide standardization. In the absence of a NIMS IMT training standard, other organizations have attempted to fill the void, most notably the USFA in cooperation with the IAFC. The NFPA also has announced its intent to issue a tentative interim agreement this

⁹⁸ North, Robert C.; Koch, Jr., Howard E.; Zinnes, Dina A. "The Integrative Functions of Conflict," *The Journal of Conflict Resolution*, Vol. 4, No. 3, (Sept., 1960), 355-374 (355).

summer [2004] that describes the positions, roles, and responsibilities of the command and general staff positions within the incident management systems.” The resulting amended NFPA 1561 standard has not yet been issued, and there is no evidence that it will address non-ICS curriculum subjects.

Without a **complete** training curriculum encompassing the technical skills of ICS **and** the soft skills of team dynamics, IMTs lack important tools. A study of non-ICS skills for team members in a UC environment is needed, and can best be accomplished by an in-depth view of CI command structures through the lens of organizational theory and a WT model practiced in the private sector. In the following sections, I will identify ideal team characteristics from the literature.

WTs are in wide-spread usage in both the public and private sector, and are often the vehicle of choice when ill-defined projects of importance to an organization’s goals are implemented. The characteristics of this type of group make it ideally suited for the ambiguity, complexity, and the wide variety of expertise and service demands of a CI. A basic assumption of this thesis is that the skills involved in WT success are both identifiable and transferable, and, that the skills and characteristics do not necessarily occur naturally, but can be trained and developed in almost any specified group.

C. DEFINING WT CHARACTERISTICS

Kirkman and Shapiro quote Wellins’, et al, definition of WTs:

...[G]roups of employees who have the following responsibilities: (1) they manage themselves (e.g., plan, organize, control, staff and monitor), (2) they assign jobs to members (decide on who works on what, where and when), (3) they plan and schedule work (e.g., control the starting and ending times, the pace of the work, and goal-setting), (4) they make production- or service-related decisions (e.g., they are responsible for inventory, quality control decisions and work stoppage), (5) they take action to remedy problems (e.g., address quality issues, customer service needs, and member discipline and rewards). **Reported [WT] benefits include the capacity for the team to manage and lead itself...; the initiative, sense of responsibility, creativity, and problem solving that comes from within the team; and the team’s unique self-reliance.**⁹⁹

⁹⁹ Kirkman, Bradley L.; Shapiro, Debra L.; “The Impact of Cultural Values on Employee Resistance to Teams: Toward a Model of Globalized Self-Managing Work Team Effectiveness;” *The Academy of Management Review*, Vol. 22, No. 3 (July, 1997), 730-757 (731). [emphasis added]

The above definition is useful in linking WT with IMTs, as is a description of the characteristics and process. The benefits cited are absolutely essential to IMT function at CIs. Two problems associated with applying WT principles in the realm of emergency response are the variety of conceptual applications and a simultaneous lack of definition of a complete WT skill set. However, many individual characteristics of group success have been established in the literature. The more precise question for this chapter is “Which subset of WT characteristics is appropriate for IMTs application.”

NIMS emphasizes a team effort on the part of responding agencies—the term “collaborate” (or derivation thereof) is used 15 times in the standard. There does not appear to be a consensus definition of those skills in related literature, but at least one study has attempted to identify characteristics of good IMT members. These characteristics include mitigating conflict, good team skills, effective communication, a problem solving orientation, flexibility, adaptability, cooperation, and clear delegated authority and support.¹⁰⁰ The context of WT use is often the highly-creative, fluid environments where professionals requiring little supervision are conjoined and tasked with accomplishing some portion of the organization’s goals. They are usually of mixed background and skills, and often cross-trained for redundancy.¹⁰¹

Over the past decade Organizational Behavior (OB) literature has reported a growing commitment to participation. “The basic idea of participation represents toward a shift toward **sharing control** and **power**. These two notions are the foundations of...[OB] models for [WTs].”¹⁰² Applications of control and power sharing extend beyond the realm of enlightened private sector management. Incident management theory has established the need for sharing of command responsibilities among contributing agencies to increase effectiveness and protect the legal mandates of each.

The correlation between WT and IMTs is strong. WT and IMT members either sink or swim yoked to the team. Each has his/her area of expertise to contribute, yet must be familiar with all aspects of the group’s task. As Appelbaum, et al, notes, “[WTs] consist primarily of two dynamic components: 1) the process of self-management; and, 2)

¹⁰⁰ Donahue, Amy K., PhD., Incident Management Team-All Risk Operations and Management Study, Center for Policy Analysis and Management, Institute of Public Affairs, University of Connecticut, August, 2003, pg. 29.

¹⁰¹ Appelbaum, Steven H., Abdallah, Chahrazad and Shapiro, Barbara T., “The Self-Directed Team: A Conflict Resolution Analysis,” *Team Performance Management*, Vol. 5, No. 2, (1999): 60-77 (61).

¹⁰² Ibid., pg. 61. [emphasis added].

collaborative teamwork.”¹⁰³ These two common components are the strongest evidence in the logical linkage between WT and IMT (by the “Walks like a duck, quacks like a duck” heuristic). Other commonalities notwithstanding, these two—self-management and collaboration—make WT and IMT brothers under the skin.

D. FOCUS ON COLLABORATION

Collaboration is a decision process that requires highly developed interpersonal skills for members:

[C]ollaboration reduced to its simplest definition means "to work together." The search for a more comprehensive definition leads to a myriad of possibilities each having something to offer and none being entirely satisfactory on its own...The most robust definition (and the most commonly cited) seems to be found in Barbara Gray's *Collaborating: Finding Common Ground for Multiparty Problems*. She describes collaboration as "a process through which parties who see different aspects of a problem can constructively explore their differences and search for solutions that go beyond their own limited vision of what is possible." In *Collaborative Leadership*, David Chrislip and Carl Larson offer a slightly different but also useful definition: **"It is a mutually beneficial relationship between two or more parties who work toward common goals by sharing responsibility, authority, and accountability for achieving results."**¹⁰⁴

The above definitions are individually true of both WT and IMT; together they paint a complete picture of the interactive dynamic. The precursors for collaboration are relatively well-defined. They incorporate democracy, inclusion, are hierarchy-free, and have team members who have a stake in the problem and are interdependent. Structural relationships must minimize/neutralize individual's political power, and a clear understanding among all parties regarding all participants' goals is essential. If the group fails to form a sense of temporary community, then discussions will degenerate into information exchange sessions rather than dialogue and synergistic creativity.¹⁰⁵ Collaborative efforts usually share these characteristics:

- Problems are ill-defined, or there is disagreement about definition.
- Stakeholders have a vested interest and are interdependent.

¹⁰³ Ibid, pg. 61.

¹⁰⁴ London, Scott, "Collaboration and Community," paper prepared for *Pew Partnership for Civic Change*; <http://www.scottlondon.com/reports/ppcc.html> [emphasis added] Last accessed, 12/17/04.

¹⁰⁵ London, Scott, *Collaboration and Community*, Pg. 5.

- These stakeholders are not necessarily identified a priori or organized in any systematic way.
- There may be a disparity of power and/or resources for dealing with the problems among the stakeholders.
- Stakeholders may have different levels of expertise and different access to information about the problems.
- The issues may be characterized by complexity/scientific uncertainty.
- Differing perspectives on the problems often lead to adversarial relationships among the stakeholders.
- Incremental or unilateral efforts to deal with the problems typically produce less than satisfactory solutions.
- Existing processes have proven insufficient.¹⁰⁶

Collaborative group characteristics very aptly describe the circumstances faced by IMTs, and constitute fruitful points of pre-incident discussion by IMT members.

E. PHASES OF THE COLLABORATIVE PROCESS

According to Barbara Gray in her seminal work devoted to collaboration, processes move through three somewhat distinct chronological phases.¹⁰⁷ These phased activities are interesting in the context of IMTs in that, though they generally occur sequentially, they can be uncoupled and grouped as pre-event and post-event modules.¹⁰⁸ Since Phase 1 and half of Phase 2 are accomplished “Pre-event”, they are appropriately designated “preparation.” The second half of Phases 2 and 3 are the “response” phases. They are incident-specific and cannot be accomplished until the “What, where, who, and how” are known, but should be considered when developing IMTs and the training curriculum. The following paragraphs combine Ms. Gray’s work on collaboration (in **bold**) and the author’s elaboration on her work in the context of UC:

1. **Phase 1 (Pre-Event)**—“Pre-negotiation Phase” or “Problem Setting Phase.” Six issues need to be addressed:
 - **The parties must arrive at a shared definition of the problem, including how it relates to the various stakeholders.** This issue is the negotiated reality of how the IMT perceives its role, and what types of incidents it is likely to face. Practicing together (exercising) brings into play the active imagination required to

¹⁰⁶ London, Scott, *Collaboration and Community*, Pg. 3.

¹⁰⁷ Gray, Barbara, *Collaborating: Finding Common Ground for Multiparty Problems*, Josey-Bass Publishers, San Francisco, (1991) pg. 57.

¹⁰⁸ Since collaboration ability of teams is the primary barometer of likely success, I will present this discussion in the context of what Phases and issues may be best accomplished pre-incident by a designated regional or local IMT—even though the detailed discussion of IMTs does not follow until later in this thesis.

“see” themselves perform successfully as a unit. Shared experience and problem definition process assist individuals to understand their role and contribution.

- **The parties must make a commitment to collaborate.** This commitment can only be understood in its entirety (and therefore binding) if all of the parties have had opportunity to raise and answer all of their questions about what is required for team membership.
 - **Other stakeholders must be identified whose involvement may be necessary for the success of the endeavor.** At this point the team has the opportunity to evaluate the assembled talents/skills and project any unmet needs in the context of a menu of perceived problem. Another potential benefit is a formal gap analysis inventory of skills immediately available if the incident type experienced is not one the team has exercised on. This knowledge becomes apparent as the team works its way through various field and table top exercises.
 - **The parties must acknowledge and accept the legitimacy of other participants.** Credentialing and trust-building are vital in this step of team formation. It can only happen in the context of personal history between IMT members—this issue may be the most cogent argument for the formation of regional IMTs.
 - **The parties must decide what type of leader or convener can bring the parties together.** Leadership issues settled prior to event occurrence dissipates power struggles on the scene. Pre-designated IMTs must guard against domination by strong personalities or persons with exceptional expert power in a particular area.
 - **The parties must determine what resources are needed for the collaboration to succeed.** At this stage the IMT has the opportunity to designate resources to stage close to where they may be needed. This is a planning/logistical exercise that, if executed in advance by the team would dramatically reduce the time required to obtain critical resources. This stage is also where appropriate mutual aid and automatic aid agreements/MOUs should be evaluated and executed.
2. **Phase 2 (Pre-Event)**—Direction-Setting Phase. This stage also has six issues to address:
- **The parties must establish ground rules.** This phase sets the manner in which the team agrees to operate. If a group functions together for a sustained period of time, it will develop its own culture. This step can take some time, and is obviously facilitated if it occurs in the context of a pre-designated IMT that works and drills together on a regular basis. If this step, in particular, must occur under the time and stress pressure of an emergency incident, misunderstanding and conflict are likely.

- **Setting the agenda.** The agenda is what the IMT hopes to accomplish in the pre-incident phase. In an IMT environment, setting the agenda refers to team agreement on a training schedule and objectives. The output of this step is a combined program of classroom instruction, team-building exercises, and table top and field exercises.
- **Organizing subgroups.** There are multiple applications and many potential configurations within the whole. These may be ICS specialty-related groups (e.g., Logistics, or Plans Section), Work Shift/Operational Period groups, or discipline-specific subgroups (e.g., FS, LE, EMS, or public health). Designating subgroups adds clarification to team roles, and bonds individuals to those with whom they will be immediately working.¹⁰⁹

Pre-Negotiation and Problem Setting are clearly team activities that are best accomplished in low-stress, pre-incident environment. The urgency of a CI will not allow thoughtful and progressive accomplishment of collaboration steps, making inter-organizational conflict, inefficiency, and lack of scene safety much more likely.

3. **Phase 2 (Post-occurrence)**—These issues cannot be worked out ahead of time, although exercises may simulate many of the specific decisions that must be made by the group and may speed reaction time and ease stress since the thought processes and decision points have been previously experienced by the team, even if only mental simulation.
- **Undertaking a joint information search to establish and consider the essential facts of the issue involved.** The first activity upon arrival of the command team will be to conduct reconnaissance and receive reports about situation status and resource status (the fire service calls this step “size up”). It is essential that the IMT understand the total situation and establish a common definition of the problem.
 - **Explore the pros and cons of various alternatives.** This step involves the design of a common incident strategy, and is the first point of potential conflict. This step is also where experience as a WT will immediately pay dividends. Specialty knowledge is also at a premium at this point as individuals evaluate the situation from the perspective of their discipline (e.g., patient care, fire control, material confinement, perimeter security, etc).
 - **Reach agreement and convey a course of action.** The group must be fluent in making accurate, quick decisions, often with a void of information. Consensus is the rule by which a strategy must be defined and conveyed to subcommands.

¹⁰⁹ London, Scott, pp. 7-8.

4. **Phase 3 (Post-occurrence)—Implementation Phase.** What has been decided must be communicated to various constituencies.
 - **Participating groups or organizations deal with their constituencies.** Decisions within the IMT are made continuously in an ongoing response to the situational needs, and also in planning meetings for upcoming operational periods. Once made, plans must be communicated to subcommands, best accomplished through chain-of-command and routine channels of participating organizations, and through the established protocols of ICS.
 - **Parties garner the support of those who will be charged with implementing the agreement** [action plan]. Feedback from the planning group is incorporated into the strategic framework to form the tactical objectives.
 - **Structures for implementation are established.** The ICS structure is expanded to accommodate the Incident Action Plan (IAP). Supervisors are appointed to lead subgroups, and chain-and unity-of-command principles are established.
 - **The agreement is monitored and compliance is ensured.** Information is received by the IMT about progress in accomplishing the provisions of the IAP during each operational period (typically 12 hours). This information is then used to determine the IAP for the following periods. The quality control system consists of reports of progress from functional area supervisors.¹¹⁰

F. CONCLUSION

Chapter IV has focused on the peculiarities of the UC environment and on establishing the nexus between WT and IMTs. It has also detailed specific Phases of collaboration that should be addressed prior to response to a CI by any IMT. Linking WT and IMTs brings all of the literature about WT into play (by the Transitive Property of Equalities) for managing conflict. Chapter V further refines these ideas and expands them into the realm of Work Group effectiveness. It describes how effectiveness can be increased in IMTs by applying and adapting principles taught in current literature.

¹¹⁰ London, Scott, pp. 7-8.

V. AN ADAPTED MODEL FOR IMT EFFECTIVENESS

Chapter IV established the nexus between WT and IMTs. It also elaborated on the UC environment extant at a CI, explored literature citing desirable characteristics of WT/IMT members, and related those characteristics to IMT requirements. It devoted special attention to the vital skill of collaboration, and demonstrated how the pre-incident phases of the collaboration process may be applied to IMTs.

Chapter V makes application of the factors discussed in Chapter IV to the issue of team effectiveness. To demonstrate it uses a published model—Hackman’s Model of Workgroup Effectiveness. The chapter then offers adaptive criteria to the existing Model that narrows its scope from the macro realm of group effectiveness, to the micro application of IMT effectiveness—that is, from the set of all groups to one specific type, the IMT. Using the adapted Model, the chapter is concluded by proposing a model demonstrating the interrelationship and union of social/team and technical skills to prevent conflict and contribute to a well-rounded IMT training curriculum.

A. BLENDING WT AND IMT THEORY: HACKMAN’S MODEL

Hackman’s Model of Work Group Effectiveness¹¹¹, introduced in 1988, is useful for understanding the components that interact to produce a successful WT outcome. Hackman’s Model does not purport to relate the factors to a particular group type (e.g., WT) when defining relevant factors for success, but employs a universalistic approach applicable on the macro level to relating work group effectiveness in all its manifestations. “The main concepts of this model are three activities: effort, knowledge, and appropriateness of the task performance strategies. An increase in these three activities should...improve the overall effectiveness of the group.”¹¹² These factors occupy the center of the diagram and comprise the “Process Criteria of Effectiveness” block. Three factors are antecedent conditions to the Process Criteria: 1) The Organizational Context; 2) The Group Design; and, 3) The Group Synergy. These three factors work with and support effort, knowledge and strategy, and, in the context of sufficient material resources, produce “Group Effectiveness.”

¹¹¹ Appelbaum, Steven H., Abdallah, Chahrazad and Shapiro, Barbara T., “The Self-Directed Team: A Conflict Resolution Analysis,” *Team Performance Management*, Vol. 5, No. 2, (1999): 60-77 (62).

¹¹² Ibid, pg. 61-62.

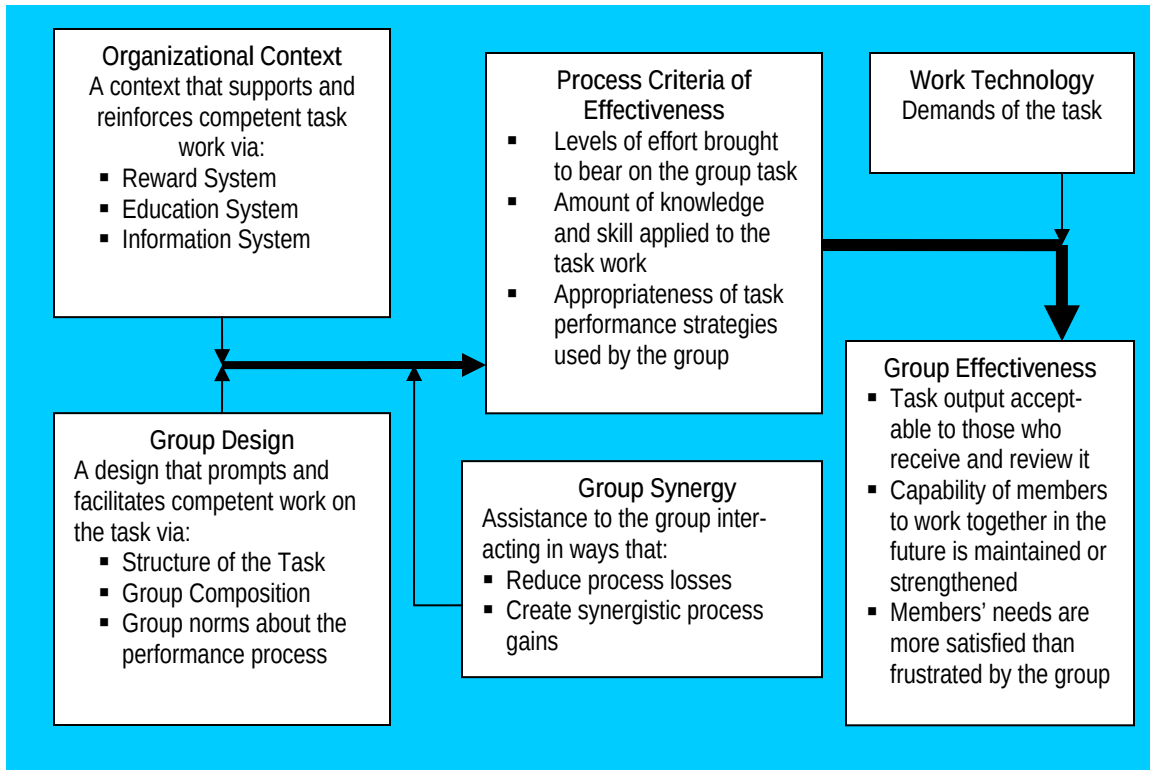


Figure 5.1. Hackman's Model for Work Group Effectiveness (1988)

Hackman's Model is pertinent to the discussion of IMTs because, as either an ad hoc or an established IMT, the Process Criteria of Group Effectiveness are identical (albeit in a different context). The Group Effectiveness criteria are also useful measures of IMT success. Implicit in this thesis is the assumption that a higher quality of input criterion, applying identical processes, will yield a superior output. An ad hoc team would not have the same pre-incident opportunity to develop the input criteria for an effective team output as would an IMT.

By applying IMT-specific criteria, the adapted Model also becomes useful for contemplating curriculum design for training IMTs. That is, if the outcome desired is IMT effectiveness, and assuming that this outcome is the result of some set of raw input and applies some specified process to manipulate that input, then intentional ordering of the input criteria should improve effectiveness. There are four primary criteria for the IMT members to affect the raw skills available within the IMT: 1) Personnel selection (individual traits and style); 2) Rank and position in the organization (authority to commit resources); 3) Emergency discipline involved (domain of expertise); and, 4) Initial/on-

going training (technical and team skills). All are important, but this thesis focuses on the training factor (#4). The design of training curriculum is the best opportunity to increase the probability of IMT effectiveness once personnel are selected.

The component categories of the “Process Criteria of Effectiveness” block and the “Group Effectiveness” block are universal in WT application. However, it is possible to blend Hackman’s Model and WT/IMT theory to apply specific criteria to the antecedents of the “Process Criteria of Effectiveness” stage (e.g., the Organizational Context, Group Design, and Group Synergy). Using Hackman as a beginning point, the following “friendly amendment” adaptations are offered, retaining the major headings but adapting the sub-criteria to customize them for IMTs.

B. ORGANIZATIONAL CONTEXT

The Organizational Context is the structure, culture and qualification/training/ preparation from which the response and mitigation effort flows. Since emergency task performance has a beginning and end (unlike the business context application of the model), and since excellent performance at a CI carries its own intrinsic motivation, the rewards

system criteria in Hackman’s Model is not vital, although ERPs are often recognized for heroic performance. [Negative rewards, such as the specter of a blistering Congressional After Action investigation can also be motivating!] It is vital that individuals fulfilling a role within the IMT complete relevant training within a recognized system and have received certification that validates their qualification. ICS certification is very important in the universe of emergency response, and the National Wildfire Interagency Coordinating Group established a “Red Card System” whereby individuals may meet pedagogical (classroom) and andrological (“shadowing”) criteria, and demonstrate mastery on a recognized credential (the “Red Card”).

Hackman’s “Education System” in the Adapted Model is divided into two distinct phases. Initial Task Certification is different from Continuing Education/ Exercising because of the on-going nature of the latter. Tabletop and field exercises are particularly important for incident preparation because, although each is unique, conditions and

Organizational Context

A context that supports and reinforces competent task work via:

- ICS Task Certification system
- Network of Federal, State and local Preparedness
- Continuing Education/ Exercising System
- Information/Communications System
- Authority to speak for the member's agency and commit resources

decision processes of mitigation can be simulated to increase decision quality and provide an opportunity for performance feedback for participants. The process that emergency responders use to make decisions under stress is called Recognition-Primed Decision Making (RPDM), and relies heavily on mental “slides” of past experience to guide them through current circumstances. Research has shown that exercises can provide referential experience from which quick decisions can be made. RPDM occurs when responders do not have time to move through each of the steps associated with rational decisions; instead, they size-up and develop situational awareness until recognizing the right thing to do, then act based on the nearest match between the event and the mental catalogue of experiences. Exercises facilitate RPDM by increasing the number of mental “slides” in the responder’s tray and teach them to respond to experiences that have yet to be experienced in reality, but have been mitigated in the training room.

All major incident planning post-9/11 must include DHS and DoD documents issued in the past two and one-half years, particularly the NIMS and NRP. IMT training must include a detailed study of Federal interaction and resources available to the Team. Also helpful would be an introduction to civil-military relations/interaction.

The Information/Communication System could not be more critical than under the conditions of a major incident. It is not melodrama to characterize them as a matter of life and death. Technical components are stressed by the urgent communications system “log jamming” that accompanies emergencies. The “fix” for information exchange challenges is communication plan development and practice prior to the need for it.

Communications considerations are not limited to technological solutions. Communication style can have a dramatic influence on group interaction. A pre-established IMT that has the regular opportunity/responsibility to perform in tabletop and field exercises also has the opportunity to adapt to one another’s communications style.

The final aspect of organizational context is the authority for an IMT member to speak for his/her organization and commit resources. Without this authority, decision-making processes are slowed at times when speed may be essential. Committing resources is tantamount to spending money, and may siphon funding from other needs. If the IMT member is not the head of the organization, the IMT should seek and receive clarification about his/her authority in these areas prior to deployment.

C. GROUP DESIGN

The NIMS' self-stated purpose is to provide a template for incident organization. That fact would seem to lessen the importance of group structure as a criterion

Group Design
A Design that prompts and facilitates competent work on the task via:

- Structure and complexity of the task
- Composition of the IMT
- Group norms about performance process

for effectiveness, were it not for another, equally cogent fact. The ICS is nothing if not flexible, and that flexibility makes the issue of group design crucial. Structure is at the heart of the system, and the four chambers of this heart are modular organization, chain of command, unity of command and span of control. These principles determine reporting and supervisory relationships—both vital to maintaining safety and accountability in the chaos of an incident.

The structure of the management organization is inexorably linked to the task complexity. It is axiomatic that a complex and high-profile problem attracts greater participation by assisting agencies and results in an expanded structure. This structure then, bears directly on the makeup of the UCT. The rule of thumb is that all primary jurisdiction agencies should be represented in the UCT, but representatives from assisting agencies must reach consensus about UCT makeup. The prerogative to decide to include or exclude team members theoretically belongs to no one, and everyone. In a perfect world, representatives from assisting agencies would also be members of the IMT.

Finally, Group Norms are a very sensitive area for effective functioning, and one in which inevitable group conflict is most preventable for pre-established IMTS. Perhaps the biggest disadvantage of ad hoc teams is their lack of opportunity prior to the stress of the incident to establish group functional norms. This tedious task cannot be avoided, but it can be worked out prior to an incident at the team's leisure in the classroom.

Many of the norms are institutional within ICS, and to the degree the roles have been practiced, adaptive pressure may be lessened. However, no emergency planning or training manual can cover the minutia of interactive norms over the course of a multi-operational period incident. One of the strengths of the WT is the group's interdependence. Interdependence relies on trust and knowledge of teammates' patterns of thought and behavior. Thus group norms are the "glue" that holds the team together.

D. GROUP SYNERGY

The most intangible factor affecting process effectiveness is Group Synergy. It is also one where definition of WT skills can add value to current training practices. Synergy is formally defined as “[A] mutually advantageous conjunction or compatibility of distinct business participants or elements.”¹¹³ The colloquial definition is “1+1=3”, or, “The whole is greater than the sum of the parts.”

Group synergy

Assistance to the group by interacting in ways that:

- Reaches consensus decisions
- Resolves conflict constructively
- Spirit of cooperation
- Engages in dialogue, not debate
- Preserves legal and moral agency accountability
- Promotes personal and professional knowledge and respect (social capital)
- Shares a sense of pride for being involved in a worthy effort

Synergy is the fuel of a “self-propelled team”—that accomplishes its mission by group effort and inter-reliance without external impetus. Team members draw energy from the engagement, talents, skills, creativity and compatibility of group processes. In such an environment, interpersonal trust and individual skills tend to exceed personal and interpersonal expectations, giving the illusion of organizational magic.

However, operationalizing synergy is not nearly as mysterious as it first appears. Synergy components can be trained, and the environment within which it appears can be reconstructed as carefully as a delicate ship in a bottle. Deconstructing synergy, though prosaic, can fill in missing segments in the roadmap to UC success.

A synergistic team has the skill of reaching consensus without overpowering one another. A synergistic team is reasonable; it does not take positions to defend, but searches for common interests to satisfy. Group synergy is preserved in an atmosphere that considers others’ moral and legal imperatives, and seeks strategic solutions to satisfy them. Interpersonal and professional knowledge promote synergy by encouraging cooperation and maintaining relationships. It acknowledges the inevitability of conflict, and agrees to use conflict as a stepping stone to greater unity. The team learns how to dialogue, and not just exchange information. Finally, a synergistic team is connected by a strong bond—a sense of pride that comes from being part of a worthwhile effort, and ownership in the quality of the outcome—not only the result, but the process as well.

With the foregoing sections in mind, a friendly amendment to Hackman’s Model

¹¹³ Merriam-Webster Online Dictionary, <http://webster.com/cgi-bin/dictionary?book=Dictionary&va=synergy&x=12&y=17>, (Last accessed, 12/17/04).

specific to IMTs and a CI environment is offered (see Figure 5:2). The adapted model bridges between work group research and IMTs as a form of WT. The three blocks on the right side of the model are, for the most part, unchanged because they are universal to all WTs. The left side blocks have been adapted to reflect the initial formation, initial training and continuing training of the IMT, including characteristics of WTs that should be included in the training and development of the team.

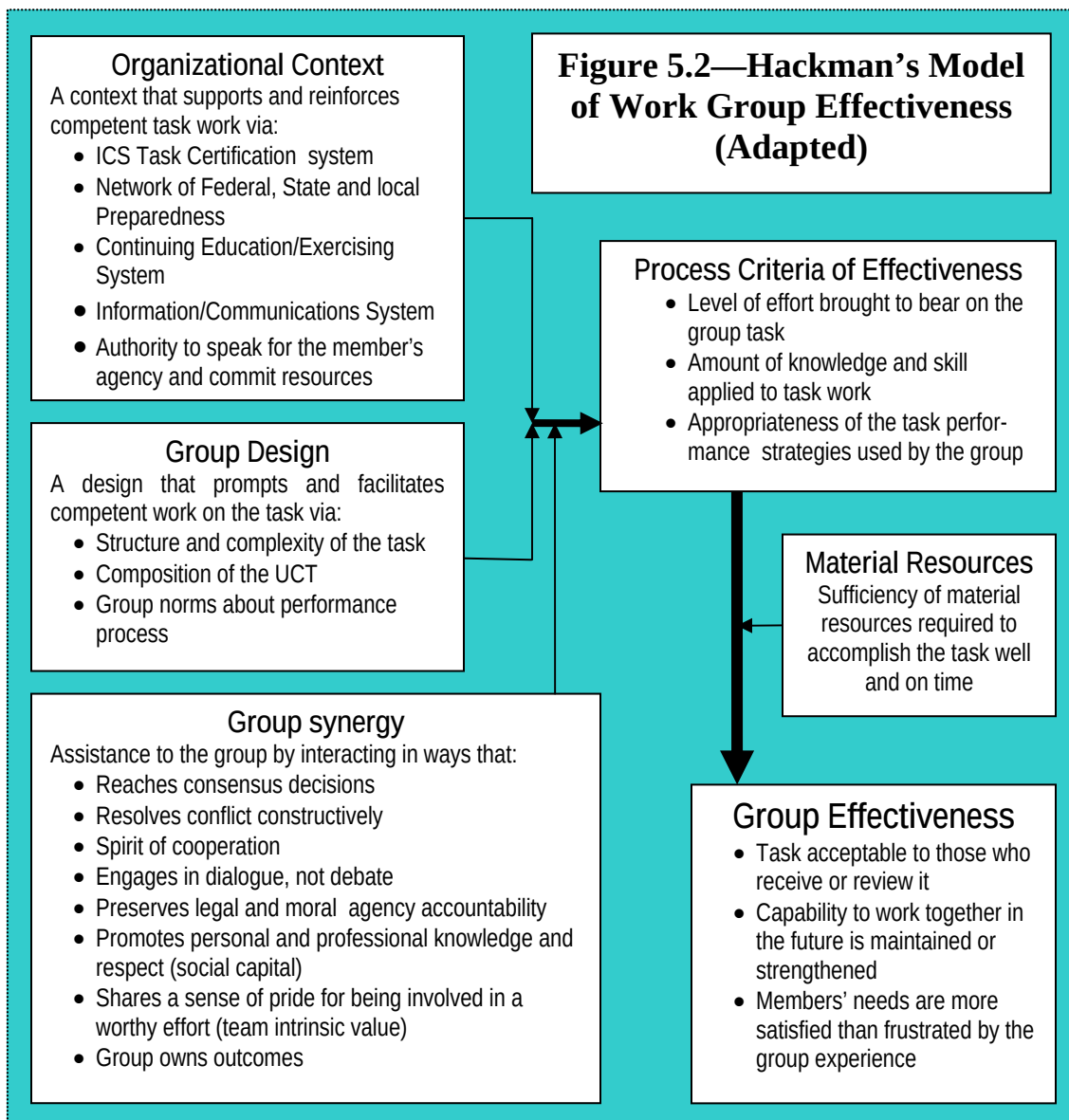


Figure 5.2. Hackman’s Model of Work Group Effectiveness(Adapted)

E. CP CONFLICT FAULT TREE DIAGRAM (CPCFTD)

Assuming that the type of IMT cultural conflict described in Chapter 2 decreases Team efficiency, understanding how elements interact as a system to contribute to the total problem of CP conflict is important. The Systems View of a problem is not always apparent—one method for exposing the relational components (Systems View) of conflict is to use a Fault Tree Diagram (FTD). A FTD reveals component interaction and ever greater levels of detail while moving from the top level of the diagram, through the logic gates of “and” or “or,” to the lowest component level of detail desired. At each level, the question “What Y must happen for X to occur?” where Y is a sublevel below X, and is therefore a component of X is asked. Repeating this process at each level leads from the global issue at the top of the diagram (CP Conflict) to the individual elements addressable by the intentional intervention of training.

The interaction of three elements determines the level of CP conflict. Like the Phases of Collaborative Process discussed in Chapter 4, some of the three elements can be mitigated pre-incident through IMT formation and training processes. Figure 5.3 is a Fault Tree Analysis depicting four levels of derivate analysis to deconstruct the question, “What is to happen if Command Post Conflict is to happen?” Each subsequent diagram block gives greater detail contributing to the understanding of the block above it.

Considering the initial question, “What must happen for CP conflict to happen?” three elements govern: 1) Organizational Elements, 2) Individual Elements; and, 3) Situational Elements (Level 2 of the diagram). Compared to the raw input stage of Hackman’s Model, the CPCFTD viewpoint considers a different outcome. Whereas Hackman concluded three factors—Organizational Context, Group Design and Group Synergy—contribute to efficiency (accentuating the positive, if you will), the CPCFTD focuses on avoiding the negative of conflict. The two together result in a well-rounded, multi-dimensional approach to problem-solving for training curriculum purposes.

Situational Elements present limited opportunities to control the emergency scene. Both Environmental and Contextual features (Level 3) often cannot be mitigated, but identifying them helps to lessen their effects through planning, training, equipment purchase and relationship building.

Level 3 of the CPCFTD also supports this chapter's previous assertion that there are four primary criteria determining the raw skills available to the IMT from members: 1) Personnel selection; 2) Rank and position in the organization; 3) Emergency discipline involved; and, 4) Initial/on-going training. These four criteria represent the opportunity to affect the outcome by controlling the input to the IMT. Level 3 addresses two of the four criteria. The opportunity to influence personnel selection is represented by the "Trait Based" column under "Individual Elements." Traits, in this sense, are intrinsic features to individual candidates, and are not typically items that can be trained.

Those team member elements that are most under the control of those responsible for forming the IMT are those on the left side of the diagram labeled "Trained Technical Skills" and "Trained 'Soft Skills'." Both categories consist of knowledge, skills and abilities that can be imparted to willing students. These skills are divided into categories relating to the organization itself, the members forming it, and comprise the bulk of the proposed foundation of IMT training. The following describes each category's purpose:

- **ICS/Technical**—this category is the body of ICS knowledge that is currently being recommended in the IMT training roadmap. It refers to the already existing training curriculum, and also references the potential for Command conflict when answering questions relating to strategic and technical direction on-scene.
- **Structural**—also part of the current curriculum, this category describes the organizational aspects of the ICS. It addresses standard functional roles and responsibilities of each position.
- **Cultural**—the cultural branch refers to the organizational culture of the new IMT as it develops. This branch represents the "Cultural Intelligence" education of the Team referenced in Chapter 3. As the IMT builds its culture, the topics addressed in this category form the nucleus of how the organization works together, how the members tackle problems, understand each others' roles and contributions, and reach a negotiated agreement on the "working personality" of the team.
- **Style-Based**—whereas the Cultural category refers to the organization, the Style-Based column speaks to distinguishing qualities of individuals. "Styles" in this usage are trainable aspects of how the individuals within the IMT relate to each other and perform their duties.

Though beyond the scope of this thesis to recommend a specific curriculum structure the information in the two models presented in this chapter form the philosophical base for expanding the current technically-based IMT curriculum. Altering the current "training roadmap" according to the Models would result in a better-rounded team skills curriculum.

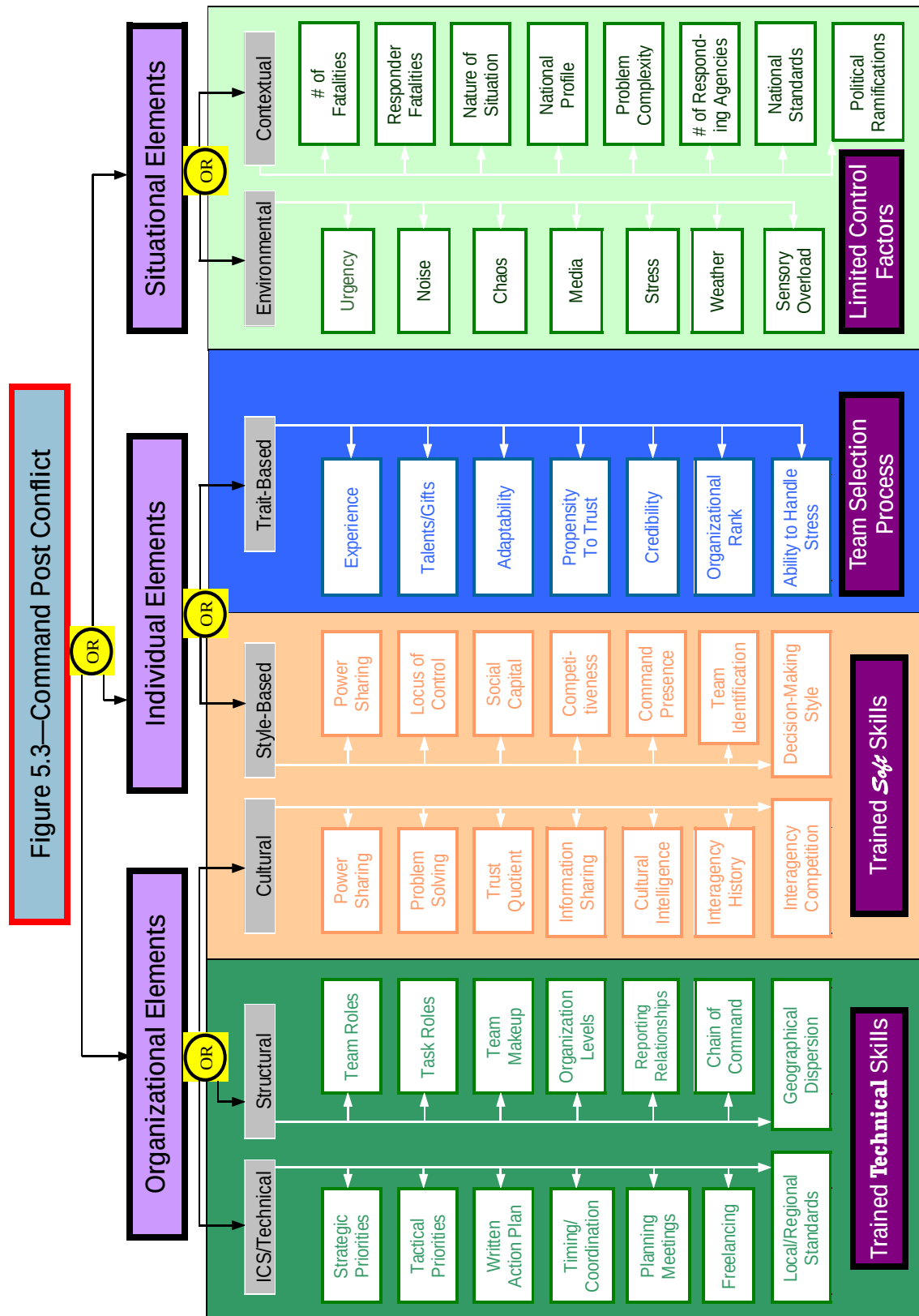


Figure 5.3. Command Post Conflict FTD

VI. CONCLUSION AND RECOMMENDATIONS

IMTs are an important piece of America's preparedness for CIs. This thesis has shown that these teams are an emerging standard for incident management, are required of all Federal participation and funding, and are being recommended for regional and local formation. But as they proliferate, they must have complete training (that is, beyond mere technical skills of ICS), continuous exercising, and team members must commit to dedicate time to the total development of team dynamics and social capital.

As noted by Alan Brunacini, Fire Chief of the Phoenix, AZ Fire Department, "Unified Command begins at lunch." This thesis draws the correlation between the "soft skills" in Work Team theory and their usefulness in a Unified Command context. Although they operate in the parallel universes of business and emergency response, the two team types can learn from one another. However, the characteristics and skills of WTs are better researched and identified. Some of the skills identified from the literature are collaboration, power sharing, consensus decision making, dialogue, team pride and ownership of outcomes, and the ability to build social capital.

In order to define the applicable subset of WT characteristics and skills, I began with a published model of WT effectiveness. Then, applying published principles and my own command experience, I adapted the model to reflect specific characteristics of an IMT. The adaptation points to specific areas of instruction which may be added to current ICS curriculum for IMT training to "round out" the skills necessary to function in an IMT environment.

A. SUMMARY QUESTIONS AND ARGUMENTS

1. What is the Impact of Occupational and Cultural Differences among First Responders?

Chapter II was dedicated to discussing the organizational and occupational differences that exists between ERPs. The knowledge is vital to ERP CP representatives because it is critical that each member of the IMT understand that the other members representing the other disciplines view the world—and therefore the problems presented by a CI—dramatically differently. The understanding becomes all the more important when the topic of discussion is putting the three (or more) ERP disciplines together in the

same CP, throw in an assortment jurisdictions, private sector interests, and a plethora of representatives (typically strangers to the local first responders) from State and Federal government, then cook the mixture under the high heat of catastrophic incident stress.

The extant inter-occupational cultures are supported by a foundation of myths, schemas and organizational history. The relationship between local ERPs can be equated with natural family sibling rivalry, with each discipline fighting for its place in the local “Hero’s Story.” Usually the verbal jostling is good natured—at least on the surface—but there is potential for serious consequences without pre-incident relationship development by IMT members. To counteract the potential disruptive conflict I propose adding a “cultural intelligence” portion to the IMT curriculum dedicated to sharing openly any pre-existing animosity, and promoting a better understanding of the origin of each discipline’s interests and contributions to the Team.

2. How Comparable are Work Teams and IMTs/UCTs?

Colloquial wisdom contributes to society the “Walks like a duck, quacks like a duck...it’s a duck!” rule of thumb. Chapter III laid the groundwork for IMTs as a collective strategic response to CIs, and in particular to the problem of terrorism. Particular attention was paid to how a team’s approach to preparation is the appropriate strategy. Chapter IV discussed WTs, how they function, and described how well fitted they are for a UC environment such as exists at a CI. Chapter V made further application from current literature regarding WT effectiveness, and how a universal effectiveness model (Hackman’s Model) could be easily and appropriately adapted for IMTs.

The concept of WTs evolved in the realm of business to meet the challenges of a complex environment, to blend the contributions of multiple problem perspectives while engaging goals important to the consortium, to build a functional paradigm of collaboration between former competitors, and/or to take advantage of efficiencies offered by a multi-disciplined approach. There is no more apt description of the challenges faced ERPs at a CI than those cited as reasons for WT establishment.

3. To What Extent is the Body of Literature Pertaining to Work Teams Applicable to the Function of IMTs/UCTS During a CI?

The author’s understanding of the purpose of IMT formation is to provide a core team of leadership to set goals and strategy, and direct activities that speed recovery from a major incident. Chapters II, III, IV and V cited a considerable body of literature to

promote the philosophical connection between WT's and the IMT. By connecting the purpose, mission, challenges and environment of WT's and IMT's, the accompanying literature is also connected by the Transitive Law of Equalities.

Responding to the environment is a key concept for both WT's and IMT's. The motivation for businesses and non-profits to form WT's is different from ERPs, and the particulars of the business environment faced by each may be dramatically different—e.g., making widgets versus recovering from the chaos of collapsed skyscrapers. However, they share in common the underlying issues of complexity, multiple players, and the absolute need for collaboration. They also share the human psychological and sociological response to diverse challenges.

Much of the existing literature concerning IMT's is still dedicated to cajoling ERPs into working together rather than describing the inner working of teams. The WT literature is far advanced in describing human/team response to challenges. Understanding the psychological/sociological response is more important in determining the actor's role in the drama than the arena in which it is played out. Public service agencies need to recognize the considerable advantage of being able to ride the coattails of business and non-profit agencies that have not only established WT's as a way of doing business, but have deconstructed and published information concerning them as well. ERPs and the Federal government bureaucracies that support them (DHS, FEMA, ODP, etc.) should recognize the work already done by academia and business, and leverage this considerable advantage by devoting resources for studying how the advantages of WT's might be better and more completely applied to IMT's. This thesis suggested a model—itsself a derivative of the existing literature—to serve as a pattern of measuring IMT effectiveness, and another to serve as the beginning point of discussion and study for expanding the current curriculum.

B. RECOMMENDATIONS

Based on the results of this study, I make the following recommendations:

- 1) Metropolitan areas able to do so should form and train IMT's.
- 2) IMT initial and on going training should include material on the concept and skills of collaboration, consensus decision making, and team building in a national standard curriculum for IMT's.
- 3) The national standard should include a standard schedule for routine table top and field exercises for IMT's to maintain skills and certification, and to

- promote “well-oiled” team dynamics.
- 4) IMT initial and on going training should include material on the legal and moral accountability of each participating agency in a national standard curriculum for IMTs.
 - 5) Each IMT should be encouraged to meet regularly in social settings to promote personal and professional knowledge and respect.
 - 6) IMT members should increase their Cultural Intelligence by openly discussing organizational, occupational culture, and historical issues between ERPs that can create misunderstanding and lead to conflict.
 - 7) A nationally recognized certification system (similar to the National Wildfire Coordinating Group “Red Card” System) specific to IMTs should be developed.
 - 8) Jurisdictions should plan for the timely replacement of initial incident commanders at CIs with certified IMT members.
 - 9) The regional/local IMT formation process should include (at least) the aspects of collaborative process detailed in Chapter 4 of this thesis.
 - 10) The U.S. Office of Domestic Preparedness should commission further studies to enhance the theoretical/academic base for IMTs.

Further research on effective performance specific to Incident Management Teams in unique context of Unified Command should be performed. Emergency Response Providers, DHS and ODP have a common interest in developing the genre and more extensively applying what is known about team effectiveness to IMTs.

Another area where further research is needed is increasing Cultural Intelligence among those likely to interact at the CP of a catastrophic incident. The study should probe the depths of O/O culture conflicts between ERPs, and should also be expanded to include cultural differences between levels of government, and public vs. private sector perspectives.

LIST OF REFERENCES

CHAPTER 1

Appelbaum, Steven H., Abdallah, Chahrazad and Shapiro, Barbara T., The Self-Directed Team: A Conflict Resolution Analysis, *Team Performance Management*, MCB University Press, Vol. 5, Number 2, (1999) 60-77.

FEMA, *Responding to Incidents of National Consequences*, FA-282-May 2004 <http://www.usfa.fema.gov/downloads/pdf/publications/fa-282.pdf>. Last accessed February 28, 2005.

Kirkman, Bradley L., Shapiro, Debra L., The Impact of Cultural Values on Employee Resistance to Teams: Toward a Model of Globalized Self-Managing Work Team Effectiveness; *The Academy of Management Review*, Vol. 22, No. 3 (July 1997), 730-757.

Thoms, Peg, Moore, Kirsten S., Scott, Kimberly S., The Relationship Between Self-Efficacy for Participating in Self-Managed Work Groups and the Big Five Personality Dimensions, *Journal of Organizations Behavior*, Vol. 17, No. 4 (July 1996) 349-362.

Ridge, Tom, Transmittal Memorandum for Cabinet Secretaries, et al; *National Incident Management System*, U.S. Department of Homeland Security, March 2004.

U.S. Department of Homeland Security, *National Incident Management System*, March 2004, pg. 138.

U.S. Fire Administration, *Incident Management Team Training, IMT Roadmap*, <http://www.usfa.fema.gov/about/media/2004releases/011504.shtm>. Last accessed February 18, 2005.

U.S. Department of Homeland Security, *National Incident Management System*, Washington, D.C., (March 2004), www.DHS.gov, last accessed February 18, 2005.

U.S. Department of Homeland Security, *National Response Plan*, Washington, D.C. (Nov., 2004), www.DHS.gov pp. 1-430 (63). Last accessed February 18, 2005.

CHAPTER II

Ouichi, William G., Wilkins, Alan L., Organizational Culture, *The Annual Review of Sociology*, Vol. 11 (1985), pp. 457-483.

Hatch, M.J., The Dynamics of Organizational Culture, *The Academy of Management Review*, Vol. 18, No. 4 (October 1993), pp. 657-693.

Merriam Webster Online, <http://www.m-w.com/cgi-bin/dictionary?book=Dictionary&va=schema&x=17&y=14>, Last accessed March 5, 2005.

Schein, E.H., Organizational Culture and Leadership (2nd Edit.). San Francisco: Josey-Bass, 1992, pg. 12.

Schein, E.H., Culture, the Missing Concept in Organizational Studies, *Administrative Science Quarterly*, Vol. 41, No. 2, 40th Anniversary issue (June 1996), pp. 229-240.

Harris, S.G., Organizational Culture and Individual Sensemaking, *Organization Science*, Vol. 5, No. 3 (August 1994) pp. 309-321.

Van Maanen, J. and Barley, S.R., Occupational Communities: Culture and Control in Organizations, *Research in Organizational Behavior*, Vol. 6, pp. 287-365.

Jackson, N.V., and Carter, P. The Attenuating Function of Myth in Human Understanding, *Human Relations*, Vol. 37, No. 7, pp. 515-533.

CHAPTER III

Althaus, Rickert R., and Yarwood, Dean L., Organizational Domain Overlap with Cooperative Outcomes: The Department of Agriculture and State and International Agricultural Policy During the Carter Administration, *Public Administration Review*, Vol. 53, No. 4, (July-August 1993), pp. 357-367.

Astley, W. Graham, Fombrun, Charles J., Collective Strategy: Social Ecology of Organizational Environments, *Academy of Management Review*, Vol. 8, No. 4 (October 1983), pp. 576-587.

Department of Homeland Security, Transmittal Message from President Bush dated July 16, 2002; *National Strategy for Homeland Security*.

IAFC/USFA Joint Press Release, *USFA Advocates Development of Incident Management Teams*, <http://www.usfa.fema.gov/about/media/2004releases/011504.shtm>. Last accessed February 19, 2005.

Ventratraman, N. and Camillus, John C., Exploring the Concept of “Fit” in Strategic Management, *Academy of Management Review*, Vol. 9, No. 3 (July 1984), pp. 513-525.

Nutt, P.C., Backoff, R.W., Strategy for Public and Third-Sector Organizations, *Journal of Public Administration Research and Theory: J-PART*, Vol. 5, No. 2 (April 1995), pp. 189-211.

Schermerhorn, John R. Jr., The Determinants of Interorganizational Conflict. *The Academy of Management Journal*, Vol. 18, No. 4 (December 1975), pp. 846-856.

Astley, W. Graham, Fombrun, Charles J., Collective Strategy: Social Ecology of Organizational Environments, *Academy of Management Review*, Vol. 8, No. 4 (October 1983), pp. 576-587.

Borys, Bryan and Jemison, David B., Hybrid Arrangements as Strategic Alliances: Theoretical Issues in Organizational Combinations, *Academy of Management Review*, Vol. 14, No. 2 (April 1989), pp. 234-249.

Van de Ven, Andrew H., On the Nature, Formation and Maintenance of Relations Among Organizations, *Academy of Management Review*, Vol. 1, No. 4 (October 1976), pp. 24-35.

Fombrun, Charles. Structural Dynamics Within and Between Organizations, *Administrative Science Quarterly*, Vol. 31, No. 3 (September 1986), pp. 403-421.

Donahue, Amy K., PhD., *Incident Management Team-All Risk Operations and Management Study*, Center for Policy Analysis and Management, Institute of Public Affairs, University of Connecticut, August 2003.

Gray, Barbara, Collaborating: Finding Common Ground for Multiparty Problems, Josey-Bass Publishers, San Francisco, (1991).

CHAPTER IV

Riley, Douglas J., Know Thy Neighbor—The Key to Unified Command. *Fire Management Notes*, Vol. 49, Number 1; (1988), pp. 8-9.

North, Robert C.; Koch, Jr., Howard E.; Zinnes, Dina A., The Integrative Functions of Conflict, *The Journal of Conflict Resolution*, Vol. 4, No. 3, (September 1960), pp. 355-374.

Kirkman, Bradley L.; Shapiro, Debra L.; The Impact of Cultural Values on Employee Resistance to Teams: Toward a Model of Globalized Self-Managing Work Team Effectiveness; *Academy of Management Review*, Vol. 22, No. 3 (July 1997), pp. 730-757.

Donahue, Amy K., PhD., Incident Management Team-All Risk Operations and Management Study, Center for Policy Analysis and Management, Institute of Public Affairs, University of Connecticut, August, 2003.

Appelbaum, Steven H., Abdallah, Chahrazad, Shapiro, Barbara T., The Self-Directed Team: A Conflict Resolution Analysis, *Team Performance Management*, Vol. 5, Number 2, (1999): pp. 60-77.

London, Scott, Collaboration and Community, paper prepared for *Pew Partnership for Civic Change*; <http://www.scottlondon.com/reports/ppcc.html> [emphasis added] Last date accessed, 12/17/04.

CHAPTER V

Appelbaum, Steven H., Abdallah, Chahrazad and Shapiro, Barbara T., The Self-Directed Team: A Conflict Resolution Analysis, *Team Performance Management*, Vol. 5, Number 2, (1999): pp. 60-77.

Merriam-Webster Online Dictionary,
<http://webster.com/cgi-bin/dictionary?book=Dictionary&va=synergy&x=12&y=17>, (Last accessed, 12/17/04).

INITIAL DISTRIBUTION LIST

1. Defense Technical Information Center
Ft. Belvoir, Virginia
2. Dudley Knox Library
Naval Postgraduate School
Monterey, California