

A STUDY OF EXECUTIVE DECISION-MAKING AT THE NATIONAL OCEANIC AND
ATMOSPHERIC ADMINISTRATION

by

JOHN VINCENT PRIMO

(Under the Direction of Theodore L Gragson)

ABSTRACT

The primary goal of this research is to increase our understanding of executive decision-making at the National Oceanic and Atmospheric Administration. I used direct observation to study the actual meeting activities of NOAA's highest executive councils from the fall of 2006 to the fall of 2007. My analysis engaged both a grounded theory approach and a case study approach. I interpreted my analytical results by applying a cultural view of organizations as comprised of multiple sub-cultures, and a conception of organizations as a set of dynamic social processes. In doing so, I identify and explain how particular executives use their cultural knowledge of organizational and governmental processes, as well as status and expertise, to direct executive decisions. In closing, I generalize my findings to those of other studies; provide suggestions for improving NOAA's business processes, and offer suggestions on future research.

INDEX WORDS: Organizational Anthropology, Natural Resource Management, Executive Decision-making, Elite Studies, and Bureaucratic Culture.

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B.A., The University of Arizona, 1992

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A Dissertation Submitted to the Graduate Faculty of the University of Georgia in Partial

Fulfillment

of the Requirements for the Degree

DOCTOR OF PHILOSOPHY

ATHENS, GEORGIA

2009

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DEDICATION

I dedicate this dissertation to my mother and father, Robert Nicholas Primo and Mary Josephine Lavigno Primo, for without their support, love, and understanding I would have not completed this most daunting of endeavors.

ACKNOWLEDGEMENTS

There have been many people who have helped me along the way. I will do my best to recognize and thank all of them below, however I am sure that I will fall short in meeting this objective.

My doctoral committee members, and particularly Ted Gragson and Susan Abbott-Jamieson, were essential to my success. They afforded me great patience, and faith in me during the seemingly endless quest to earn my PhD. My many friends - Missy, Jim, and Michaela Siegel, Frank Diorio, Laura Letson, Gene Kim, Thomas Street, Dave and Larami Weakly, Jon and Mary-Bennett Poehlman, Sami Grimes, Jack Nash, Margie Floyd, Topher Dagg, Todd Crane, Juana Camacho, 'Julita' Camacho, and 'Carlito' Tapia - provided boundless support and compassion in helping me make it through a number of life's valleys while working toward the completion of my degree. And, lastly I am grateful for the support of my entire family - including all of my siblings, in-laws, nieces and nephews, aunt, uncles, and my parents – and especially for the endless supply of understanding and patience they provided during my entire graduate education. There is no way that I will ever be able to repay the kindness these folks have shown me, however I do hope to 'pay it forward' as I move through my life.

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CHAPTER 1

INTRODUCTION

A Research Exploration

Although decision-making has been studied widely in the last century (Buchanan and O'Connell 2006), much of this research has involved studies of decision-making in *controlled*, rather than *live*, settings. Browne and others have argued that research on decision-making in controlled settings fails to capture the authenticity of live decision-making scenarios (Browne 1993: 88). Little research on the decision-making process of elite groups in live settings (e.g., a boardroom) has been conducted (Mintzberg et al. 1976; O'Reilly 1980; Pinfield 1986 as cited in Browne 1993: 88) because of a preference for laboratory research and the inherent difficulties of undertaking such a study — including the challenges of gaining access to decision-makers (Hertz and Imber 1995; Nader 1999 [1967]) — and the extensive time commitment required (Langley 2007). Because of the scarcity of research on actual decision-making, I have chosen this as my topic.

With this research I seek to understand the context, activities, and causes that characterize executive decision-making in the National Oceanic and Atmospheric Administration, a U.S. federal agency. More specifically, I seek to know exactly what goes on in board meetings — how executives deliberate and ultimately arrive at decisions. In conducting this research, I have identified the specific mechanisms or powers behind decisions and actions. I have also identified information that could contribute to the more effective working of NOAA and other governmental agencies.

My study focuses on the activities of four corporate councils at NOAA: the Ocean Council (NOC), the Research Council (RC), the Executive Panel (EP) and the Executive Council (EC). In particular, the research concentrates on the separate activities of the four councils, communication between council members and how the councils interact within the context of the Agency's official decision process, the Executive Decision Process (EDP). I conducted the study by observing the NOAA councils over a 14-month period from August 2006 to October 2007.

In recent years, scholars from various disciplines (Folke 2007; Kohm and Franklin 1997; Liebow 1995; Ludwig, Haddad and Mangel 2001; Ostrom 1990) have emphasized the importance of studying decision-making, policy-making and the internal workings of government agencies and their managements. These scholars assert that solutions to contemporary natural resource and environmental management issues lie in understanding and altering the practices of these institutions. While I do offer some suggestions for organizational change in this dissertation, the primary goal of the research is to increase our understanding of executive decision-making at NOAA. In meeting this objective, I identify and explain how the players use cultural knowledge of organizational and governmental processes, as well as status and expertise, to arrive at their decisions.

The Research Approach

I base my approach to understanding decision-making on identifying the values and beliefs of council members through recognizing terminological and conceptual patterns in their communication, and on identifying the processes that characterize the workings of the four councils. I conducted this investigation by executing a grounded theory study (Corbin and Strauss 1990) and a comparative case study (Eisenhardt 2002; Eisenhardt and Graebner 2007;

Miles and Huberman 1994). This research falls within a broad category of research traditions including inductive and intensive research, and several strands of organizational anthropology – ‘studying up’, studies of organizational culture, and studies of social process (Schwartzman 1993, 1989). The premise of inductive research is to derive theories, propositions, hypothesis and hunches from “on the ground” research (Eisenhardt 2002). This approach does not explicitly seek to test a hypothesis; rather it aims to discern the nature of the phenomenon under study through first-hand investigations. I ultimately seek to understand just how NOAA’s executives make decisions.

I use intensive research (Sayer 2000) to identify the mechanisms of social phenomena via a relatively focused longitudinal research design. As Sayer (2000: 20-1) notes, intensive research “...is primarily concerned with what makes things happen in specific cases.” I employ an intensive approach — numerous and diverse observations over a relatively long time — to capture the underlying social processes behind executive decision making at NOAA. Ultimately my research falls within the research tradition of organizational anthropology. This tradition has a long history, and I draw on three strands of research in this tradition. From a substantive stance I employ the perspective of organizational culture and conceive of organizations as vessels or containers of cultures (Fiske 1994; Gregory 1983; Schwartzman 1989). I also use a social process perspective as I view organizations as ongoing social processes. In studying the social interactions, relations, events and dynamics that are involved in the production, reproduction, and alteration of organizational life at NOAA’s headquarters, I gain an understanding of the social impetuses or forces and mechanisms behind decision-making, as well as an understanding of the social system in which the organization is embedded in (Conkling 1984; Giddens 1984; Schwartzman 1989; Weick 1979).

Finally, the spirit of my work draws on a critical strand within the tradition of organizational anthropology that centers on studies of policies, policy-makers and the powerful (Heyman 2004; Liebow 1995; Womack 1995). Laura Nader's call to action, *Up the Anthropologist — Perspectives Gained from Studying Up* (Nader 1999 [1967]), may be the most prominent piece of literature in this research area. As Nader challenges anthropologists to study contemporary organizations (i.e., corporations and bureaucracies) and their powerful leaders as they increasingly affect our daily lives. Since Nader put forth her challenge, a number of other anthropologists have called for more involved approaches to studying bureaucracies, corporations, non-governmental organizations (NGOs), their leaders and the policy-making process (Brosius in Reid, Berkes, Wilbanks and Capistrano 2006; Weaver 1985). Because NOAA is a world leader in scientific research, environmental monitoring, and natural resource management, its executive decision-makers are able to have a tremendous impact not only on Americans, but also on much of the world's population. It is for this reason that I use my dissertation to meet Nader's call to "study up."

Why Should I Study Executive Decision-making at NOAA?

NOAA is a compelling and timely case for my research because its formation, federally driven mission and substantive focus present a unique set of characteristics. Unlike many organizations in the private and public sectors, NOAA sprang from a union of three historically unrelated organizations. NOAA in its contemporary form provides an interesting case for a study of strategic decision-making, as it is no easy task to provide corporate strategy for an organization that houses, what were historically, different organizations/programs with different missions. In turn, while organizations in the private sector are ultimately concerned with profits, federal agencies, particularly one as diverse as NOAA, need to satisfy a variety of interests with

somewhat ambiguous and fluid objectives. NOAA's constituents are numerous and at times at odds with one another, as they range from fishermen, to environmentalists, to coastal homeowners, to the transportation industry. This diverse constituent base is bound to bring about some challenging and quite possibly controversial decisions. Perhaps the most interesting and unique characteristic of NOAA is that it sits squarely in the middle of some of the greatest issues and controversies of our time, including climate change, severe and erratic weather, depleted fish stocks, and the degradation of the world's oceans. These issues and a host of others provide the backdrop for some challenging deliberations.

Outline of Dissertation

The dissertation is divided into nine chapters; beginning with this introduction. In Chapter 2, I place my research within the scholarly tradition of organizational anthropology, and describe the way organizations have been theorized, conceptualized, studied and analyzed since the latter 1800s, and ultimately introduce the cultural and social theories I use to interpret my findings – i.e., organizations as social processes and containers of cultures, and decision-making via sensemaking. Chapter 3 begins with a description of NOAA's mission and the historical development of the Agency. I then describe NOAA's matrix management, followed by a description of the significant aspects of NOAA's structure, including its corporate council system, its planning and budgeting system, and its corporate decision-making process. I close this chapter by describing the focus of my research, and provide an explanation of the benefits of investigating executive decision-making at NOAA. Chapter 4 expands the previous chapter by providing an ethnographic description of the Agency's informal workings, including some of the cultural phenomena that characterize life at NOAA.

In Chapter 5, I describe my strategy for selecting my data sources, and the ethnographic methods I use to conduct my research. I then describe the analytical procedures I use – grounded theory and a comparative case study. This is followed with an explanation for the circumscription of my research, its merit, its replication, as well as with a description of the ethical standards I adhered to in this research. I conclude this chapter with a description of my place in the organization as a researcher and employee.

Chapter 6 is used to present the findings of my grounded theory study, and thus provides a view of the beliefs and values that characterize NOAA’s executive culture. In so doing, I present the terms and concepts identified by providing textual data collected from participant commentary and relevant documents. I place participant comments under the title of ‘what participants talked about’ into three categories including 1) concerns and challenges, 2) comments about members and their understandings of process, and 3) decision-making. I close this chapter with a discussion on the overarching category, “executive-driven decision-making.”

Chapter 7 presents the findings of my case study research — the processes and structures that characterize the workings of the four councils within the EDP. I began by identifying the four categories that are the basis of my case study analysis. I then describe my structural analysis of council meetings to identify the characteristics of a typical meeting for each council. This is followed by a description of my functional analysis on the four councils to identify the activities, dynamics and trends that characterize each council’s meetings. I go on to describe my systems analysis and present the specific resource flows I identified. This chapter ends with a description of the workings of NOAA’s EDP, which captures a broader and richer view of the decision-making process than the official descriptions provided in Chapter 3.

Chapter 8 displays a mock issue migration scenario that shows how an issue might flow through the councils within the EDP, and thus how decisions are made. I interpret my findings within the theoretical framework of sensemaking and highlight the social mechanisms behind decision-making at NOAA.

In Chapter 9, I sum up the causal mechanisms behind decision-making, assert the uniqueness of executive decision-making at NOAA, relate my findings to those of other studies in organizational anthropology, and provide suggestions for improving NOAA's business processes (including decision-making), as well as offer some thoughts on potential avenues for future research.

CHAPTER 2

LITERATURE REVIEW: THE ROAD TO A MULTI-CULTURAL, PROCESS VIEW OF ORGANIZATIONS

An Overview

In this literature review I illuminate the major theoretical and empirical trends that characterize the history of organizational anthropology in order to provide a historical backdrop from which to understand my research. These trends include shifts from conceiving organizations as closed systems independent of external phenomenon to viewing them as open systems embedded within larger systems, and from viewing organizations as machines to viewing organizations as organisms, and then to conceptualizing them as entities composed of multiple cultures. In this process, static views of organizations gave way to more dynamic views of organizations as ongoing sets of social processes, and micro studies gave way to macro studies and to studies that go beyond this dualism (Britan and Cohen 1980: 10-15; Gouldner 1959). My research uses the latter trends in this analytical and conceptual progression, that is, a multi-cultural, process centered conceptualization of NOAA as an open system embedded in a larger institutional and societal context with an emphasis on group sensemaking (Fiske 1994; Gregory 1983; Schwartzman 1989; Weick 1995).

In the following pages, I provide an overview of the roots of this specialization, starting with a description of the influences of early scholars on organizational anthropology and the historical significance of various schools of thought. I relate the ideas of Spencer, Weber and Durkheim to the Hawthorne Studies, and the Human Relations School (Galbraith 1977: 11-33;

Hamada 1994: 9-12; Schwartzman 1993). I then provide a brief sketch of developments in the 1950s and the 1960s. I follow this with a more in-depth discussion of the research trends that characterize the modern era of research in organizational anthropology – studies of organizational culture and social processes. I close this chapter with a description of the seven properties of sensemaking: a social process enacted when NOAA's executives make decisions.

The 1850s to 1930s --The Hawthorne Studies and the Legacy of the Organic and Mechanistic Models

The Hawthorne Studies represent a series of studies on the social relations of factory workers in the 1920s and 1930s and are recognized as the earliest application of anthropological techniques to the study of formal organizations. The legacy of this research tradition lies in the emphasis these studies placed on informal social relations and structures in the work place, and in their use of a related set of conceptual frameworks including, functionalism, Durkheimian organicism, and related systems concepts. The approach, concepts and trends manifest in these studies are in part reactions to previous schools of thought on organizations and in turn provide impetus for the development of the research that follows these studies (Scott 2001; Smirich 1983).

Prior to the Hawthorne Studies, classical and scientific management theories were in vogue, stemming in part from two historical views of society or social organization: one premised on nature or biology, the other on mechanization. These two views are identified, respectively, as the organic and mechanistic analogies or models (Scott 2001; Smirich 1983). Herbert Spencer (1895) is frequently credited with being the father of organicism. Spencer conceived of society as a biological organism that grew, developed, and undertook processes of differentiation, individuation, and the elaboration and mutation of both structures and functions.

While Spencer's theory of society was used to support such nefarious agendas as eugenics and the naturalization of societal injustices (Frazier, Margai, and Tettey-Fio 2003), it is also the progenitor of a long lineage of analytical and societal paradigms.

A different conception of organizations arose in the midst of the industrial era when Max Weber applied his mechanistic model of societal relations to formal organizations (Pfeffer 1985; Scott 2001). Through this conceptual lens, formal organizations were conceived of as machines that were governed by a rational-legal ethic embodied in rules, standard operating procedures, the specialization of labor, hierarchical command, merit based appointments, impersonal and contractual relations, and documentation. These practices and relations worked like a machine as processes were connected in a lineal manner and could be altered or fixed individually without regard for other parts of the organization. "As logically designed social structures, bureaucracies could equitably meet the organizational and administrative needs of complex societies. Their cold, mechanical efficiency was a necessary compliment to machine-age technology. They provided precision, speed, and unambiguity, eliminating from official business love, hatred, and all purely emotional elements" (Weber 1947 as cited in Britan and Cohen 1980: 10). In addition, implicit in Weber's conception of organizations was the idea of a closed system that was independent of external phenomena (Scott 2004: 10). This approach to management and organizations was viewed as a move away from earlier conceptions centered on traditional or charismatic relations (e.g., familial, cultural, cronyism and nepotism). Ultimately, Weber's mechanistic model emphasized the formal aspects of organizations, procedures, rules, social relations, and structures, over their informal counterparts.

Emile Durkheim (1947 reprint) is recognized for his use of the organic analogy, albeit his interpretation and application of this model is not as literal as Spencer's. Durkheim interpreted

the analogy in light of concurrent trends within social theory at the time. His version of organicism was steeped in the logic of structural functionalism. He conceived of society as an organism with many parts; these parts or segments, through cooperation, function to maintain stability and equilibrium in order to insure the survival of society. This conceptualization was transferred to organizations. Each division or office through cooperation, contributed to the survival and development of the organization, as a whole (Schwartzman 1993: 14).

The Hawthorne Studies engaged Durkheim's version of the organic analogy and countered Weber's emphasis on the formal aspects of organizations by revealing the importance of the informal aspects of organizations, such as cohort groups, worker relations, and the beliefs and values of individuals. The Hawthorne plant, the subject of the study, was located in western Chicago, and was a major supplier for the Western Electric Company, a division of the Bell Telephone System (Schwartzman 1993: 5). The study was initiated by the company and was originally directed by internal investigators who wanted to understand the "relationships between fatigue and monotony and job satisfaction and dissatisfaction" (Schartzman 1993: 5) among the plants 29,000 employees. In time, prominent Harvard sociologists and social psychologists, including, Elton Mayo (1940), Fritz Roethlisberger, and William Dickinson (1939) were brought in to run the study. However, it is the anthropologist Lloyd Warner, a late comer to the project and a subordinate to the preceding Harvard investigators, (Warner and Low 1947) who is credited with introducing an anthropological approach to the project. Warner used observational research techniques, and emphasized the importance of capturing the perspectives of community members (Hamada 1994: 10-11). Warner, a former student of Radcliffe-Brown and Bronislaw Malinowski, emphasized the value of ethnographic fieldwork like his mentors. These anthropologists placed a premium on understanding the cultures of people by conducting

observational studies that capture the views and behaviors of insiders. While, as a whole, the Hawthorne Studies are recognized for exposing the significance of informal relations in organizational social processes, they are also credited for emphasizing a group of concepts, including, functionalism, Durkheimian organicism and a systems framework. This is captured by Roethlisberger and Dickson in *Management and the Worker* (1939). These researchers conceived of organizations as social systems “...which must be considered as a whole because each part bears a relation of interdependence to every other part. ... Any changes in one part of the social system are accompanied by changes in other parts of the system. The parts of the system can be conceived of as being in a state of equilibrium” (Roethlisberger and Dickson 1939 as cited in Schwartzman 1993: 14-15). While the concept of equilibrium was not developed by systems theorist for another 10-20 years, Roethlisberger and Dickson are credited with recognizing a relational function between parts aimed at maintaining a state of balance.

The 1930s to 1950s – The Human Relations School: A Systematic Ethnographic Approach

The Hawthorne Studies produced a school of research known as the Human Relations School (Buraway 1979: 231). Research within this tradition focused on the interrelationships between workers and on the values and beliefs of the workers (Hamada 1994: 11). In turn, the Human Relations School is credited with enlarging the focus of organizational researchers, as some members of this school studied the larger societal context in which workers operated outside their factory’s walls. The Human Relations School manifests itself in two “general orientations” that at times intertwined – stratification studies and interaction studies (Schwartzman 1993: 19)

Lloyd Warner’s work did not end with the completion of the Hawthorne Studies; as he is credited with initiating stratification studies (Schwartzman 1993: 19). He led a longitudinal

study of a New England community, Newburyport, Massachusetts, that he called Yankee City. The project's over-arching thrust was to understand the impact of social stratification on the community from the perspectives of local people. Methodologically, Warner's approach emphasized direct observation and interviews, and it tried to capture social phenomenon in meticulous detail. Schwartzman (1993: 22), in summarizing the analytical contribution of Warner's stratification studies in Yankee City, notes that he and his colleague Low, "...extended the Hawthorne research by examining not only the internal dynamics of life in a shoe factory in Yankee City, but also the community context of the factory, and the historical sources of industrial conflict that resulted in a strike."

Elliot Chapple, another member of the Human Relations School, is credited with championing the interaction approach to research. He emphasized worker relations and took a micro-approach to study the associated phenomena, using ethnographic techniques such as participant observation, direct observation, and semi-structured interviews to systematically observe and document interactions with references to pace, tempo, sound and duration. Chapple conceived of an organization as "a system of relations of individuals in which the actual contacts imposed by particular technical processes provide the framework within which people have to reach an equilibrium..." (Chapple 1941: 6). Whyte notes that Chapple was concerned with answering the question, "who does what with whom, when and where" (Whyte 1984: 84). Chapple is also known for being one of the first organizational researchers to use the term "culture" in his work.

These human relations studies focused organizational investigations on the interrelationships between workers and on the values and beliefs of the individual workers. In addition, studies such as Warner's enlarged the focus of human relations researchers. Not only

did they record detailed interaction processes within the organization, they also studied the larger societal context in which these workers operated outside the factory's walls. In doing so, Warner opened the door to the conception of organizations as open systems influenced by and part of the world around them.

The 1950s -- An Anthropological Hiatus from Organizational Studies and the Entrance of Sociology

Human Relations studies reached a highpoint in the 1940s with works by Burleigh Gardner, Charles Whyte, Charles Walker, Frederick Richardson, and Melville Dalton (Hamada 1994: 12). At this time the shortcomings of Human Relations School became evident. Critiques centered on this tradition's failure to capture dynamism and a disappointment with the functionalism that pervaded it. In addition, while Warner and some of his followers sought to increase the scope of their studies, critics also cited the failure of Human Relations researchers to adequately capture the influence of external forces and politics on the organizations they studied. As a result, many human relations researchers pursued different interests working in prominent business schools and consulting firms, and returned to the discipline's traditional subject of study – remote, communities (Hamada 1994: 12-3; Schwartzmann 1993: 24-5).

In the 1950s, sociologists (Simpson 1989) joined the Human Relations School of research. Gouldner (1954) showed how disregard for the informal aspects of organizations by management can lead to problems in the workplace (i.e., a wildcat strike). Kriesberg (1956) demonstrated the role of occupational culture in helping workers cope with everyday problems on the job. This sociological line of inquiry sought "...to understand how broad social forces [i.e., macro-level processes] were played out in the behavior of flesh-and-blood workers at the level of the face-to-face work group" (Simpson 1989: 564). In turn, sociologists were credited

with following the tradition of stratification studies associated with the work of Lloyd Warner. These studies, while recognized for being the product of up-close and personal data collection, were also known for examining the relationship of macro-level phenomena, such as class, to worker relations (e.g., Mills 1951, Whyte 1959). In the 1960s, sociologists moved away from studies of the work group (Simpson 1989: 567). With their departure from human relations research this school of research ended (Hamada 1994: 13). Increasingly, sociologists began taking a macro approach, or a “comparative structural approach”, and studied variation in organizational traits across large numbers of organizations (Britan and Cohen 1980: 12).

The 1960s -- A Backlash to Modernism, Open Systems and the Realization of Globalization

Research in the 1960s was marked by the embracement of systems theory and the conception of open systems (e.g., communities, societies, and nation-states) that are connected to and impacted by the outside world and in turn, impact the outside world. These theoretical trends were coupled with a rising concern for the welfare of society. This was characterized by an increasing cynicism among scholars and academics regarding the promises of modernism, such as the belief in endless progress, and that prosperity or material wealth could be had for all people. In turn, anthropologists used a different approach to the study of organizations by focusing on their negative consequences, such as the impact of modern production and consumption processes on marginalized peoples (Hamada 1994: 14-17). These critical thinkers assessed the world around them and saw misery, poverty, and military conflict (e.g., Vietnam, Love canal, etc.) They began to look at capitalism and modern production processes in critical ways, highlighting inequities in the world. The recognition of open systems and connected systems was facilitated by scholars and members of the public who recognized that activities in their homelands had ramifications abroad and vice versa (Downing 1981; Nash 1966; Ribiero

1968; Worsley 1970 as cited in Hamada 1994: 14). Anthropologists embraced Marxist theory and began using concepts related to dependency, world systems, and studied issues related to race, ethnicity, and gender (Hamada 1994: 13). Research in the 1960s further developed and emphasized the need to investigate the relationship between local /micro phenomena and, meso- and macro-phenomena.

The 1970s and 1980s -- A Return to Organizational Studies with the Anthropology of Work, Organizational Cultures, and Organizations as On-going Processes

This section is central to this chapter and to my dissertation as it introduces two analytical perspectives that are directly applicable to my dissertation project, including, a multi-cultural view of organizations and an emphasis on the mundane or everyday social processes that comprise organizational life. In introducing these analytical perspectives I describe their development within the research traditions that arose in the 1970s, including, work studies, studies of organizational culture, and process studies (Schwartzmann 1993: 27). This section starts with a brief description of the anthropology of work, and is followed by more in-depth descriptions of organizational culture studies and process studies.

The Anthropology of Work

In general, studies in the anthropology of work seek to locate “[t]he place of formal organizations within the larger social and economic structure of modern class society.... (Schwartzmann 1993: 28).” A central focus of much of this work has been on laborers who worked in factories, mines, and multi-national corporations. Investigators have shed light on the exploitation of workers, workers’ resistance, and inequities in power. Gamst is recognized for developing “industrial ethnology”, a type of work studies (1977). In his classic work, *The Hoghead* (1980), he describes life as a railroad worker through the perspective of an engineman.

His work values the insider's or emic perspective, while examining the formal and informal aspects of railroad culture and takes into account the historical as well as the current socio-economic context of the railroad industry in the U.S.

Studies of Organizational Culture, a Multi-Cultural View

The concept of culture rose to prominence in organizational anthropology in the 1970s. In this research we see organizations conceived of as containers of cultural communities. These communities engage beliefs, values, and behaviors that are different from other communities in the organization. The perspective brought forth by studies of organizational culture is significant to my research as NOAA is comprised of historically distinct agencies and a myriad of councils, offices and departments, and thus cultural differences abound. In the following paragraph I provide a brief introduction to some of the various conceptualizations of culture that came into use by theorists in this era (Schwarzmann 1993; Smirich 1983). I then focus on the work of Gregory (1983) and Fiske (1994) as their research is instructive in showing how multiple cultures or sub-cultures are manifest within an organization.

Organizational culture has been conceptualized and studied in a variety of ways (Smirich 1983; Sachs 1989). For some, organizational culture (e.g., ethnic, regional, and language) is brought into an organization by its members and serves biological and psychological needs. In this conception, culture is "...revealed in the patterns of attitudes and actions of individual organization members (Smirich 1983: 343)." Others conceive organizational culture as something that was formed inside the organization and arose from the informal aspects of life in the organization. In this case, culture is a "normative glue" that contributes to the "... overall systemic balance and effectiveness of an organization (Smirich 1983: 344)." These latter two conceptions of culture stem from the conception of organizations as organisms (Smirich 1983:

347). There is a third tradition within the study of organizational culture, one that conceives of organizations as cultures or multi-cultural entities (Fiske 1994; Gregory 1983; Smirich 1983; Schwartzmann 1993). In this tradition proponents recognize that culture is formed within different groups and associations within an organization, and as a result larger organizations such as bureaucracies may contain several cultures or sub-cultures. Two examples of this perspective are described by Gregory (1983) and Fiske (1994). These examples have direct relevance to my NOAA research.

In a 1983 article, “Native-View Paradigms: Multiple Cultures and Culture Conflicts in Organizations”, Gregory emphasizes the importance of understanding the emic perspective or native view, and the conception of organizations as containers of multiple cultures (i.e., different groups of natives). In Gregory’s study of professionals working in Silicon Valley’s information technology sector, she identified occupational communities or cultural groups (1983: 370-74) that cross-cut the organization (e.g., computer scientists, software engineers, and “marketeers”). These communities were directly associated with the employees identities and their reference groups both inside and outside the company. As these groups held different values, their understandings of organizational phenomenon varied. As a result, a computer scientist and a software engineer discussed the same issues in slightly different but meaningful ways that at times hindered agreement and cooperation. In turn, new personnel found it difficult to understand and interact with their occupational community, misusing similar terms, potentially resulting in frustration and failed communication. Ethnocentrism also played out within the identified occupational communities as each community justifies its own “centrality” to the organization and “emphasized local priorities” (1983: 372). Individuals who took part in two or more occupational communities over the course of their career were frequently “adept at cross-

cultural ‘mediation’ using their insights (1983: 373)” and had the ability to act as a cultural broker between occupational communities facilitating communication and mitigating potential points of conflict. In summation, Gregory’s research shows how large organizations are comprised of diverse groups of people (e.g., scientists, managers, executives, technicians, financial officers) who frequently view their organizations, missions and operations in different terms. As a result of this multi-cultural organizational environment managers and executives must recognize this discrepancy in the values and beliefs of their employees to adequately address these different points of view to achieve the objectives of the organization.

As did Gregory, Fiske (1994) presents a model of organizations that explains how organizations harbor multiple cultures albeit more nuanced than Gregory’s description of the kinds of cultural phenomenon present in organizations and particularly bureaucracies. In Fiske’s model, cultures are associated with specific locations (i.e., “nodes”, “lines”, “loci”, and “slices”) within the formal structure of an organization where people interact regularly. In turn, cultural phenomena also cross cut the organization, both vertically and horizontally, and extend outside the organization (1994: 97-8). Nodes of cultural phenomena exist in specific workgroups, offices, and divisions. Horizontal slices of cultural phenomena are shared by individuals with similar roles such as budget officers or workforce management officers, as well as within the inter-organizational environment. Cultures can also develop along vertical lines, as in major operating divisions within an agency (e.g., the National Weather Service within NOAA). Fiske’s article identifies and defines three types of cultural phenomena that occur at different organizational locations throughout the executive branch, including pan-bureaucratic culture, agency culture, and local workplace culture. Individuals engage these cultural phenomena situationally, depending on the context – e.g., the setting, the relative status of participants, and

the individuals who are present. These three types of cultural affiliations or sub-cultures are discussed in more detail in the rest of this subsection.

Fiske (1994: 97, 98) describes “pan-bureaucratic norms” in several statements. She notes that these “cultural norms” are in essence, “...implicit knowledge that is held across agencies and allows for the conduct of everyday business in an orderly fashion...but which you will never find written in an Office of Personnel Management (OPM) manual, nor agency operating procedures.” Further, “[p]an-bureaucratic norms, knowledge, and behavior are understandings and beliefs that allow negotiations to occur, interagency work to proceed, and underlie the assumptions and values among upper GS-level staffer personnel and operating managers. These belief systems are a locus of culture... [that act as] threads of understandings about what can and cannot be said, modes of operating, and about one’s positions in the organizations that are pan-bureaucratic.” These norms encompass assumptions about interrelationships between political appointees and civil servants, the relationship between ambiguity and managerial flexibility, the role of concurrences and its corollary of asking for forgiveness after action, and “...interpreting status and ranking systems, common language systems, and the symbolism of delegating authority and responsibility (Fiske 1994: 98).”

Organizational culture at the corporate level may not exist in every organization; however, Fiske (1994: 104) in citing the work of Gold (1982) notes that there is evidence of a corporate culture, albeit to varying degrees. Organizations to varying extents are characterized by a cultural system with interrelated and interdependent parts. Fiske (1994: 104) notes that in a cultural system, “[t]here are core value systems, organizational symbols and ideologies, ceremonial cycles, [subsistence or budget activities], and organizational myths and legends which support and legitimate the organization’s activities.”

“The centerpiece of organizational culture is the core value system which informs behavior, illustrates evil and good, and validates worthwhile goals in the organization (Fiske 1994: 104).” In federal agencies, core values generally derive from specific expertise in the focal area. While core values do change with society (e.g., politics, emerging issues) the mainstay of these values are “long-standing and revered” (Fiske 1994: 105). An organization’s ideology is directly related to an organization’s core value system, as it “...legitimizes the unique political and economic interests of its organization and its work” (Fiske 1994: 105). The ideology of most agencies centers on the specific roles (e.g., service, management, and enforcement) they play in the federal arena as no other entity provides the services that they do (e.g., we deliver special products and services of high quality). Fiske (1994: 106) identifies subsistence activities as a feature of all organizations as they “...attempt to establish control over their financial and human resources..... . . .to insure the continuity of the organization.” The federal budget process is often perceived as a “competition” between agencies (Fiske 1994: 106). The agencies are dependent on “Congress and the American public” for funds via the congressional appropriations process. “Agencies must justify their budget to Congress and OMB, justifying enhancements for new expenditures, and nurturing relationships with constituencies who can help in the appropriations and authorization process (Fiske 1994: 106-107).”

The last locus of culture described by Fiske (1994: 108-109) are localized cultural systems found in the settings where bureaucrats spend most of their time, such as the office and/or the workgroup. These may be the strongest or most complete cultural systems as members of these groups have frequent interaction, similar professional backgrounds, etc., and thus the potential for the development of a coherent cultural system is relatively great. These

localized cultural systems have core values, material and ceremonial elements as well as a lexicon. Fiske (1994: 112) speaks to the utility of understanding office culture in the following quotes: “An awareness of office culture can be useful to managers facing certain problems.” “Ideally, the culture of an office should reflect its core values...and at the same time legitimate the value of the individuals and the work they perform.”

Fiske’s work highlights several insights that are noteworthy in light of my research. She explains that culture develops where individuals interact regularly, and that cultural systems vary in their degree of completeness pending the regularity and depth of human interactions. In turn, she identifies some of the key places within in the federal environment where cultural groups or sub-cultures develop, including pan-bureaucratic culture, agency culture and office/work group culture.

In many respects the body of work on organizational culture emphasizes one of the key insights of anthropology, namely that culturally different groups exist in society. I extrapolate this insight and assert that organizations are reflections of the very societies we live in and are comprised of many of the different subgroups that exist outside in the societies they are embedded within. On a final note, I assert that a multi-cultural conception provides an important aspect of the organizational context that is necessary to understand the culturally laden interactions and exchanges that comprise deliberations in the meetings of NOAA’s corporate councils. As the executives who are council members represent historically distinct agencies and as well as offices and departments, and as a result cultural differences abound in the council forums. In turn the agencies top line office administrators represent their line office cultures in the venues that they inhabit (e.g., meetings, ‘water cooler’ chats).

Process Studies: Organizing

While studies of organizational culture provide insight into the beliefs, values and behaviors that characterize culture, process studies provide insight into social dynamics; that is how individuals relate and interact with one another, and how groups of individuals interact on a daily basis. Process researchers assert that examinations of the daily routines of people can provide insight into the social system in which these routines are located. As Anthony Giddens (1984: 36) suggests, “All social systems, no matter how grand or far flung, both express and are expressed in the routines of daily social life...” As a result, we are able to go beyond micro-level (i.e., social phenomena) studies and gain insight into micro-macro level interactions. Theorists, such as Ortner, Bourdieu, and Giddens emphasize a process orientation by focusing on the daily practices of individuals and use this to illuminate the way social structure through ideology, channels behavior, and also in turn how practice (i.e., routinized behavior) can alter the social system.

Process studies often focus on language and the context in which it is communicated. Schwartzman (1989) in her book, *The Meeting*, recognizes a group of process researchers who have investigated bureaucracies (e.g., Bailey 1983; Conkling 1984; Schwartzman 1984; Weick 1979). Her description of this body of research is offered in the following quote:

These studies examine formal organizations as social constructions of members, and they represent a move away from concepts that treat organizations as stable, concrete, objective, and essentially unproblematic entities and toward consideration of the organizing processes and forms that “enact” the organization (see especially Weick 1979). Attention is focused specifically on the interpersonal occasions in which “organizations” are realized, and this means that talk and the forms such as meetings that structure it become important contexts of research interest.

In this quote Schwartzman (1989), conceives of organizations as socially constructed entities that arise through the agreed upon activities of individuals interacting in socially accepted venues or

“forms” (e.g., briefs, lunch meetings, and committee meetings) these activities are in essence organizing processes. From this perspective organizations are not stable, concrete, objective entities (e.g., buildings, organizational charts, formal business processes, official programs and offices) they are dynamic entities, changing with the social interactions of members and the interplay between this social interaction and context (i.e., meeting, organization, federal government, socio-political environment). Perhaps the most important idea suggested in the preceding quote, is the assertion that organizations are enacted or created through ongoing social processes. That is organizations are products of social interaction and the agreements and meanings that are produced in these interactions.

Schwartzman vies for the study of meetings in situations when a researcher is “concerned with decisions or speech and persuasion in politics (Schwartzman 1989: 31).” She emphasizes the study of meetings as socially constructed events with specific functions (9, 125) that are determined by the encompassing social system. Schwartzman (1989: 34) postulates a theory of meetings, asserting that meetings are “communicative events” that must be examined as they are embedded within a socio-cultural setting. She cites Karl Weick (1979) in noting that people act and derive meaning about their actions from the context they operate in (Schwartzman 1989: 36). Schwartzman (1989: 36-37) goes on to note that, “[w]hat is important to emphasize for my purposes is that individuals do not and cannot act outside of forms such as communicative events like meetings that they use to generate interaction as well as to interpret what it means (we are chatting, we are playing, we are meeting).” It is through meetings that individuals come to some understanding via social interaction of what is happening in their world and their place within it.

Schwartzman (1989: 38) cites Weick (1979) again, noting that:

...it is forms, such as meetings in these contexts, which provide individuals opportunities for sense making (see Weick 1979), whereas, at the same time producing, reproducing, and sometimes transforming the social and cultural system. In fact, the accomplishments of meetings as a form and the intentions of individuals in meetings frequently do not mesh, as they are *mixed* or *mixed up* by this form.

In this quote, Schwartzman asserts that it is through meetings that individuals are able to understand and make sense of the phenomena in their world. The sense that is made may reproduce or transform the existing social and cultural system. In turn, the outcomes or accomplishments (e.g., decisions and actions) of meetings may not always align with the intentions of individual participants, that is, the sense that is made may not reflect the intentions of some participants. In addition, meetings serve various implicit social functions (Schwartzman 1989: 41-2), as they act as, “social validating mechanism” as acceptance of them – i.e., topic, format, status relations – requires “acceptance of the current social and cultural order.” In turn, “meetings and the indirect speech that this form facilitates, allows individuals to negotiate and/or comment on their formal and informal social relationships while they appear to be making a decision, solving a problem, formulating policy and so forth.”

In my research I embrace a process approach by studying the interactions and beliefs and values of meeting participants to understand executive decision-making. Schwartzman and Weick assert that meetings “...provide individuals with a place for making sense of what it is they are doing and saying (Weick 1979: 133-134 as cited in Schwartzman 1989: 9).” As a result I have chosen to examine executive interactions their related outcomes (i.e., decisions and actions), and the utility of Weick’s sensemaking framework toward understanding these social processes. In the following and final sub-section of this literature review I further examine the ideas of Karl Weick on sensemaking and close this chapter by introducing the seven properties of sensemaking that Weick has identified.

Sensemaking

At the base of Weick's organizing or process approach is sensemaking.

....Organizations are presumed to talk to themselves over and over to find out what they're thinking.... The organism or group enacts equivocal raw talk, the talk is viewed retrospectively, sense is made of it, and then this sense is stored as knowledge in the retention process. The aim of each process has been to reduce equivocality and to get some idea of what has occurred (Weick as cited in Schwartzman 1993: 37).

This framework places an analytical emphasis on the interplay between individuals, groups and vice versa, Matlis (2005: 21) notes, that:

...[S]ensemaking is a process of social construction in which individuals attempt to interpret and explain sets of cues from their environments. This happens through the production of 'accounts' – discursive constructions of reality that interpret or explain – or through the 'activation' of existing accounts. In either case, sensemaking allows people to deal with uncertainty and ambiguity by creating rational accounts of the world that enable action. Sensemaking thus both precedes decision making and follows it...

In turn, Weick (Weick 2001: 14) describes sensemaking as a:

...rationalizing process, in which behavior is rationalized by referring to features of the environment which support it. Such sensemaking also occurs in a social context in which norms and expectations affect the rationalizations developed for behavior, and this can be described as a process of legitimizing behavior. People develop acceptable justifications for their behavior as a way of making such behavior meaningful and explainable.

Weick views social processes as the most significant feature of organizations and asserts that,

“....the crucial events to be explained are processes, their structuring, modification and dissolving (Scott 2001).” In fact, Weick “...suggests a dialectical relationship between social structure and sensemaking: the accounts generated by sensemaking facilitate the formation and reformulation of social structure (the social roles and relationships among groups of actors), while social roles and relationships provide a basis for sensemaking (as cited in Matlis 2005: 22).”

Weick presents the substantive underpinnings of sensemaking in seven “properties”. These are identified and defined in this subsection. I use these properties to identify and analyze components of sensemaking in the deliberations of NOAA’s executive councils.

1) Sensemaking is grounded in identity construction, that in turn, is premised on the belief that the identities of individuals are not static constructs, but rather are fluid and dynamic, changing as context and role change (e.g., a NOAA executive can be a council lead, a council member, the representative of a line office, a representative of the entire Agency – NOAA, and the representative of a council). Hence, as one’s role changes, so does the meaning one makes out of reality.

2) Sensemaking is a retrospective activity. As Hartshorne (as cited in Weick 1995) noted, “Man has discovered that his perceived world is in reality a past world. . . . [A]ny object outside the body, however close, is at least minutely past by the time we perceive it.” This stems from “...the point that time exists in two distinct forms, as pure duration and as discrete segments” (Weick 1995: 25). “[E]xperience as we know it exists in the form of distinct events. But the only way we get this impression is by stepping outside the stream of experience and directing attention to it. It is only possible to direct attention to what exists, that is, what has already passed” (Weick 1995: 25).

3) Sensemaking involves the enactment of sensible environments. As I noted, individual identities are fluid and change in light of context. In turn, the environments people act in are characterized by diversity, plurality, and dynamism. However, people only recognize a subset of these characteristics. This subset becomes the enacted environment comprised of the constraints and opportunities they face (Weick 1995: 31).

4) Further, sensemaking is a social activity. Meaning is constructed through the interaction of individuals. The thoughts of individuals are not solely the product of the individual; rather, they are contingent on both previous and future social interactions. Weick (1995: 38) notes “...[e]ven monologues and one way communications presume an audience.”

5) Additionally, sensemaking is an ongoing activity. That is, people are in a constant state of making sense of one phenomenon or another. Thus, “[s]ensemaking never starts...people are always in the middle of things, become things...” (Weick 1995: 43).

6) Perhaps the most important characteristic of sensemaking is that *it is focused on and created by extracted cues* (Weick 1995: 35-45). These cues are traits, attributes, or characteristics of the phenomenon in question. The determination or selection of cues is premised on one’s cultural values and beliefs. As a result, the individuals who make sense or give sense to a group must wield an understanding of the accepted or esteemed cultural standards of the group in order to identify and propose appropriate cues and corresponding actions. In addition, extracted cues may suggest a “consequence” or course of action (e.g., not to buy the dress) “more obviously” than the total body of cues would indicate (James as cited in Weick 1995: 50). The power of sensemaking lies in the faithful and routine use of the selected cues as reference points. It is this use that enables the presumed interpretations of the cues to become “a tangible order”, or what is referred in laymen’s terms as reality (Weick 1995: 54).

7) Sensemaking is “driven by plausibility rather than accuracy” (Weick 1995: 55). As cues have multiple meanings and audiences have multiple and diverse interpretations, discerning the accurate interpretation of a cue is not certain. In fact, it is important to develop a plausible interpretation to initiate action, as most aspects of life and particularly organizational life are time constrained (Weick 1995: 57-58). “Beliefs that counteract interruptions and facilitate

ongoing projects are treated as accurate (Weick 1995: 59).” Once action is begun it can always be modified (in most situations) in light of new information.

Engaging the Past: From the Hawthorne Studies to Sensemaking at NOAA

The preceding literature review provides an overview of organizational anthropology, and an introduction to a closely related specialization organizational social psychology (in the work of Karl Weick), placing emphasis on those aspects of these specializations that are most relevant to my work. In considering the ground that I have covered in this review the reader will be able to see threads of this specialization’s history in my work. The methodology and study design I use is reflective of various characteristics of the Hawthorne Studies, the Human Relations School, and open systems researchers, including a case study approach, direct observation, a relation or inter-actional approach, a diachronic approach, and an emphasis on context – external and marco-level influences. In turn, my analytical approach draws on multi-cultural conceptualizations of organizations, and emphasizes social processes as put forth by those studying organizational culture in the 1980s and 1990s (Fiske 1995; Gregory 1983; Smirich 1983; Schwartzmann 1993; Weick 2001). In closing, I draw on the social theory of sensemaking and the view of organizations as ongoing social processes to explain the workings of executive decision-making in some of NOAA’s corporate councils.

CHAPTER 3

NOAA: AN HISTORICAL AND STRUCTURAL VIEW

In this chapter I describe the institutional context of my research. NOAA's role and position within the federal government; the Agency's organizational structure including the formation of the Agency's major line offices; and its mission, corporate organization, council system, resource allocation system and formal decision processes are all described. I close the chapter with a brief discussion on the unique opportunity that NOAA provides as a case study on executive decision-making.

NOAA's Mission and History

The primary mission of the National Oceanic and Atmospheric Administration is “[t]o understand and predict changes in the earth's environment and conserve and manage coastal and marine resources to meet our Nation's economic, social, and environmental needs (NOAA 2007a).” In meeting its mission, NOAA is involved with natural resource management, policy-making, research and the dissemination of environmental information for the promotion of safe and efficient travel. NOAA's congressionally mandated subjects of interest include the atmosphere, the nation's marine and coastal environments, and the Great Lakes (including Vermont's Lake Champlain).

The backbone of NOAA is its line office structure. NOAA's current structure is comprised of six line offices: 1) the National Marine Fisheries Service (NMFS), 2) the Office of Oceanic and Atmospheric Research (OAR), 3) the National Ocean Service (NOS), 4) the National Environmental Satellite, Data, and Information Service (NESDIS), 5) the National

Weather Service (NWS), and 6) the Office of Program Planning and Integration (PPI). While contemporary NOAA started 39 years ago in 1970, some line office components (Figure 3.1) began more than 200 years ago (NOAA 2007b).

The National Ocean Service (NOS) has roots in the U.S. Survey of the Coasts, as authorized by Congress and President Jefferson in 1807, and renamed the U.S. Coast and Geodetic Survey in 1878. The National Weather Service (NWS) arose out of the National Weather Observation Network that was unofficially started in the War of 1812 by the Surgeon General of the Army, who ordered surgeons to take observations and record climate data. In 1890 the duties of this National Weather Observation Network were transferred from the Army to the Department of Agriculture to the newly formed National Weather Bureau, which would eventually become the National Weather Service. The National Marine Fisheries Service (NMFS) is the direct descendant of the U.S. Commission of Fish and Fisheries initiated in 1871 “... to protect, study, manage and restore fish” (NOAA 2007c). In 1903 the U.S. Commission of Fish and Fisheries became the U.S. Bureau of Fisheries. In 1956 it became the Bureau of Commercial Fisheries, and was housed in the newly created U.S. Fish and Wildlife Service. Finally, it was renamed the National Marine Fisheries Service when it became part of NOAA in 1970. NOAA’s website notes that, “individually these organizations [i.e., NOS, NWS, and NMFS] were America's first physical science Agency, America's first Agency dedicated specifically to the atmospheric sciences, and America's first conservation Agency” (NOAA 2007b).

Two other line offices, the National Environmental Satellite, Data, and Information Service (NESDIS) and the Office of Oceanic and Atmospheric Research (OAR), although not formally recognized until the inception of modern day NOAA, also arose from the fisheries and

weather-related activities noted above. NESDIS arose from the confluence of two data collection and archival activities, the satellite activities of the burgeoning U.S. Space Program and climate record-keeping of the National Weather Bureau. OAR is a descendant of the fisheries and weather-related activities of the U.S. Survey of Coasts and the U.S. Commission of Fish and Fisheries. The newest line office, the Office of Planning, Programming and Integration (PPI) was created in 2002.

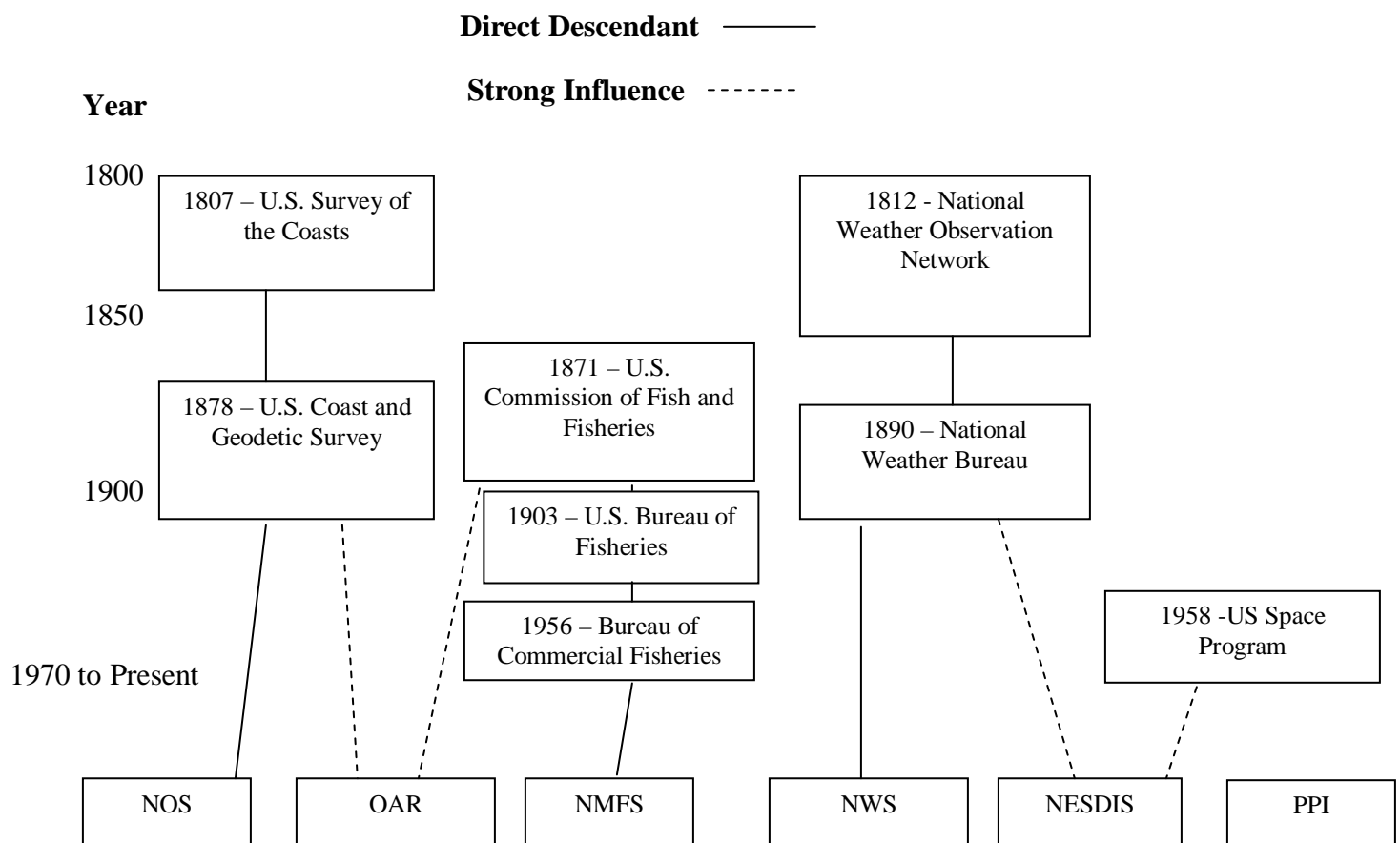


Figure 3.1: NOAA’S Line Office Genealogy

Source: National Oceanic and Atmospheric Administration

In the summer of 1970, President Richard Nixon proposed the creation of what is now NOAA, “for better protection of life and property from natural hazards...for a better

understanding of the total environment...[and] for exploration and development leading to the intelligent use of our marine resources (NOAA 2007d).” NOAA was established as an agency in the U.S. Department of Commerce (DOC) on October 3, 1970, and is currently one of twelve bureaus and offices that comprise the DOC (U.S. DOC 2007). As an agency within the U.S. Department of Commerce, NOAA is subject to the approval of its budget, and thus its programmatic activities, by both the DOC and the Executive Branch’s Office of Management and Budget prior to congressional review and approval. In this respect, NOAA is unlike its kindred federal agencies, the Environmental Protection Agency (EPA) and the National Aeronautics and Space Administration (NASA), as they are not housed in and subordinate to an executive level department.

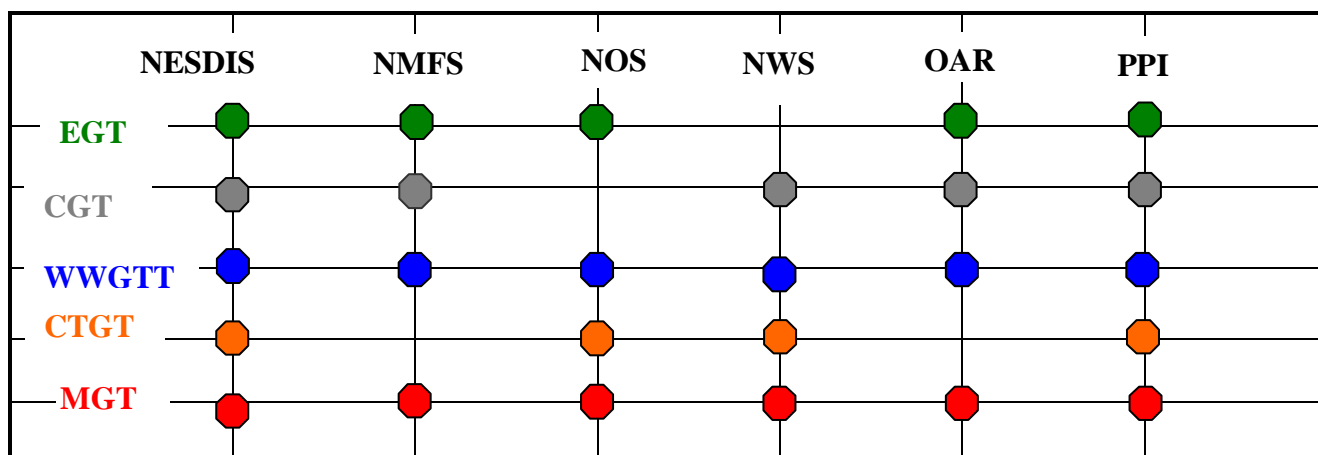
Matrix Management and NOAA’S Organization

For much of NOAA’s contemporary history, its line offices have functioned relatively independently with regard to their programmatic and day-to-day activities. This is a vestige of their relatively independent pasts. For some time NOAA’s leadership has sought to integrate activities across its line offices. This effort was pushed to the forefront of the Agency’s agenda by the former administrator (2001-2008), Vice Admiral Conrad Lautenbacher, who sought to integrate line office activities to heighten efficiencies and the efficacy of the Agency. This effort (hereafter referred to as the Lautenbacher reorganization) has realigned the Agency’s organization by installing a matrix organizational structure, and the corresponding adaptation of a new planning and resource allocation system. This allocation system is officially known as the Planning, Programming, Budgeting and Execution System, and commonly referred to by NOAA’s employees as “PPBES.”

The matrix organizational structure originated in the aerospace industry in the 1960s (Mee 1964). It was initially intended to mesh the strengths of industrial organizations designed around their corporate function (e.g., producing electronics) and those designed around a project or the production of a specific product (e.g., a transistor). Matrix organizations seek to capitalize on the strengths of both organizational forms — efficiency, as well as quality via specialization — within “...a flexible and adaptable system of resources and procedures to achieve a series of project objectives (Mee 1964: 70-72).” The term matrix refers to the connection of several major departments, or line offices. This connection is made by coordinating bodies (e.g., thematic mission-oriented teams and/ or programs) that link personnel in the line offices forming a conceptual matrix and focusing a subset of the organization’s components to meet a specific objective. The basic historical model of an industrial organization consisted of line offices (e.g., Pontiac, Oldsmobile) that focused their efforts on meeting specific levels of production (e.g., build 2000 cars in the first quarter). Matrix organizations sought to shift the manufacturing emphasis toward specific projects by linking divisional components within lines in a project-centered manner (e.g., personnel, engineering, and materials). The goal was to foster coordination, collaboration, efficiency, and ultimately to increase the quality of products and raise corporate profits (Mee 1964).

The Lautenbacher reorganization involved installing corporate goal teams, matrix programs, a revised council system, a planning and integration line office (PPI), PPBES, and a formalized Executive Decision Process (EDP). These entities were meant to bring a more unified approach to NOAA’s activities by fostering collaboration and synergies between NOAA’s components.

Five goal teams were formed to insure the fulfillment of NOAA's four mission goals: 1) the Ecosystem Goal Team (EGT) is aligned with the Agency's mission to protect, restore, and manage the use of coastal and ocean resources through an ecosystem approach to management; 2) the Weather and Water Goal Team (WWGT) leads the Agency's efforts to serve society's needs for weather and water information; 3) the Climate Goal Team (CGT) leads NOAA's efforts to understand climate variability and change in order to enhance society's ability to plan and respond; 4) the Commerce and Transportation Goal Team (CTGT) leads NOAA's efforts to support the nation's commerce with information for safe, efficient, and environmentally sound transportation; and 5) the Mission Support Goal Team (MGT) supports NOAA's programs and laboratories in meeting the four other mission objectives by providing transport (both air and water) and to a lesser extent observing capabilities for research, observation and management. These teams provide coordination and leadership for planning and programming activities across the Agency and for the support of operations (i.e., mission support). The goal teams are both corporate and semi-corporate, as the thematic leadership bodies work with line offices whose objectives are related to their particular mission. For example, the Ecosystem Goal Team directs and coordinates activities of programs within five of NOAA's six line offices including NESDIS, NMFS, NOS, OAR, and PPI. Two of NOAA's goal teams, the Weather and Water Goal Team and the Mission Support Goal Team, work with all of the line offices. (Figure 3.2 displays the connection between line offices and goal teams.)



Source: National Oceanic and Atmospheric Administration

Figure 3.2: NOAA's Six Line Offices and Their Affiliated Goal Teams

Each goal team houses a number of major programs and matrix programs whose operations are in line with the mission of the goal team under which they are housed (Figure 3.3). Major programs are individual programs that are focused on a single major issue (e.g., the Aquaculture Program). While matrix programs are semi-corporate entities that embody a number of major programs, offices, laboratories, and centers, in two or more line offices, thus creating links between them (i.e., forming a conceptual matrix). On the other hand, some programs, offices, laboratories and centers function in more than one matrix program. In effect, NOAA's matrix organization works by having each NOAA program, office and laboratory fall under the direction of one or more goal teams, and one or more matrix programs, in addition to a line office. It is through these connections that cooperation and coordination on specific projects is fostered between NOAA's line offices.

Table 3.1: NOAA's Goal Teams and Affiliated Major and Matrix Programs

EGT	CGT	WWGT	C&TGT	MSGT
<ul style="list-style-type: none"> • Habitat* • Corals* • Coastal & Marine Resources • Protected Species • Fisheries Mangmt. • Aquaculture • Enforcement • Ecosystem's Observations* • Ecosystem's Research* 	<ul style="list-style-type: none"> • CL Observations & Monitoring* • CL Research & Modeling* • CL Service Development 	<ul style="list-style-type: none"> • Local Forecasts & Warnings • Coasts, Estuaries & Oceans* • Space Weather • Hydrology • Air Quality* • Science, Tech & Infusion* • Tsunami 	<ul style="list-style-type: none"> • Marine Transportation Systems • Aviation Weather • Marine Weather • Geodesy • Emergency Response* • Surface Weather 	<ul style="list-style-type: none"> • Sub-Goals: • Satellites • Fleet • Leadership & Corporate Services • Mission Support • Modeling & Observing Infrastructure

Source: National Oceanic and Atmospheric Administration

*Matrix Program

While NOAA's corporate level staff offices predate the Lautenbacher reorganization they also serve as unifying forces, and are in essence responsible for the logistical workings of NOAA (e.g., budget management, program evaluation and regulatory compliance). These include the Budget Office, the Program, Analysis and Evaluation Office, the Office of General Counsel, the Acquisition and Grants Office, the Workforce Management Office, the Office of the Chief Information Officer, the Office of Communication, the Office of the Chief Financial Officer, and the Office of the Chief Administrative Officer, the Office of Education and the Legislative Affairs Office. Most of these corporate offices have subordinate line office analogs, for example, there is a National Marine Fisheries Budget Office and a National Ocean Service Management and Budget Office. The corporate staff offices view issues from a NOAA-wide perspective, and aim to foster intra-agency collaboration and coordination.

NOAA has had various councils throughout its existence and in recent years has instituted a formal system of councils. These councils are involved in both long-term planning

and day-to-day functions and are intended to emphasize an agency-wide perspective. During my research there were 13 NOAA-wide councils in the agency's council system (Table 3.2).

Table 3.2: NOAA's Thirteen Corporate Councils

NOAA Executive Council* (NEC)	NOAA Executive Panel* (NEP)
Chief Financial Officers Council	Minority Serving Institutions Council
Chief Information Officers Council	Observing Systems Council
Education Council	Ocean Council*
Human Capital Council	Fleet Council
International Affairs Council	Safety Council
Research Council*	

Source: National Oceanic and Atmospheric Administration

*councils under study in this research

This system and the entire agency are overseen by the NOAA's two highest executive councils, the NOAA Executive Council (NEC) and the NOAA Executive Panel (NEP). The NEC is comprised of the highest individuals in all of NOAA's major offices and the heads of the Agency as identified in table 3.3.

Table 3.3: Members of the NOAA Executive Council

Undersecretary of Commerce for Oceans and Atmosphere	Deputy Assistant Secretary for Oceans and Atmosphere
Assistant Secretary of Commerce for Oceans And Atmosphere	Deputy Assistant Secretary for International Affairs
Deputy Undersecretary of Commerce for Oceans and Atmosphere	Director of the Office of Marine and Aviation Operations
Assistant Administrator of the NOAA Ocean Service	Assistant Administrator of the Office of Oceanic and Atmospheric Research
Assistant Administrator of the National Weather Service	Assistant Administrator of the National Environmental Satellite, Data, and Information Service
Assistant Administrator of the National Marine Fisheries Service	Assistant Administrator of the Office of Program Planning and Integration
Chief Financial Officer	

Source: National Oceanic and Atmospheric Administration

The role of the NOAA Executive Council is described in the Council's Official Terms of

Reference as follows:

The NOAA Executive Council, hereafter referred to as the NEC, is the highest level executive management body within NOAA. The purpose of the NEC is to advise the Under Secretary of Commerce for Oceans and Atmosphere/NOAA Administrator before final decisions on NOAA wide policy (i.e., but not limited to budget, policy, procedure, organizational direction, organizational assessments and resolving conflicts) are made. It is the forum through which NOAA senior management provide advice and counsel on high level operation and management issues. The Chair of the NEC will be the Under Secretary of Commerce for Oceans and Atmosphere/NOAA Administrator. When absent, it will be the most senior member of the NOAA management team (NOAA 2007g).

In turn, the NOAA Executive Panel is generally comprised of the deputies or 'second in the chain of command' for all of NOAA's major offices and the Deputy Undersecretary of the Commerce (Table 3.4).

Table 3.4: Members of the NOAA Executive Panel

Deputy Undersecretary of Commerce for Oceans and Atmosphere	Chief Information Officer
Chief Financial Officer	Director of Workforce Management Office
Chief Administrative Officer	Director of Program Analysis and Evaluation
Director of Acquisition and Grants Office	Deputy Director, Office of Marine and Aviation Operations
Deputy Assistant Administrator of the NOAA Ocean Service	Deputy Assistant Administrator of the Office of Oceanic and Atmospheric Research
Deputy Assistant Administrator of the National Weather Service	Deputy Assistant Administrator of the National Environmental Satellite, Data and Information Service
Deputy Assistant Administrator of the National Marine Fisheries Service	Deputy Assistant Administrator of the Office of Program Planning and Integration

The role of the NOAA Executive Panel is described in this council's official terms of reference (NOAA 2007h) as follows:

The NOAA Executive Panel, hereafter referred to as the NEP, is a senior level body within NOAA that works with the Deputy Under Secretary for Oceans and Atmosphere (DUS) to make decisions on NOAA-wide operating issues and policies. It is the forum through which NOAA senior management will have input into the day to day NOAA-wide management issues that do not require the attention of the NOAA Executive Council (NEC).

The eleven other councils provide corporate guidance on their issue areas to the NEP and NEC leaders. In some instances, where a council's role relates directly to the functional roles of its members (e.g., CFO/ CAO council is comprised of the NOAA chief financial officer, the chief administrative officer and their subordinate equivalents for each line office), the councils have the ability to make NOAA-wide decisions.

My research centers on the meeting activities of the NEP and NEC and two other councils, the NOAA Ocean Council (NOC) and the NOAA Research Council (RC). I describe the objectives and composition of these two councils in this and the next paragraph. The NOC's official terms of reference describe the council's role as follows (for a list of all members and a full statement of purpose see Appendix F) "[The] NOAA Ocean Council (NOC) is established as the principal advisory body to the Administrator and focal point for the Agency's ocean activities and interests, including open ocean, near shore, coastal, estuarine and Great Lakes activities (NOAA 2007j)." The principal membership of the NOAA Ocean Council (NOC) is comprised of representatives from NOAA's six line offices, the Office of Marine and Aviation Operations, and two co-chairpersons, the Assistant Administrator for the NOAA Ocean Service and the Deputy Assistant Administrator for NOAA Fisheries (see Appendix F for a list of NOC members).

The purpose of the RC is cited on the Council's webpage (NOAA 2007i) as follows:

The NOAA Research Council provides corporate oversight and develops policy to ensure that NOAA research activities are of the highest scientific quality, meet long-range societal needs, take advantage of emerging scientific and technological opportunities, shape a forward-looking research agenda, and are accomplished in an efficient and cost effective manner.

The Mission of the NOAA Research Council is to ensure that all NOAA services are based on sound science and that all NOAA research programs and long term plans are consistent with the NOAA Mission, NOAA Strategic Plan and recommendations contained in National Research Council and NOAA Science Advisory Board (SAB) research reviews.

The principal membership of the RC is comprised of representatives from each of NOAA's six line offices, as well as a chair-person and vice chair-person, who are the head of the Office of Oceanic and Atmospheric Research and a senior scientist from this office (see Appendix G for a list of RC members).

The Executive Decision Process (EDP)

The councils and NOAA's major offices make agency-wide decisions working within a hierarchical organizational framework, known officially as the Executive Decision-making Process or EDP. At the top of this hierarchy are the NEC and NEP who aim to address issues that are pertinent to the entire agency. These councils can receive issues from any of the major offices or eleven corporate councils. The nature of the issue (e.g., satellite acquisitions) determines participation, such that the relevant councils and offices (e.g., Chief Financial Officer's council, the Observing Systems Council, the National Environmental Satellite, Data and Information Service and the National Weather Service) participate in the development and vetting of an issue. NOAA's Decision Coordination Office, a division in the office of the Undersecretary of Oceans and Atmosphere, offers this short description of the EDP (NOAA 2007f):

The EDP is designed so that a proposal systematically works through levels of oversight until it is approved by the Under Secretary. A proposal can be initiated at any level of the organization in any division. The process begins with the sponsorship of a council or Assistant Administrator then is presented to the NOAA Executive Panel (NEP) for review and finally the NOAA Executive Council (NEC) for final approval.

Planning, Programming, Budgeting and Execution System (PPBES)

The PPBES system is both a conceptual structure and a process for carrying out the planning and resource allocation activities of the Agency. NOAA's Office of Program Planning and Integration (PPI, one of six line offices) was created during the Lautenbacher reorganization

effort to oversee the planning stage and provide direction for creating and implementing PPBES.

In September 2007, this line office's website on PPBES provided the following description of this system (NOAA 2007e):

The Planning, Programming, Budgeting, and Execution System (PPBES) is the process NOAA has adapted to link NOAA's strategic vision with programmatic detail, budget development, and annual operating plans. A major decision-making process, the PPBES permits the Line Offices, goals and programs to do joint planning and link directly to NOAA's Programming, Budgeting and Execution phases.

The four phases of the process are described, respectively, in four short generalizations by PPI, as what NOAA 'should do', 'can do', 'will do', and 'does'. The planning phase involves identifying the actions NOAA *should* take in 3 to 7 years, with an emphasis on the closest year. The programming phase identifies the actions that NOAA *can* take. The budgeting phase selects those actions that NOAA *will* take, while the execution phase is comprised of actions that NOAA actually *does* take.

Each phase is managed by a particular corporate office. The planning phase is managed by PPI. This phase focuses the activities of goal teams, matrix programs and councils on what NOAA should be doing three to seven years into the future given the Agency's mission, current Agency objectives, relevant external events and trends, and the level of resources needed to support the devised strategy. The programming phase is managed by the Program Analysis and Evaluation Office (PAE) and focuses on identifying what the Agency can do given its current activities, current and projected resources, and future direction during the next 3 to 7 years. The budgeting phase is managed by the NOAA Budget Office (NBO) and focuses on supporting the activities identified in programming — given the Agency's mission, societal trends, events, projected funding, national and international issues — by producing resource requests for congressional authorization and appropriations. The execution phase is directed by the NBO and

the individual line offices with oversight by the Deputy Undersecretary of Commerce and concentrates on the actual allocation of resources and program performance during a given current fiscal year.

The point of this chapter is to provide the reader with a formal understanding of NOAA. In so doing, I provide a description of the Agency's history, formal structures and processes. These descriptions of the formal context of my research, along with the ethnographic view I provide in the next chapter, enable you to understand my findings in the upcoming chapters.

CHAPTER 4

NOAA: AN ETHNOGRAPHIC VIEW

An Overview

NOAA is comprised of two communities, or as some have stated “two agencies”. One community is composed of executives and upper level managers, and is the focus of this study. It is referred to as “Headquarters” and its primary geography is located within the Capital Beltway (I-495, the major interstate highway that circles Washington, DC), which is commonly referred to as the “Beltway”. The second community is composed of NOAA’s field personnel, including its, regional scientists, technicians, and observing platform staff, and is referred to as the “Field”. Its primary geography is located outside the Beltway in NOAA science centers, laboratories, offices and cooperative institutes throughout the country. This chapter provides a description of the two communities – headquarters and the field. It describes the locations of these communities, the different types of work they carry out, the values they affirm, and the beliefs they hold about others within and outside their own part of the Agency. Line office culture is described using examples drawn from the National Marine Fisheries Service’s cultural system (Fiske 1994) as viewed from headquarters. I also describe and examine the cultural implications of the Lautenbacher reorganization using the work of Fiske (1994) and Stull et al. (1986). This ethnographic description is enriched by identifying some of the key events that characterize life at headquarters, including meetings, fire drills, and information transfer issues. The final section of this chapter describes significant business processes that frame many of the

activities at headquarters for NOAA's executives. This ethnographic view helps bring to life NOAA's organizational structure described in the previous chapter.

A Cultural Divide: Headquarters vs. the Field

The term communities is not only appropriate for characterizing from an anthropological perspective the cultural divide that exists at NOAA between Headquarters and the Field, but it is also appropriate from a spatial arrangement perspective, because these communities are located in different places. This was explicitly identified by a NEP member, during an interview, in the following way:

I would say there are two NOAAs, and the NOAA that we are talking about, that we were talking about for the last 45 minutes, is the NOAA inside the beltway. There's a NOAA outside the beltway that -- I don't wanna say "irrespective," but does a job everyday, and our job inside the beltway is to provide the tools for those folks outside the beltway to be able to do their job.

So, one major distinction between the field and headquarters is their location.

Headquarters is located in the Washington, DC metropolitan area, while the field is located outside the metropolitan area in diverse locales throughout the U.S. The built environment of headquarters is distinct from that found in the field. The architecture of headquarters is urban, with historic buildings, high rise complexes and technologically sophisticated meeting rooms. While the field does have large complexes with state of the art facilities in some places like Sand Point in Seattle, Washington, or the NOAA Complex in Boulder, Colorado, many NOAA field facilities consist of dated structures, like agency laboratories and observing platforms in rural and/or waterside locations.

The statement quoted above, while distinguishing between the two communities, also implies a culturally significant distinction between the work that each of these communities does, and the beliefs and values that members of the two communities hold about each other. It also

hints at their relationship to, or degree of integration with, corporate NOAA and with the other line offices that compose the total organization. Headquarters' personnel provide strategy, planning and programming that directs resource allocation and distribution, and enables the work of NOAA's personnel in the field. Work in the field encompasses NOAA's, main business, for example monitoring fish stocks, conducting climate and weather observations, educating citizens, and managing coastal zones. These two communities perform qualitatively different activities on a daily basis. These occupational differences are reflected in the different beliefs that members of each community hold about the values and beliefs of members of the other community. A NEP member and headquarters' employee described the perspectives of NOAA's field employees during an interview. He stated that,

Most of them are not affected by and could care less about, how we do things here inside the beltway. They don't understand it. They don't want to understand it. All they...[care about is] that they have their job, they are given what they need to do their job, they expect their leaders to provide them with that.

This belief in "two agencies" was expressed by others who worked at headquarters. A scientist who now works as a program officer vented his frustrations to me one day. In doing so he provided another example of the different perspectives held by line office executives at headquarters and employees who work in the field. He stated,

The people upstairs (i.e., NOAA and line office leadership) spend all day caring about this crap (i.e., an integrated NOAA). I worked in the field for years, and we did good work, and we had no idea about this 'ONE NOAA' stuff. All we knew is that we worked for ... [line office 'x'], and none of that affected our job [performance].

This quote portrays another aspect of the cultural divide between the field and headquarters. One's field experience may impact an individual's credibility, and in turn their effectiveness as a leader and broker between headquarters and the field. Headquarters is staffed by many individuals who worked for years in the field. There are also headquarters' staff that

have spent their entire career as federal employees inside the beltway. This difference in backgrounds is meaningful to the Agency's employees. This was expressed to me in a conversation with a long time federal employee who now occupies a junior leadership position at headquarters. This individual asserted that if I wanted to work in a management position at headquarters I could bolster my chances of succeeding as an executive by working in the field for several years and then coming back to headquarters with a valuable understanding of life in the field. She went on to explain how her field experience has enabled her to be a better manager. In clarifying her perspective she described the travails of another career bureaucrat who had no field experience, and performed poorly in a position that was similar to hers. She asserted that this individual lacked the experience to effectively relate to and understand field issues, and was in turn given little respect from employees in the field as they believed that this bureaucrat did not understand the challenges that they faced as field employees.

The cultural divide between headquarters and the field is significant. These communities pursue different activities, have different substantive concerns, and relate to NOAA differently. A detailed examination of one line office allows us to explore this cultural divide in more detail.

An Example of NOAA Line Office Culture: National Marine Fisheries Service

NOAA's six line offices represent the most culturally significant aspect of the organization. This is due to the role of these offices in the Agency's planning and budgeting process. The individual line offices ultimately control the disbursement of funds to their constituent programs. The cultural significance of many of the line offices stems from their long history as individual agencies already described in Chapter 3. The line offices' independent predecessors had their own cultural traditions, which were highlighted by specific identities, symbols, values, beliefs and products. The National Marine Fisheries Service, which has existed

since 1871 in one form or another, provides a good example for describing how cultural phenomena are manifested in line-office life (see Chapter 3). In the following description, I discuss the core value system and ideology that characterize the Fisheries Service, and explain how these cultural phenomena result in part from this office's regulatory responsibilities and are manifested in this line office's concurrence system.

The data and perspectives I present in this section on the National Marine Fisheries Service represent a distillation of my observations, and at times I may present perspectives that are more representative of one of the sub-cultures within this line office. I take these liberties as this is the ethnography of a complex, multi-vocalic reality that I need to describe in more general terms.

Fiske (1994) asserts two key components of cultural systems are their core value system and their ideology. Fiske (1994: 104) notes that an organization's core value system, "...informs behavior, illustrates evil and good, and validates worthwhile goals in the organization." The National Marine Fisheries Service's core value system stems from its identity as a science organization. Sound science is an essential or core value of its employees, who are typically trained scientists who rely on their expertise to manage fish stocks and carry out other supporting scientific and management activities. This line office's nickname, "Fish", reflects the significance of its management role and the historic composition of its workforce – scientists with graduate degrees in biology, oceanography, chemistry, economics, and to a lesser extent other social sciences (Clay and Abbott-Jamieson 2009 in review). Fish's scientists perceive the work they do, such as assessing fish stock populations, identifying sustainable numbers of catch, and understanding inter-species dynamics as the central work of the Fisheries Service. This belief in the significance of Fish's work to the organization by Fish's scientists who hold this

view may be characterized as ethnocentric, following Gregory (1983: 372) who asserts that ethnocentrism plays out when a community or subculture justifies its “centrality” to the organization and “emphasize[s] local priorities.”

The ideology of most organizations centers on the specific role or niche (e.g., enforcement, management) it fulfills in society. The significance or unique contribution of Fish’s work, as perceived by its workforce and officially recognized in its mission is its regulatory and management role – i.e., “stewardship of living marine resources through science-based conservation and management, and the promotion of healthy ecosystems (National Marine Fisheries Service 2009).” That is, while the National Ocean Service -- at least those parts authorized under the Coastal Zone Management Act (P.L. 92-583, 16 U.S.C. 1451-1456), the Marine Protected Areas Executive Order 13158, and the Coral Reef Conservation Act (P.L. 106-562; 16 U.S.C. 6401) -- provides regulatory functions, this is only a small portion of their responsibilities. In turn, Fish’s work is centered on and driven by it’s own Congressionally mandated regulatory and management role, authorized by the Magnusson-Stevens Fishery Conservation Act (P.L. 94-265), most recently reauthorized in 2006 and signed into law in 2007 (P.L. 109-479, 120 Stat. 3575-3665). The Marine Mammal Protection Act (P.L. 92-522) and the Endangered Species Act (P.L. 93-205) also authorize the Agency’s regulatory activities with regard to marine mammals and certain other endangered marine species, e.g., sea turtle species.

Fisheries Service headquarters’ employees assert that their role is to direct (and for some to produce) credible science to inform Fish’s regulatory policies and management decisions. A common belief among many of Fish’s employees is that the rest of NOAA, including NOAA’s corporate leadership, does not understand that this line office must fulfill a mandated regulatory role, and that specific scientific data are needed to meet this role. In discussing this belief, one

long time Fisheries Service employee, a field scientist who became a program manager at NOAA's headquarters, stated that, "NOAA's leadership doesn't care or know about science to support regulations for fisheries management." In this statement we see how the core value of good science relates directly to the mandated role of NOAA Fisheries, i.e., we need to produce sound science to effectively manage sustainable fisheries.

Fish's core value system's emphasis on science is reinforced both by the litigious environment it operates in and by its mission as it is assigned by its authorizing legislative mandates listed above. These mandates are open to interpretation, and divergent interpretations may result in conflicting actions (e.g., the protection of species vs. promoting sustainable fisheries) as the Fisheries Service's offices and programs attempt to execute their mandate-driven missions. An example demonstrating this is the Office of Sustainable Fisheries' recent conflict with the Office of Protected Resources over the Stellar sea lion in Alaskan waters (McBeath 2004). So, Fish is characterized by mandate-centered conflicts within and outside the line office.

Fish is often sued by constituents for not meeting, or for inadequately meeting, their legislative responsibilities. In one recent year, over one-thousand law suits were filed against Fish (personal communication with an upper level manager). The operational result of this office's litigious history is expressed in the words of an upper level manager from another line office who stated, that, "the leadership of NOAA Fisheries is driven by litigation and the need to do things in a repetitive way as opposed to improving [their assessments by using the newest techniques and technology]." While this perception was resoundingly rejected by one of Fish's senior scientists at headquarters, I believe that this perception does provide insight into the way things are done in this line office. The concern with litigation has led to a proactive approach by the line office's leadership that is manifest in their chain of command. To insure that all

decisions are legally defensible there is a relatively strict chain of command and concurrence process within the Fisheries Service's operations. One former congressional staffer, who now works in NOAA's Programming, Planning, Budgeting and Execution System, asserted that, "nothing happens in Fish without clearing it through a thousand channels."

This section has illustrated how fish's core value system and ideology - that center on sound science and the important role it plays in meeting its federally mandated mission - are part of a cultural system that is shaped out of reciprocal relations between the organization, and the governmental and societal context it is embedded in. It is important to recognize that to some constituent's or interested parties not all decisions are in line with the scientific direction prescribed by the Fisheries Service's science staff. This is due to a tension inherent to the roles of the regulatory agencies within the Executive Branch of the Federal Government between wise management, constituent interests and agency relations with other components of the Federal Government. In the case of the Fisheries Service, the tension lies between conducting science to support resource management, meeting pressure from various stakeholders with diverse agendas who try to force regulatory action in one way or another, often using the legal system to have their way. And, the desire of management or leadership to not get beaten up by the media, Capital Hill or the Courts -- so they establish a rigid, hierarchical, concurrence system to keep control over what goes out. At times, one of the effects of this is probably to diminish the role of science in the final decisions.

Political Appointees, Civil Servants, and Organizational Change

To be able to understand the intra-workings of NOAA, including its business processes, the Agency's substantive focus, and the working relations of staff members, I need to describe the relationship between political appointees and civil servants that has a significant impact on

these interagency-workings. Stull et al. (1986: 302) conducted an organizational culture study on a Kansas state bureaucracy in transition, focusing on its reorganization and the roles of the dominant subculture of the bureaucracy and institutionalized power. While there is a difference in the governmental scale of Stull's research and mine – i.e., a federal agency vs. a state agency – I believe Stull et al.'s (1986) findings highlight a similar set of relationships between an organization's sub-cultures and the formal organizational positions that members of the organization's various sub-cultures occupy. A sub-culture becomes dominant in hierarchical organizations when its membership holds a number of higher level positions. As Fiske (1994: 96) pointed out in her analysis, in bureaucracies new administrative appointees frequently change the workings of the agency, bringing in their views on management and on the operationalization of the agency's mission through structural, processual and personnel changes.

At NOAA there is a division between long time NOAA civil servants, political appointees and newer civil servants who were hired by NOAA's appointees. Fiske provides some insight into this situation (1994: 95-96). Political appointees generally occupy their positions for short periods of time, create a rush of new activities, and center these on the current political agenda (e.g., performance based assessments, elimination of fraud) of the dominant party. Upon entering an agency, appointees frequently remove the highest staff members (e.g., Chief of Staff, Deputy Chief of Staff) who are appointees by customary practice and replace them with other individuals whom they select. These individuals typically support the agenda and views of the agency's leadership on the organization's operation and direction. Fiske notes that these agendas are perceived as a waste of time by many long time employees as they divert attention and resources away from the mission of the agency. These sentiments were expressed by a program manager when talking about organizational guidance for NOAA's leadership and

the Agency's mission directed goals. She posed a rhetorical question and provided the answer. This individual stated, "Why aren't we putting our effort and energy on things that really matter from a science perspective? The answer is that we're very busy doing a lot of political stuff." In turn the newly placed civil servants must help institute the appointee's agenda while working with longtime civil servants who may not agree with and/or fully support the agenda of the new appointee. As implied in the preceding quote, work relationships between longtime and new civil servants who are put in high level positions are frequently characterized by distrust and can be a source of significant tension. In the case of NOAA, while the dominant subculture brought in by VADM Lautenbacher impacted the substantive focus of NOAA it also impacted the Agency's business processes or the way they get work done. I discuss this latter impact in the rest of this section.

Military culture has had an impact on the Agency's business processes (i.e., EDP and PPBES). During the administration of VADM Lautenbacher (2001- 2008), aspects of military culture – rank relations, a chain of command, and highly structured processes – were emphasized. This was evident in the backgrounds and beliefs of the civil servants who were hired by the Lautenbacher administration. In fact, the Agency's planning and budgetary process (i.e., PPBES) prior to adoption by NOAA, was used most prominently by the Department of Defense (DOD). Some of NOAA's highest level and most powerful civil servants cited their background and knowledge of DOD business and operational practices and processes as one of the main reasons for their hire, and they asserted that they applied this background to their work at NOAA.

One cultural aspect of military organizations is their highly structured working relations, involving hierarchical organization, a rigid and direct chain of command, and the significant

formalization of operational relations (Brotz and Wilson 1946; Moskos 1976; VanGennep 1909).

The institution of new business processes and their association with Vice Admiral Lautenbacher was recognized by employees throughout NOAA's headquarters. For example, one manager stated the following when asked if he knew what the executive decision process was:

I know what an executive decision is; I don't know what the executive decision process is right now, unless it's something that has been defined by Admiral Lautenbacher now with all of his various councils and NEC and NEP – I think he has attempted to formalize decision making and information sharing in NOAA in ways that NOAA hasn't seen before.

This portrayal is supported by a NOAA executive who was a former DOD employee when comparing NOAA's decision process to the process used in the DOD. The executive stated, "coming as I do from the Department of the Army, which is a relatively hierarchical, very structured environment, nobody ponders the decision process. It just is. It has been well-documented." In comparison, in speaking with a former staffer to line office leadership about the historic operations of NOAA, she asserted that relations were "flat" and that in fact this was a manifestation of the egalitarian nature of the scientific culture that permeated the Agency's management prior to VADM Lautenbacher's appointment.

While scientists are involved in status relations, they tend to foster a culture characterized by egalitarian relations and a high degree of autonomy (e.g., just let me do my science) among employees at all levels. The VADM Lautenbacher's administration set up a rigid and specific chain of command in which information is channeled upward via a repeated linkage of subordinate-superior relations. The former line office staffer mentioned above, asserted that the Agency's scientists and program staffers (many of these were trained as practicing scientists) still don't understand this reporting system. In turn, one critique that has been leveled at the administration and various processes (i.e., EDP, PPBES, KDP) they have implemented is that

information only (or predominantly) flows upward but fails to flow back down. One upper level program director, in offering a critique of the NOAA's EDP and the PPBES process that works within it, made the following statement regarding the failure of information to flow back down through the organization:

And it goes, again, from a very wide base, typically, to a very narrow point. The final decision gets made that says that we're going to spend \$15 million on Y and we're not going to spend \$100 million on X. There is very little conveyed back down to this broad base about why that decision, those two decisions were made – a) we're not going to do what you recommended, and b) we're going to do something completely out of the blue that no one ever talked about anywhere.

The top down approach to information flow and decision-making seems to be in conflict with the conceived ideals and historic processes of some portions of the Agency in which the operational or informal hierarchy was kept at a relatively low degree and there was greater information exchange between subordinate and superiors. The preceding section provides insight into how NOAA's appointees have shaped the dominant subculture and in turn reshaped formal and informal aspects of the Agency, such as its business processes, employee relations, and executive decision-making.

Aspects of Life at Headquarters

In this section I describe various cultural details of life at NOAA's headquarters, this includes NOAA's Silver Spring Metro Center complex and NOAA's Office within the DOC in downtown Washington, DC. These phenomena include meetings, "fire drills", and a cultural divide between science and management.

Meetings

At NOAA's headquarters one of the most pervasive activities that crosses all line offices and involves employees of all statuses is the meeting. A frequent comment said by a headquarter employee in response to being asked the question, 'What did you do today?' is 'I've been in

meetings all day.’ Meetings are held by various groups throughout the Agency’s headquarters, by staff offices, councils, programs, working groups, management teams, goal teams, program offices, and matrix program teams. Some common perceptions of meetings include their inefficiency, their lack of clarity or ambiguity, and their related lack of direction/leadership. To a lesser extent, perceptions of meetings were more positive in nature, as individuals identified a productive meeting, an important meeting, and a good meeting. For many of NOAA’s upper level management and executive staff at headquarters, the work of NOAA consists of attending meetings, one after another, most days of the week. Meetings can be significant events, particularly those that are used to address major events in the PPBES cycle, including planning meetings, or strategy meetings that focus on the content of the Agency’s Annual Guidance Memorandum, or planning for the use of a NOAA vessel. NOAA employees of all statuses will frequently ask their immediate colleagues if they attended a specific meeting, e.g., ‘Did you attend the planning meeting on issue X?’

Meetings vary in their level of formality. Those meetings attended by NOAA’s highest executives have set procedures, and presentation formats, focus on predetermined issues that are addressed in briefs and often result in actions or decisions. In turn, there are also relatively informal meetings, such as those held by office staff working groups, which may comprise from two to four individuals. These meetings frequently focus on a single topic which centers on some type of project or task the group must complete. In summation, meetings are common events and a routine part of life at NOAA’s headquarters. Their objective, degree of formality and protocol vary with the status and intent of the participants, and the subject of the meetings.

Fire Drills

One feature of bureaucratic life at headquarters is the generally bothersome and ubiquitously despised “fire drill.” This term is used to describe urgent requests to Agency personnel for information from some higher level within the federal bureaucratic system such as the President’s Office of Management and Budget (OMB). Fire drills provide a view into the daily challenges faced by upper level bureaucrats and the beliefs and practices they use to cope with bureaucratic work. These requests may be most associated with information requests from Congress to the Agency. They also come from other levels. These requests are frequently filtered by the various offices they pass through before they reach those who must respond to the request. As a result of this concatenated process and the corresponding lack of direct access to the requesting authority, these requests are often ambiguous to those who need to understand them most, the responding party. One longtime NOAA employee and program director offered a description of the burdensome and frustrating nature of responding to a fire drill. In offering a description of a fire drill channeled through a superior, he touched on the challenges faced by upper level managers, including, time constraints, concurrence and ambiguity. He stated:

What are you doing in A, B, C, D, or E? Good question – he deserves an answer to that. We certainly have that information here and the ideal is that you want to get back to him quickly to show that you are responsive.And I’m told I have to have the information together by tomorrow because it’s going to take a week and a half to clear it through the NOAA process in order to make sure the responses are appropriate. So the substantive part of putting together the responses [are actually given the least] amount of time, because [(interviewer - we’re not concerned about getting the right answer, we’re concerned about getting an answer and making sure it’s vetted by whoever it needs to be vetted by. And the vetting itself is a quasi-vetting.)] That’s right! Right, and I could give you 100 percent better answer if I had – my information is not in the office in a file here, it’s out in the field You’ve got to find the person, find the right person on the staff, and you will get an excellent answer. You may have to re-write it so it’s in plain English, understandable up the line, so that will take a little time, but you will get the accurate information. ... Right.

This program manager alludes to the ambiguity that often characterizes fire drills when stating, “That’s right!” in revealing that he is frequently not told the required degree of accuracy or precision needed in his response to a fire drill. The requesting authority could make her needs more explicit, by stating the type of response required – e.g., exact figure, ‘ballpark figure’, or a close estimation. Fiske (1994: 98) acknowledges this ambiguity, as she asserts that bureaucrats learn through cultural knowledge how to operate in a federal environment characterized by ambiguity.

The preceding quote also brings attention to the various concurrence processes that characterize life at NOAA, as the program manager stated that “it’s going to take a week and a half to clear it through the NOAA process in order to make sure the responses are appropriate.” While concurrence systems are burdensome characteristics of bureaucracies, they do have symbolic and functional value. In a symbolic sense, if everyone (e.g., all offices and key executives) participates, then no one individual or office can be blamed if the outcome of the decision or action goes awry. In turn, concurrence has functional value in that the sharing of information for concurrence contributes to robust coordination, and as a result is more likely to foster efficient and effective business processes (Fiske 1994: 98).

The last aspect of life at headquarters that this quote displays is time constraints. NOAA’s upper level managers and executives work under constant deadlines and routinely answer quick response requests. These time constraints have a definite impact on the amount of time NOAA’s leadership is able to dedicate to a given task. What is most important about fire drills is that they provide a snapshot of several of the routine challenges faced by NOAA’s leadership and give us some insight into the various interests that these individuals consider understand while conducting the work of the Agency and making decisions.

A Cultural Divide: Information transfer from Science to Executives

At NOAA the need to communicate complex scientific information to executives, who may or may not have scientific training and are probably unfamiliar with the topic at hand, is significant. Scholars have identified a cultural divide between scientists and policymakers that manifests itself when these two groups communicate, or more accurately, mis-communicate as a result of different beliefs and values about the purpose, comprehensiveness, and form of information (i.e., clarity, directness, application vs. accuracy, completeness, complexity) (Bernard 1974; Cash et al. 2002; Snow 1959). A similar divide exists within NOAA; and often plays out between NOAA's highest executives, members of the NEC and NEP, and the agencies' upper level program managers and directors who provide the conduit between the Agency's practicing scientists and NOAA's executives. Part of this divide is made manifest and driven by the different tasks these groups are doing. Scientists are frequently involved with complex issues characterized by uncertainty and tend to provide rich answers aimed at conveying these subtleties. Policymakers (both intra-agency and extra-agency) try to make decisive and defensible decisions, and seek information that is clean, concise and direct in its message because they frequently have little time to make decisions.

One set of venues where this cultural divide is made clear is in the meetings of NOAA's councils, and particularly in the meetings of the NOAA Executive Panel. An introduction to accepted information standards is provided by a NEP member, in her description of NOAA's EDP. The member stated,

So people make presentations to the NEP and/or the NEC. There's a format they follow on the presentations and they make sure that the information has been made available to the NEP and the NEC before the meeting. And usually, the presenter is allowed to go through his or her presentation only answering clarifying questions, and then at the end it's thrown open for discussion. The briefing has to be either informational or decisional.

It has to be spelled out very clearly in the briefing and the one-page assessment is kind of like a summary of what the person wants to get across in the briefing.

In this statement the participant describes the structured presentation process that was implemented by VADM Lautenbacher and the civil servants he hired.

One of the most prominent manifestations of a cultural divide between scientist and executive decision-makers is evident in the words of a NEP member. This member responded to the Lautenbacher administration's implementation of the Executive Decision Process (EDP) and all of the forums and protocols associated with it, which include format requirements for presentations to NOAA's executive councils in the following quote:

The process was put into place as there was no consistency of information or format, if you would, when things came forward. And so the organization was somewhat left up to the possibility in one case that you had someone who kind of understood how to present the issues that senior leadership should expect to see presented to them and, therefore, you had a good presentation coming forward. And then in other cases, you had instances where the individual pulling together the presentation maybe didn't have that sense of what senior leadership information needed. And so you had very inconsistent kind of levels of information quality and information coming forward, and so even if you had a very well-run, integrated decision process across the Agency – [without the standardization of informational materials the process fell short in the meeting room as a result of informational shortcomings]

In turn, the perceived merits of the EDP are stated by a NEC member in identifying the kind of information he desires access to when making a budgetary decision. The member also spoke to the perceived inability of some of the Agency's scientists to communicate effectively with NOAA's executives. The member stated,

Sometimes we do not -- it is harder to ask those -- ask and understand and really have a dialogue on those issues, because they often require more specialized expertise or -- which is not my opinion -- I think that our scientists are not always very good at explaining it to people who are not experts. So as you sit and listen to General Kelly that will be a theme. Because our issue areas are fraught with scientific complexity, it does not obviate the need to be able to explain them clearly to people who are not experts because the vast majority of people who are going to make resource decisions about these programs, are not. So for me, the real challenge is to feel that we got enough information of the right type in order to make a decision.

The overarching point of this sub-section is that the cultural divide between NOAA's scientists and executive decision-makers manifests itself in a communications gap. This gap results in miscommunication, frustration, and inefficiency.

The Workings of Planning, Budgeting and Decision-making at NOAA and within the Federal Environment

Overview

In this section, I examine the relationship between NOAA and the larger federal context (i.e., the U.S. Department of Commerce, the President's Office of Management and Budget, and Congress) by discussing the Agency's planning, budgeting and decision-making process. This will illuminate some of the perspectives, informal structures, and patterns of interaction that constitute the relationship. It is through the budget process that the Agency's leadership determines the direction of NOAA's efforts and the specific allocation of federal dollars among Agency resources. An examination of NOAA's Executive Decision Process (EDP) reveals the different views of the planning and budgetary process by bringing the perspectives of some of NOAA's executives and upper-level managers on the Agency's strategies, programs, and alternatives. An examination of NOAA's Planning, Programming, Budgeting and Execution System (PPBES) and the federal budgetary and planning process shows that NOAA's leadership must formulate its strategies, programs, and alternatives with the concerns of extra-organizational parties (e.g., congress persons, constituent groups, non-governmental organizations, executive branch entities, and advisory panels) at each step of the process.

NOAA's Executive Decision Process (EDP)

Perceptions of the efficacy of the EDP vary across the Agency's subcultures (e.g., line offices, councils, programs). Insight into the workings of NOAA's EDP can be gained by examining two distinct views of the process: one used by a corporate leader and the other used

by an upper level manager. As described earlier, the EDP is a formalized decision process in which issues are to rise up the chain of command to be resolved by the appropriate level of authority as determined by their scope and breadth. One of NOAA's highest executives asserted that the EDP was needed, "because you need to have a process by which people understand a decision can be achieved. In the absence of a [formal decision] process, informal processes will exist but they will advantage only those who understand them." This individual goes on to state that,

...[O]ne of the significant values of the documented NOAA decisions process is that if you are someone in NOAA who needs a high level decision made and you are willing to read the instructions and follow them, you can get a decision made. It may not always be timely because our process has a lot of rework steps and a lot of poorly understood consensus steps, but if I am Dr. Smith in a NOAA Fisheries Science Center, and I am willing to be tenacious, I can eventually work up through the bureaucracy and get a decision made by the Under Secretary if necessary.

In contrast to this statement, an upper level NOAA program manager stated that, "the way you get things done is not through this organizational structure (i.e., NOAA's Executive Decision Process, PPBES and NOAA's leadership), it's because of people caring about what they do."

These opposing statements represent a sub-cultural difference between NOAA's highest executives and the program managers and directors who work under them at the line office and matrix level. NOAA's top executives believe that the EDP allows middle and lower level employees to gain access to NOAA's leadership and impact the direction and operations of the agencies. In turn, many of the Agency's upper level managers do not hold the efficacy of this decision system in high regard and assert that it is through the actions of dedicated employees and personal relations that contributions toward Agency decisions on major issues are made.

Programming, Planning, Budgeting and Execution System (PPBES)

The following discussion sheds some light on how the Agency's PPBES links to the larger federal budgetary process involving the DOC. In addition, I provide insights into how line office interests may override integration efforts due to their control over the execution of funds.

A major series of tasks embedded within the PPBES process is the proposal, assessment and funding of "new starts", i.e., new programs and projects. In the competition to fund new starts, proposals referred to as alternatives rise through various levels of scrutiny at the organizational level (i.e., NOAA Budget Office), at the Department of Commerce, and at the level of the President by the Office of Management and Budget (OMB), prior to being scrutinized by Congress. This is recognized by Fiske (1994: 106) who notes,

Once established by statute, federal organizations are dependent for their subsistence base on Congress and the American Public. Their subsistence [i.e., budget] activities revolve around the annual appropriations and authorization cycle of the Federal government. Agencies must justify their budget to Congress and OMB, justifying enhancements for new expenditures, and nurturing relationships with constituencies who can help in the appropriations and authorization process.

Budget alternatives are scrutinized at each level by analysts who request supporting materials to explain the utility and value of the project to the Agency and American society. The exact steps or vetting points in NOAA's federal budgetary process were identified in a discussion with a NEP member who was responding to my question about the existence of windows of opportunity in the political-fiscal cycle, and the need for NOAA to have sound rationales for their budgetary alternatives. The member stated the following,

I guess in the window of opportunity the other comment I would make is I think you get so many shots at the stakeholders who have to nod in the right direction, so many shots at DOC, so many shots at OMB, so many shots at the Hill before -- if you have not gotten your act together, they have said ... I've heard this before ... you didn't have your act together the last time. ... Goodbye, see you.

This quote demonstrates that NOAA's staff must tailor their rationales for alternatives to the various parties involved at each step in the budgetary process.

Alternatives are frequently associated with a constituent group, that is, a group of people that will somehow benefit from the implementation of the project or program offered by the alternative. One example of how agencies go about assessing and justifying alternatives is provided by a member of the NOAA Executive Panel (NEP) in his discussion of how individual NEP members in the interests of their line office tend to represent their constituents on the issues that come before the panel. He stated,

NOAA is a very politically sensitive organization. ... and it is not fully resourced to meet everybody's needs so it is actively involved in the allocation of scarcity, pretty much all the time. ... So that is kind of what drives us to have those kinds of conversations. Because any decision we make, somebody is not going to like it; because you have people who have different views of what is happening. [In turn,] ... the NOAA Budget is very highly earmarked as a percentage of its budget. ... So there is a 'Daddy' for just about any line in the NOAA budget. Somebody, someday, got that put in there. So when you are thinking about putting in more money, you have to consider not just where it might be organizationally easiest to budget it, but you also need to consider where it might be more easily appropriated.

NOAA's executives must give consideration to constituent interests when they are making planning and budgetary decisions. They must balance diverse constituent interests with the Agency's mission, and the larger political agenda set by the executive branch.

Line office interests, including constituencies and other mission related concerns, can push a line office away from a commitment made in the planning and programming phases. While NOAA conducts its programming and planning through cross-agency working groups (i.e., goal teams and matrix programs), the final communications regarding projects or alternatives come from representatives of the relevant line offices. These line office representatives are frequently (though informally) perceived as biased entities acting in their own interests, by favoring those parts of an alternative, or other alternatives, in which their line office

is likely to gain support in the form of funds. One participant, in critiquing the executive decision process as ineffective, provided insights into how the Agency operates within the DOC and the impact of line offices on programming and planning in discussing an alternative that did not make it through the DOC's budget review. He stated that:

What [our inter-program planning group] did on ... [alternative x] was not helped by the system, not helped by the NEC-NEP process. We put together an incredibly important alternative and got it through, got NOAA to approve it, it goes to the DOC and frankly gets no support from NOAA. Because the way the budget system worked, the input back to DOC on what they had done came from the line office representatives; it did not come from the program mechanisms.

So, while various cross-agency entities (e.g., goal teams, matrix programs, councils) may agree on a particular alternative, the leaders of line offices are in a position to push their requests forward which may be different from those identified by the various cross-agency teams. As in other parts of the federal government, in NOAA a variety of groups compete for funds.

The preceding subsection on PPBES illuminates the Agency's relationship with the DOC and the related need to understand the needs of constituencies, the importance of thoughtful appropriations, and the challenges to fostering an integrated NOAA.

NOAA, the DOC and the Federal Environment

In the following passage a member of the NEP identifies some of the ways that the DOC can impact the functioning of NOAA, including the projects or programs the Agency undertakes.

The member stated:

Yes, and the DOC culture, if you would, and its turnover and departures...DOC has seen a heavy turnover. Their acquisition person left; their administrative services person left; their security person left, all leaving voids in leadership, arguably to the extent that there was leadership there, created a further void in leadership that NOAA has had to step up and fill or kind of go around, if you would. Plus in many cases there is, I believe, a perception that the Department oftentimes does not want to take a stand. They'd rather not have their fingerprints on something, unless it is a safe something. ... So if there is a risk associated with something, the Department does not want its fingers on it.

The above quote reveals how staffing changes in the DOC have an impact on NOAA. The quote also reveals that some members of NOAA's leadership believe that the DOC has particular tendencies, or 'likes and dislikes', in regards to the efforts they will support, and that NOAA's leadership in some instances may navigate DOC forces to mitigate their impact on NOAA's activities.

NOAA's leadership must also work within the bounds put forth by the President, as executed by the Office of Management and Budget (OMB) and by Congress. The President's agenda is championed by the OMB and thus efforts that don't fit the President's political agenda are more likely to be challenged by OMB review. Even when NOAA initiatives successfully pass through the OMB, they may still be challenged via Congressional review. If the interests of strong congressional groups are not met, their Congressional representatives will contest the corresponding alternatives. In talking about constituencies with a NEP member, he described the role that members of Congress can play in influencing NOAA's activities, and in doing so implied that at times NOAA's leaders must be cognizant of political interests in the congressional arena and must know how to deal with them. The member stated the following:

... So we have components of the United States Senate that feel very strongly about [issue x]; ... And so there is a set of coastal senators who are particularly interested in [issue x] and they also happen to be represented in some form or fashion on our Appropriation Committee. ... Then there are a set of people who are interested primarily in fisheries activities, who are also represented, either by their own participation and this includes the House, on our Appropriations Committees, or in our Authorizing Committees. They all have a say about where those resources are put into the NOAA budget and in directing us to who should implement them.

There are many influences that affect NOAA's activities. Because the DOC is NOAA's home department, it strongly influences the function of the Agency. NOAA must be aware of the DOC's interests (i.e., political and mission related) and must navigate and work with internal changes in the Department. NOAA must also attend to the OMB's interest and concerns as well

as the interests and concerns of Congress, which is influenced by the concerns of various constituent groups.

Some Final Thoughts on the Cultural Phenomena of NOAA

The intent of this chapter has been to identify some of the many ways that headquarters culture, office – related beliefs and behavior, business processes, and changes in leadership and work roles all impinge on and contextualize the work life of NOAA’s executives. Through looking at life at NOAA’s headquarters, I have tried to portray how different types of work and work objectives impact the way employees interact. And, by examining one of NOAA’s constituent line offices, The National Marine Fisheries Service, I have highlighted how the emphasis on science in this line office’s mission impacts working relations and processes, including the concurrence system (chain of command) and decision-making. In addition, through examining VADM Lautenbacher’s initiatives (PPBES, EDP, and matrix programming) I have portrayed how ideas and values are manifested in the emphasis placed on structured business processes and the influences of the dominant NOAA Headquarters’ subculture.

CHAPTER 5

METHODS AND ANALYSIS: AN INDUCTIVE RESEARCH APPROACH

Research Design

Two distinct analytical techniques, a grounded theory approach (GTA) and a comparative case study approach are used in this analysis. Both are applied in the analysis of the primary data I collected, including interviews of participants, direct observations, and textual material in the form of council documents. I used the GTA to identify the topics and themes of decision-makers discourse during council meetings. These constitute the substance of executive decision-making. I used the case study to understand the actual process of decision-making - i.e., what events and/or transactions led to a decision. By synthesizing both of these techniques, I provide an analysis and one interpretation of how decisions are made.

In this chapter, I explain the methods, techniques and processes I used to collect and analyze the data. I start with a description of how I selected my data sources and a general description of my data. Then I describe the usefulness of participant observation. I follow this by describing my data-collection techniques, including interviews, meeting observations and document collection. I then describe the epistemological underpinnings of my approach – i.e., critical realism. I continue by recounting my analytical processes, including the GTA and case study analyses. I follow this by discussing the scope of my research, the criteria for assessing its merit, its replication and research ethics. I close this chapter describing my position as a researcher and the location of my research.

Selection and Description of Data

Selection of Data Sources

Purposeful sampling is common in qualitative research because it requires the use of data sources (e.g., individuals, documents, observations) that are directly related to the phenomenon under investigation (Creswell 1992; Handwerker 1997; Katz 1995; Lincoln and Guba 1985). As I sought to understand just how decisions were made by NOAA's executives, my study focused on NOAA's Executive Decision Process (EDP), and more specifically on a subset of the people and processes that work within the EDP, including four of NOAA's councils, their members and council meetings. These councils included NOAA's two highest councils, the NOAA Executive Council and the NOAA Executive Panel, as well as the NOAA Ocean Council and the NOAA Research Council.

My primary interview participants were principle and secondary members of the four councils (see Appendix E-H for council membership lists). I also interviewed leaders of several NOAA programs and upper-level staffers from line offices and corporate bodies with varying degrees of involvement in NOAA's EDP. I also observed council meetings and collected meeting documents.

A Description of the Data Sources

I requested interviews with 29 NOAA employees and completed 25 interviews with 24 of these individuals (Figure 4.1) I received no response from four of the 29 candidates. The pool of participants included ten females and fourteen males. All of the participants had graduate degrees and/ or specialist training. Participant backgrounds were broad, with training predominantly in the physical and life sciences, policy and governmental studies, business and finance, maritime studies, management and military studies. Thirteen of the participants held

doctoral degrees. Approximately one-quarter of participants had work experience in the defense or military arena. Participants' years of government service ranged from approximately three to more than 40. Twenty-three of the 24 participants worked at NOAA's headquarters near Washington, DC. Nineteen of the 24 participants were official members — principle and/ or supporting — of the four councils under observation (see Appendix E-H for a list of council seats by affiliated office or division).

Table 5.1: Descriptive Statistics Characterizing Interview Participants

Interview Requests: Interviews Completed	29: 25 (1 individual was interviewed twice)
Female: Male	10: 14
Graduate Degree or Specialized Training beyond BA/BS	24
Educational Background	physical and life sciences, policy, government studies, business, maritime studies, management and military
Doctoral Degrees	13 out of 24
Worked in Washington, DC Metropolitan Area	24 out of 24
Military Affiliation (Civilian and/or Officer)	7 out of 24
Members of One or More Councils	19 out of 24
Political Appointee vs. Civil Servant	2 out of 24

I observed 32 council meetings: seven meetings of the NOAA Executive Council, eight meetings of the NOAA Executive Panel, one joint meeting of the NOAA Executive Council and NOAA Executive Panel, 11 meetings of the NOAA Research Council, and five meetings of the NOAA Ocean Council. I collected official meeting documents for each of the observed meetings when they were available. The documents included meeting minutes, decision memoranda, issue assessments, Microsoft PowerPoint® presentations, works in progress, informational handouts, as well as biographies and general NOAA documents. I also collected meeting documents for seven meetings that I did not observe to expand the breadth and depth of my data (five meetings per each council). I collected 39 sets of documents in total.

My Cases: Council Groups and Individual Meetings

Cases that are rooted in their context (e.g., classrooms, schools, organizations and meetings) are considered “focused and bounded phenomenon...” according to Miles and Huberman (1994: 10). Case studies, including mine, that are focused on cases within cases are called “embedded cases”. Another example of an embedded case would be a study comparing three schools with specific classrooms as cases or sub-cases (e.g., four classrooms per school) (Miles and Huberman 1994: 26). The literature (Eisenhardt 2002: 27) for case study research suggests that the selection of four to ten cases is appropriate for a case study because less than four cases lessens the probability for construct or theory development and more than 10 cases creates an unwieldy and overly complex data set. Because I actually had cases within cases, — each council group was treated as a case, as was each council meeting — it seemed reasonable and given the massive volume of data I had, it seemed reasonable that I randomly select five meetings for each council group for my case study.

Participant Observation

I partook in the regular activities of headquarters’ personnel (including executives) as participant and observer during my research. Social scientists like Bernard (2000: 324) believe that participant observation is an excellent technique for gaining familiarity with the phenomena and establishing trust with the community under investigation. As a John A. Knauss Fellow and a STEP employee, I worked at NOAA’s Silver Spring Metro Center complex for 21 months. These roles brought me close to the individuals I was studying. The familiarity I gained with the institution’s operations and employees, and in turn the workforce’s familiarity with me was invaluable to the success of my research. In addition, the long hours I worked and my presence there as a fellow established my credibility because it contributed to developing a rapport with

staff in many of NOAA's major offices. This rapport facilitated my research efforts because people were familiar with me and less inclined to be suspicious or fearful about the intent of my research. In turn, the fluency I gained with the employees, operations, procedures and language used at NOAA bolstered my understanding of the Agency and aided my execution of the research.

Data Management and Research Techniques

In this section, I describe my data storage, management and collection techniques. I begin by identifying the various formats I used for storing data. Then I describe how I executed data collection using interviews, direct observation and the collection of primary documents. Each of these techniques provided direct access to the phenomenon of study — executive decision-making.

Data Storage and Management

My dissertation is housed on my personal laptop. All data and project management documents are stored in a Microsoft XP[®] folder as Microsoft Word[®] Documents and Adobe Portable Document Format (PDF)[®] Adobe Systems files. These documents include meeting observation logs, interview transcripts, meeting documents, pre-interview documents, draft chapters, relevant literature, literature references as well as field and analysis notes. I conducted textual analysis with the use of QSR NVivo 2.0[®], a qualitative software package, that works with rich text files (RTF). I downloaded data documents in compatible formats (i.e., Microsoft Word[®], Microsoft PowerPoint[®], and unlocked Adobe PDF files) including all interview transcripts, meeting observation logs, many of the meeting documents and several general NOAA documents into an NVivo project folder labeled 'Dissertation' for analysis. I used two voice recorders — a Sony[®] digital recorder (ICD-SX46) and a Sony[®] cassette recorder (TCM-

200DV) —to record the interviews. I stored digital recordings as digital voice files (DVF's) and used them to transcribe the interviews and, if needed, for replay during my analysis. I used recorded cassettes as a safeguard against loss or corruption of the digital audio data and stored them alone in a secure location.

Interviews

Throughout my research, I conducted interviews with semi-structured open-ended questions. In keeping with grounded theory's iterative approach to research, the content and focus of interview protocols varied relative to the concepts that were being examined and probed at the time of an interview, the participant's council affiliation, and his/ her official position and meeting attendance. I used initial interviews to discuss general themes in relevant literature on the organizational, communicational, political and individual aspects of decision-making (Miles and Huberman 1994; Wilms et al. 1990). This generalized approach was not highly productive, because participants stated a desire for questions grounded in their own activities. As relevant terms, concepts, and exchanges arose from interviews and meetings, I used these to ground and focus my questions. In so doing, I re-created specific meeting conversations to elicit relevant responses. I based these re-created meeting conversations on specific instances of conflict or prolonged discussion that arose among participants, and used them to explore relevant terms, concepts and exchanges further (Spradley 1979). In my scenarios I presented a specific deliberation scenario that detailed the forum, meeting date, topic of discussion, and the involved members. I asked participants questions about the concepts and activities that arose in these scenarios (e.g., 'Can you explain your commentary in scenario 'x'?', 'What were the major issues at stake in this discussion?', 'What is significant about Dr. X's comments?'). I pursued relevant responses with probes (e.g., 'Can you talk some more about 'x'?', 'What do you mean

by ...?'). These questions aimed to solicit the meaning and significance of the emerging term, concept or exchange from the participants' perspectives.

I requested interviews formally via e-mail, in which I described the research and my intentions, as well as a standard 'informed consent' form to all potential participants (see Appendix D.B and D.C for example forms). In some instances, where I was familiar with a potential interviewee, I approached him/ her informally to explain the nature of my research and my desire to interview them prior to sending them the informational documents. I asked interviewees to dedicate approximately one hour for an interview. Actual interview times ranged from approximately 30 minutes to 1.5 hours. The length of each interview was dictated largely by the availability and willingness of the participant. Because participants in my research represent NOAA's elites, their heavy workload, tight schedules and expectations rooted in professionalism necessitated that I conducted relatively directed and efficient interviews with them (Hertz and Imber 1995; Marshall 1984).

Meeting Observations: Direct Observations and Document Review

I collected data from council meetings with two techniques, direct observation and meeting document review. I recorded meeting observations using continuous monitoring (Bernard 2000: 376). While I sought to capture conversations verbatim, this was not possible for many of my observations because of the high speed and nuance of social interaction at the meetings. As a result, my notes contain a mixture of verbatim conversations, approximations of conversations and general descriptions of discussions. As I identified terms, I narrowed observations to explore their variance in different situations and relation to other terms. I also noted inferences about a participant's intentions or biases, took notes on conceptual hunches and relevant commentary (e.g., comments regarding my presence as an observer) and recorded time

intervals for some meetings. I did not record informal conversations between participants prior to the start of meetings, during breaks or after meetings.

For each meeting, I recorded observations and a standard set of meeting characteristics including the agenda, attendee names, seating positions for principle members, meeting location, the time of the meeting and its duration. The meeting observations generally resulted in a five- to 15-page typed document. I collected PDF and Microsoft Word® documents via email and from council Web sites. Sometimes I could not obtain all documents associated with a meeting, because some documents were limited to specific council members' use.

My Epistemological Approach: Critical Realism

Research is generally premised on a particular philosophy of science, such as positivism. My approach to science is critical realism. Sayer, in his work on critical realism, states "... the world is characterized by emergence, that is situations in which the conjunction of two or more features or aspects give rise to new phenomena, which have properties that are irreducible to those of their constituents, even though the latter are necessary for their existence (2000: 12).” This approach emphasizes the discovery of the causal mechanisms associated with objects, and the determination of how these mechanisms work, as well as the identification of the conditions under which these mechanisms become activated. Hedstrom and Swedberg (1996: 290), in discussing critical realism, note that in the social sciences, “the elementary ‘causal agents’ are always individual actors, and intelligible social mechanisms should...always include explicit references to the causes and consequences of their actions. [And, that]...understanding is obtained or enhanced by making explicit the underlying generative mechanisms that link one state or event to another, and in the social sciences actions constitute this link.” In my research, I focus on the causal role of those individuals who participated in NOAA’s executive decision-

making processes, and particularly on the roles of members of the four councils mentioned above. In studying these NOAA councils, I came to understand their deliberation process, what are the powers or assets of individuals, and how the differences among individual council members played out.

Data Analysis: A Grounded Theory and a Case Study Approach

My grounded theory analysis began in September 2006, shortly after I started collecting data, and lasted until March 2008. My case study investigation focused on a subset of the data I collected during my grounded theory investigation, and lasted from October 2007 until March 2008.

Grounded Theory Approach

I began my grounded theory analysis after I completed several interviews. I read interview transcripts and identified recurring terms. During these initial interviews, I identified a large number of terms. I began observing council meetings and sought to explore, substantiate and link terms captured in the interviews. Likewise, I used interview questions to explore terms identified during meeting observations. I developed concepts from linkages or associations between similar terms (e.g., 'politics' and 'political'). I continued identifying new terms and concepts while exploring previously identified terms, discerning their varying forms and relationships to other terms. While data from the interviews and meeting observations drove my investigation, I did not spend a great deal of time reviewing meeting documents until I was well into the research process. I chose these documents selectively according to their relevance to a term or a particular topic. As terms were confirmed with repeated observations, I focused my textual analysis on enhancing my understanding of these terms by comparing variants of the

same or similar terms. This process entailed the expansion of some concepts, the deletion of others and the aggregation of others.

Eventually, my analysis began to center on the interrelationships between concepts (and their related terms) by creating tree nodes out of the identified free nodes. NVivo uses a tree-like organizational structure, allowing for the development of conceptual frameworks. The relationships between terms provided the basis for identifying a higher order of concepts, or major categories. These categories reflected what executives thought about themselves, the challenges they faced in making decisions, and the recognition of who made decisions in the Agency's EDP.

A Case Study Approach

My case study investigation is rooted in the data collected in my grounded theory research. This approach allowed me to identify the events, transactions and so forth that led to a decision. I executed my study in four stages: 1) the identification of analytical categories, 2) a meeting analysis, 3) a council analysis and 4) a system analysis. Council meeting minutes, meeting agendas, observational notes and issue assessments serve as my primary sources of data, while I used briefing presentations and interview transcripts as supporting evidence. This case study analysis gave me insight into the processes that characterize each council and an understanding of the relationships between councils. Below is a summary of my four analytical stages:

Stage 1: Identification of Analytical Categories

I selected four categories — i.e., *issues or agenda items*, *decisions*, *actions*, and *impetuses for council activity* (hereafter *impetuses for activity*) — and used them to organize data from 20 randomly chosen meetings (five meetings for each council) into tables for analysis. This analytical technique aids the case study process by narrowing its scope, thus making it more efficient (Eisenhardt 2002; Miles and Huberman 1994). The analytical categories were rooted in the data, as they were explicitly and routinely discussed in meetings and interviews (with the exception of *impetuses for activity*), and noted in council documents. My rationale behind the selection of these particular categories lies in the case study literature, which indicates that analytical categories can be derived directly from the phenomenon of interest (Eisenhardt 2002: 18). While the category *impetuses for activity* was not explicitly used, it was implicitly utilized by all of the councils. For example, during meetings council members often stated why the council was engaging the issue at hand (e.g., based on a request made by a staff office or by the Deputy Undersecretary).

Stage 2: Meeting Analysis

I analyzed the aforementioned data to identify the components of a typical meeting for each of the four councils. This analysis resulted in a composite structure of a typical meeting for each council as I identified the nature, characteristics and frequency of the items that comprised each analytical category — i.e., *issues or agenda items*, *decisions*, *actions*, and *impetuses for activity*. This static composite provided the basis (i.e., data) for identifying processes in stages 3 and 4.

Stage 3: Council Analysis

I analyzed the processes of each council by examining the frequency of items associated with each category. In so doing, I gained an understanding of the operations of each council by

identifying the relationships between analytical categories within each council group (e.g., frequency of *issues* vs. frequency of *decisions*).

Stage 4: A Systems Analysis

I used a between-council analysis, or systems analysis, to analyze the flow of members, information and resources into and out of councils. This tool helped me to understand how the functions of each council related to another, as well as to other parts of the organization and to the extra-organizational environment. I completed my case study with a synthesis of my findings by offering an interpretation of NOAA's EDP.

The Limitations of My Research

Social scientists have long known that all research is circumscribed by subjectivity, individual interests, structural and institutional forces, resource limitations and many other factors (Bernard 1998; Lincoln and Guba 1985; Marshall 1984; Stocking 1983). Specific aspects of my research constrained my ability to conduct the research and limited the phenomena I was able to observe. While my fellowship provided access to the relevant deliberative phenomenon, its temporal demands affected the breadth and execution of my study. I encountered several other challenges related to participant reactivity, constrained access to the phenomenon of interest, the circumscription of my data collection activities and intricacies of conducting research on elites. I discuss limitations in the rest of this section.

The role of fellows varies in terms of responsibilities and duties. My position was somewhat unusual in that I was thrust into a relatively senior role — the unofficial acting coordinator of a major NOAA matrix program — for the first seven months of my fellowship, because the program I worked for was short staffed. As a result, I handled a large workload and

routinely worked more than nine hours a day. Because my research revolved around a data collection process that took place during regular office hours, it was imperative that I had time during the day to conduct my investigation. During the last third of my fellowship, I eventually was granted one day off a week for research purposes. By cobbling together time on weekends, nights and my day off, I was able to proceed, albeit at a much slower pace than I desired.

The long hours I put in as a fellow had an unexpected and negative impact on my execution of a grounded theory approach. Unlike other approaches to research in which data collection and analysis are discrete procedures, the iterative nature of a grounded theory approach necessitates that the researcher pursue an intellectually intense back-and-forth effort between data collection and analysis (Corbin and Strauss 1998). Conducting this iterative process required a great deal of time and extended access to the phenomenon of study. Because I was not able to start data collection until some five months after my proposed start date, the time I had to conduct my research while still a fellow — with its attending privileges of access and entrée — was significantly reduced. This scenario was compounded by a diminishing tolerance for my research on behalf of some members of the community under study. Because of several incidents I discuss later in this chapter, some individuals became increasingly concerned about my presence at high level meetings and my growing knowledge of meeting deliberations. In light of the possibility of losing access to council members and their meetings, I felt the need to push ahead with data collection, while having done less analysis of the data collected than what I considered to be adequate. As a result, I believe that some of my earlier observations were conducted in an overly broad manner. I was fortunate in that my STEP allowed me to continue conducting my research at NOAA after my fellowship was completed.

My observations were affected by subject reactivity on several occasions. Reactivity arises when research participants are aware of their participation and alter their activities in reaction to the researcher's presence (Guba and Lincoln 1985). I could detect reactivity on various occasions during my research, with the most explicit incidents of reactivity occurring during meeting observations. At one meeting, a member cautioned the other participants about the manner in which they were conducting (i.e., regarding the topic and framing of their commentary) their discussion, by announcing to the room that they should be careful in what they say "especially as there is a *note taker* in the room." On another occasion, while a council meeting was in progress, I was asked to explain the purpose of my presence by a staff member of a participant. In addition, on two other occasions I was denied access to several meetings because of the subject matter, NOAA's future budget. These discussions are handled with great sensitivity, as the dissemination of inaccurate information or premature deliberations could have a detrimental impact on the workings of the Agency and its ability to meet its federally mandated mission. In fact, federal regulations prohibit open discussion of budget matters prior to the release of the President's budget, which is the last step before the federal budget enters congressional review. In addition, I strongly suspect that research participants reacted (i.e., altered their comments, activities, or responses) to my presence on a number of other occasions albeit in a more subtle manner.

While I am certain that reactivity altered some of the activity I observed, other aspects of modern organizations and deliberative phenomena also circumscribed my collection of data. The inability to fully access organizational phenomenon has been recognized as a problem for some time. As organizational researchers and policy scholars have acknowledged, much deliberation takes place outside the 'board room' at closed meetings, as well as in informal or

impromptu settings, such as the country club, elevator or dinner table (Domhoff 1967; Hoon 2007). Not only do these more traditional instances create significant data collection problems for organizational researchers, but today's communication technologies including e-mail, text messaging, conference calls, and video conferencing provide other avenues for inaccessible deliberations to take place. During the time I collected data, I was aware of a number of communications on topics pertinent to my research that I was not able to observe, namely off-site meetings, luncheons, and a variety of virtual communications (i.e., e-mail, virtual meetings, video conferencing, conference calls). I also was aware of a number of impromptu conversations — in elevators, at dinner tables, and at social events — that I was unable to observe. In fact, one participant clearly stated that on many occasions important aspects of meeting briefs are discussed in less formal, smaller groups after the meeting, while traveling from the meeting, taking the elevator, etc. This participant acknowledged that the issues addressed in these informal conversations are often brought to the fore in on-going official deliberations (e.g., a future brief, follow-up work). The significance of these conversations has been addressed by other researchers (e.g., Hoon 2007). My relatively low status, as well as the guarded and/ or spontaneous nature of many of these communications prevented me from observing them.

While there were many informational exchanges that were unavailable to me, at times I was given the opportunity to observe spontaneous or semi-private communiqués (e.g., e-mail deliberations, comments by co-workers). In keeping with the ethical commitments I made to the University of Georgia and to the leadership of NOAA, I chose not to pursue these unless given explicit permission. In one particular instance, I was offered the chance to follow e-mail deliberations between two executives over a corporate issue. Naturally I was interested in gaining access to this relatively hidden exchange; however, when I mentioned that I would need

to inform a member of NOAA's leadership about my observation of this e-mail exchange, the offer was quickly rescinded. My need to disclose this potential observation to NOAA's leadership derived from my previous circumscription of the research and the related commitments I made to the Institutional Review Board at the University of Georgia and to the staff of the Deputy Under-Secretary of Commerce for Oceans and Atmosphere who, upon review of my research proposal, authorized me to conduct the research. In my proposal I identified three sources of data — interviews, meeting observations and meeting documents/communications — drawn from the four councils and program leaders within the ecosystem research program.

My circumscription of this research project was done prior to beginning my research and to the start of my fellowship. It was necessary to meet these institutional requirements in order to systematically conduct a formal research project, and to insure that I was able to pursue my research during the fellowship. However, the delineation of my research prematurely narrowed the breadth the research could take, and in hindsight was ultimately contrary to the intent of my research design (i.e., iterative, inductive).

My decision to focus on the four forums and the EDP gave my study a temporally practical and definitive focus, but also limited the phenomenon that I could investigate, as my access to the organization and my allocation of time were based on this circumscription of my research project. As inductive qualitative research involves the pursuit of an evolving research focus (Eisenhardt and Graebner 2007), this early circumscription prevented me from investigating other avenues of interest, such as the PPBES process, and the role of goal teams and staff offices more closely. The issue of path dependence on a particular empirical starting point is recognized as a problem with inductive approaches to research (Eisenhardt and Graebner

2007: 30). If I was conducting research in a more flexible context, I may have been able to institute more significant changes to the focus of my study if such changes were “likely to better ground the theory or provide new theoretical insight” (Eisenhardt 2002: 16).

While I was unable to alter the organizational focus of my research significantly, I was able to adjust my conceptual focus. My initial research was aimed at gaining an understanding of executive decision-making at NOAA. In addition, I sought to understand the role that science plays in the decisions of NOAA’s highest executive decision-makers. Initial observations revealed that executive decision-makers at the corporate level did not regularly use science in an explicitly instrumental manner, nor was it relevant to many of the issues under consideration. As a result, I focused on my primary and more general objective, gaining an understanding of executive decision-making at NOAA.

Social scientists have recognized the challenges of studying elites, whether indigenous leaders, rural aristocracies, elected officials, corporate leaders or governmental officials. Problems related to a lack of rapport, trust, access and the exigencies of leadership have been recognized when conducting research in this arena (Hertz and Imber 1995; Marshall 1984; Nader 1999 [1969]). In my case, access to decision-making phenomena became increasingly complicated as the focus of my study moved further from my daily activities and into the realm of NOAA’s highest executives.

Individual interactions with members of NOAA’s highest forums were often characterized by unfamiliarity and aloofness. For example, at the beginning and end of meetings in NOAA’s highest forums I was frequently treated as the ‘invisible man’, and not greeted nor engaged. There were exceptions to this, specifically with council members I had worked with as a fellow. These individuals greeted me on several occasions, during breaks and prior to the

beginning of meetings. In addition, on several occasions, individual executives did not respond to my e-mailed interview requests. I suspect that there were several reasons for the standoffishness and non-responsiveness I experienced upon interacting with members of NOAA's leadership. These include their relative unfamiliarity with me, a concern with the possibility of giving away sensitive information whose public release might jeopardize the fulfillment of NOAA's mission, as well as the possibility that my interview request may have been lost among the hundred or so e-mails these individuals receive each day.

Indeed, the relevant literature supports my own experiences with researcher-elite interactions, as my sentiments are echoed by several researchers. Crimson (2006: 26-7), notes, "In trying to gain access, researchers may face suspicion from elites regarding the motivations behind their research, with the concern that permitting access will somehow compromise their organization or status." In turn, Nader (2002 [1969]) notes, that elites "don't want to be studied" and that "they are busy people." In addition, social relationships at NOAA's headquarters, as with many other hierarchical organizations (e.g., Hertz and Imber 1995) that house elites, are characterized by an implicit code of conduct in which members of the leadership do not interact with employees below them (outside of immediate staff members) under normal circumstances. This latter characteristic of staff relations was illuminated by my own personal work experience and through the comments of co-workers. In fairness, I should note that all the interview participants treated me cordially and that most of them expressed a willingness to aid my research efforts after our interview (e.g., conducting a second interview, providing background material).

Credibility, Reproducibility and Transferability

In the social sciences, the criteria of credibility, reproducibility and transferability are used to assess the quality of research findings (Rudestam and Newton 2001; Creswell 1994). The local validity of results, the provision of information to allow others to closely duplicate the research, and the transfer of the research to interested parties are significant criteria in the assessment of the quality of a given research enterprise and dissemination of its findings. I describe my efforts to meet these criteria below. As will be evident, these criteria are related in their substance and in the efforts used to satisfy them.

The criterion of credibility is intended to insure the accuracy or truthfulness of a qualitative study. I used several strategies and techniques to insure the credibility of my findings including the triangulation of data sources, member checking, long-term participant observation, the engagement of highly knowledgeable participants from a variety of organizational positions and mentor examination. I collected a rich data set from three phenomenologically relevant but distinct sources, one-on-one tape-recorded interviews, direct meeting observations and related meeting documents. These three sources provided me with a robust set of data to pursue conceptual development and verification via grounded theory. Member checking involved a number of unspecified and informal conversations with NOAA employees and explicit and implicit discussions about their understanding of a research-relevant issue to clarify and ground the data. The value of participant observation and its benefit in heightening investigator cultural competence are great.

As noted previously, because I was a NOAA employee for almost two years, I was able to conduct an extensive amount of participant observation. I had regular consultations with two of my doctoral committee members. I also relied on expert consultations and mentorship to

bolster the quality and to ground truth of my research. I communicated with Dr. Theodore L. Gragson regularly throughout the course of the project, via e-mail, extended phone conversations and face-to-face meetings. I also benefited from close contact with one other committee member, Dr. Susan Abbott-Jamieson, a NOAA employee at the Silver Spring Metro Center office complex, who was on site throughout the entire course of my project. Both of these committee members provided substantive feedback on the hurdles I encountered, including the evolving focus of my data collection and conceptual analysis, unexpected changes or events and other research issues. In addition, while Dr. Susan Abbott-Jamieson is not a NOAA executive, she does have regular exposure to many of the activities I encountered during my research and thus was able to speak with me on substantive conceptual issues in a highly productive manner.

In meeting the criterion of reproducibility, I aim to insure that other researchers could investigate the same phenomenon, in the same manner and produce similar conclusions. I have documented key aspects of my research in this dissertation to insure the reproducibility of my findings including detailing my research process, describing informant selection, the context of data collection and the positions I held at NOAA while conducting research. I also provide my findings that can be used by an investigator attempting to replicate my research or conduct similar research.

Naturalistic, qualitative research is not inherently concerned with external validity, as it places a premium on understanding social phenomena in their particular contexts (Creswell 1994: 158-159; 168; Rudestam and Newton 2001: 98). However, I seek to insure the transferability of this research by disseminating its key characteristics to others (Creswell 1994; Rudestam and Newton 2001). The dissemination of my research entails detailed reporting of the context of my research, my data collection and analysis processes, the identification of all data

sources and my findings as offered in this dissertation. Relevant recipients of this information include the University of Georgia, research participants, NOAA's leadership, and interested professionals and scholars.

Ethics: Anonymity and Data Security

Social scientists are concerned with ethical issues that relate to the exploitation of research participants, and particularly with the exploitation of individuals who belong to marginalized or disenfranchised social groups. Some of these issues relate to the failure to obtain informed consent, the malevolent or careless use of data, the failure to honor participant anonymity, causing undue harm to participants and coercing participation. While I did not study an especially vulnerable community, the information I collected, if misused, may have a negative impact on the welfare of participants, the work of NOAA and potentially the fulfillment of its important mission. I gave primacy to the issues of participant anonymity, confidentiality and data security during my research because of the nature of the phenomenon under study — executive decision-making at a federal agency.

I took various steps to insure that I obtained informed consent, maintained interview anonymity and data security. I sought authorization to conduct my research from the leadership of the Agency and from the leaders of the involved forums. I used a documented informed consent process and insured participant control of the data throughout the research process. In presenting results, I maintained participant anonymity (unless identification was explicitly requested by me and consent was given), and I took steps to insure the security of the data I collected. In this section, I provide a brief description of how I executed these efforts.

As mentioned in the previous chapter on the context of my research, I presented my proposal to NOAA's leadership prior to the start of my fellowship for its approval. I was given

authorization to conduct my research by the (now former) Deputy Under-Secretary for Oceans and Atmosphere, retired Brigadier General John J. Kelly. I then contacted the leadership of the various forums to introduce my research and request permission to observe meetings and collect related documents for the explicit execution of this research. In turn, I was granted permission by the leaders of each forum to conduct my research.

When gaining the participation of interviewees, I used a standardized informed consent process with formalized documentation that required a signature acknowledging the participant's understanding of the project and his/ her willingness to participate (see Appendix D.B for informed consent document). Potential participants were formally introduced to the project via e-mail and subsequent verbal explanations. I procured each participant's consent to participate in my research project prior to initiating their interviews (see Appendix D.C for introductory e-mail). In administering the informed consent process, I emphasized to participants that they controlled their interview data throughout the research process. That is, at any time prior to the completion of my dissertation, a participant could request that I destroy and/ or discard their interview data and I would need to comply.

I also used the informed consent process to formally agree to handle interview data with anonymity, that is, I would not link individual identities to the interview data unless I obtained a participant's permission to allow me to acknowledge his /her identity for the purposes of more effectively presenting my findings. In order to insure anonymity I used a number of techniques to disconnect specific markers of participant identity from the data. I created codes for all interviewees that were used to label and manage interview data. Instead of using proper names, I referred to some participants using the double pronoun, she/ he, to protect their anonymity. In

addition, I altered or removed any identity markers by using ellipses, brackets, or false names from quotes, including projects and offices that could be easily linked to an individual.

While NOAA is not a military or intelligence agency, it is a federal agency and it conducts business important to American society. This meant that the data I collected had to be handled with care. I managed data on both my personal and my office computer. My personal computer served as my primary workhorse and data storage device, while I used my office computer sparingly to download and print documents. Both of these computers are password protected and accessible only to me, although authorized information technology personnel were able to access my office computer as well as my co-workers' computers. All data, electronic and print, were stored in a private, secure, off-site location, accessible only to me. In addition, all digital data was backed up on a regular basis on a protected hard drive.

My Position as a Researcher

In the spring of 2005, I was awarded a John A. Knauss Marine Policy Fellowship from NOAA's Sea Grant College Program. The program selects and places highly qualified graduate students and recent graduates (Doctoral and Master Degrees) in the executive or legislative branch of the federal government for a one-year paid fellowship. In February 2006, I was competitively placed in NOAA's Ecosystem Research Program (ERP) as program assistant and acting coordinator for the first six months of the fellowship. The ERP is one of NOAA's largest matrix program (with a budget greater than \$200M in 2006), as it overlaps three NOAA Line Offices (NMFS, NOS, OAR) in linking eight programs. The program is intended to be the Agency's focal point for ecosystems research.

In recent years, NOAA's leadership has sought to have the Agency fully employ ecosystem based management. This conceptual framework is a major paradigm in contemporary

natural resource management. NOAA has substantively embraced this management regime via the creation of the Ecosystem Goal Team, its emphasis on ecosystem research (i.e., ERP), and its current effort in creating regionally based ecosystem approaches that involve activities such as integrated ecosystem assessments. It is through these resources that the Agency aims to apply an ecosystem's approach to its natural resource management efforts. The ERP, through matrix-ed efforts with its programs and collaboration with other related extra- and intra-NOAA programs, seeks to take the lead in conducting ecosystem research, and thus in increasing our nation's understanding of and ability to steward our marine, coastal and great lakes resources via the creation of relevant tools, outreach efforts and information.

As an ERP staff member, I completed a multitude of PPBES tasks and fulfilled related roles. These included co-managing the creation of a program plan, performance reporting to NOAA and external bodies, coordination of mission support resources, program coordination activities with intra- and extra-program bodies, and many other activities. In addition, I interacted regularly with individuals throughout NOAA's six line offices, and with personnel in many of the Agency's staff offices and councils. This regular interaction allowed me to establish rapport and trust with a variety of NOAA personnel, including a number of NOAA's upper-level managers. In addition, my ERP responsibilities required me to gain an understanding of NOAA's organization and its corporate workings. These aspects of my position as a fellow were invaluable to the success of my research efforts, as they provided a perch from which to gain an ethnographic understanding of NOAA's headquarters and the working lives of the Agency's upper level employees.

My fellowship lasted from February 2006 to the mid-February 2007. Because the Ecosystem Research Program was short staffed, I was kept on until mid-April 2007 as a

volunteer assistant to aid the program's new staff member, and provide support if needed. I was not able to start my research until the end of August 2006, about 5 months after I had initially planned, because of the temporal demands of my fellowship (i.e., I regularly worked 50 or more hours a week).

I started a new position with NOAA in April 2007 with the federal government's Student Temporary Employment Program (STEP). As a STEP social scientist I worked for the National Marine Fisheries Service's Office of Science and Technology in the Economics and Social Analysis Division as an official federal employee. While in this position, my activities entailed project management – i.e., the provision of guidance to regional scientists, project coordination, secondary data collection, data review and triage, and a modicum of technical writing. Perhaps the most important aspect of this position with regard to my dissertation research is that it enabled me to continue conducting research as a NOAA employee. While this research position did not provide regular contact with NOAA's upper-level managers I was still an official member of the NOAA community and could come and go relatively freely while meeting my job duties. This position lasted for six and a-half months and ended in November 2007, as I sought to work on my dissertation full-time for an eight month period. I eventually returned to NOAA in July of 2008, as a contract social scientist for NOAA's Aquatic Invasive Species Program.

My official positions at NOAA allowed me to gain relative competence in the language of NOAA. NOAA, as a relatively large science and management bureaucracy, has developed its own language regarding its organizational divisions, tasks and cyclical activities. NOAA 'speak' is characterized by many acronyms and technical terminology — e.g., matrix, goal team, CIs, ERP, OAR, Integrated Ecosystem Assessments, AUVs and so forth (see Appendix DA for a list of some NOAA Terms and Acronyms). In order to be an effective NOAA employee,

particularly in the management realm at headquarters, an individual must have a strong command of this language.

During the last three months of my fellowship I conducted dissertation research intermittently during regular working hours (8 a.m.-5 p.m.). My fellowship was not intended to support the full-time pursuit of my dissertation research, however as a fellow I was allowed to use up to 20% of my work time fulfilling academic requirements and I used this time to work on my dissertation. I introduced my research project during the pre-fellowship screening and placement process (i.e., “placement week”) to prospective supervisors. I eventually received explicit approval of my project from my immediate supervisor, Dr. Leon Cammen, who is the director of the National Sea Grant College Program and the program manager of the Ecosystem Research Program (NOAA’s second-largest matrix program). During the three-month period between “placement week” and the start of the fellowship, I contacted a member of the Undersecretary’s Staff, Mr. Timothy McClung (the Executive Director to the NOAA Chief of Staff), to introduce my project and gain organizational approval. It is through Mr. McClung that I relayed the purpose and practicalities of my research, and received NOAA’s acceptance of my research from the Office of the Deputy Undersecretary of Oceans and Atmosphere. Mr. McClung and his staff at NOAA’s Decision Coordination Office provided valuable assistance throughout the research process — explicitly, vouching for the nature of my research to potential candidates via email, and by aiding my access to NEP and NEC meetings and related documents. Were NOAA not willing to allow me to conduct my research, this project would not have been possible.

The Location of My Research

NOAA's headquarters can be divided in two: The Department of Commerce (DOC), located in Washington, DC's Federal Triangle, is home to NOAA's official headquarters. The DOC houses the offices of NOAA's highest officials (Undersecretary of Commerce for Oceans and Atmosphere, and the various other secretaries), their immediate staff and a small number of staff office leaders. The Agency's Maryland facility, referred to as Silver Spring Metro Center (SSMC), houses the heads of NOAA's line offices and the bulk of the Agency's headquarters staff. This facility encompasses four office buildings — SSMC1, SSMC2, SSMC3 and SSMC4 — with approximately 2000 to 3000 employees. However, the Agency also has approximately 10,000 employees based throughout the United States. During my fellowship, my office was on the eleventh floor of SSMC3 in the National Sea Grant College Program Office. Since the ERP had no formal office and the program's manager (i.e., my supervisor) was the director of the National Sea Grant Office, it was useful for me to be physically located near him. My office as a social scientist was in the Office of Science and Technology on the twelfth floor of SSMC3.

Most of my dissertation research was conducted at NOAA's headquarters facilities. I conducted interviews at participants' offices, and in a few instances, nearby meeting rooms. I conducted one interview outside the Washington, DC metropolitan area. All of the meeting rooms were conference rooms and had elongated tables with seats for principal members at the table, as well as chairs along the exterior of the room for secondary members (e.g., advisors, supporting members) and transient participants.

The point of this chapter is to provide a clear and transparent record of the methods, techniques and processes I used to conduct this research. By providing my methodological approach, a description of my position as a researcher and the sources of my data I aim to allow

others to better understand my research, and enable the replication of my approach and this project if desired.

CHAPTER 6

FINDINGS — GROUNDED THEORY

This chapter presents the findings from my grounded theory research. Because my analysis started shortly after initial data collection, there is no clear division between my ‘raw’ data or descriptive findings and the results of my analysis. This chapter provides a relatively unfiltered description of participants’ views, as I offer an overview of the prominent concepts and terms identified in my grounded theory research. The chapter starts with a brief explanation of my conceptual hierarchy, criteria for terminological significance and a description of my three overarching categories. The rest of this chapter is divided into three sections, one for each of my three overarching categories.

My Conceptual Framework and Criteria for Significance

In my analysis, I identified three levels of abstraction – terms, concepts and categories – embedded in a hierarchical relationship. Terms represent the smallest analytical unit. They were identified as significant based on their substantive meaning and repeated use in the meetings and interviews. For example, while the terms ‘the’ and ‘are’ were identified frequently in observations, they were used to denote their specific and common meaning. Conversely, other frequently identified terms such as ‘story’, ‘capabilities’ and ‘drivers’, had context-specific meanings that were relevant to executive decision-making at NOAA. Concepts were derived from terms. Concepts represent relatively specific constructs based on terminological patterns identified in the talk of participants. Compared to a term, a concept is generally richer in meaning and frequently exhibits variation in meaning depending on context. A concept may be

denoted by one term, for example ‘strategic’, or by several terms, as is ‘corporate’. Terms that denote “corporate” include, ‘One NOAA’ and ‘a NOAA Approach’, as well as ‘corporate’. Categories are higher order constructs built from concepts and terms. More precisely, they represent answers to what is the quintessential qualitative research question, ‘What is happening here?’ I italicize the *terms*, *categories* and *concepts* I identify in my research and present in my findings to facilitate their recognition by readers.

I use quotes as my primary method of display. I identify and describe each concept, and then offer a quote(s) that encapsulates the associated terms, noting its source as well as the situational and/ or topical context. I also offer an indicator of the relative frequency with which I identify the concepts in my data by using a three-tiered referencing system. If I observed a concept six or more times in the data, I say that it was identified with ‘high frequency’. If I observed a concept four to five times I indicate that it was observed with ‘moderate frequency’. Finally, if I saw a concept less than four times, I called it ‘low frequency’. For the sake of brevity, I do not present all of the terms and concepts I identified. I do provide additional evidence in support of the concepts in Appendix A.A-C.C.

In reflecting on what happened in the meetings and interviews, I was able to identify three patterns of talk that represent or relate to significant trends in the decision-making process. I present these patterns with three categories, *concerns and challenges*, *comments about members and their understandings of process*, and *decision-making*. When participants talked about substantive NOAA issues (e.g., regional ecosystem management, observing systems, workforce policies) they repeatedly recognized a particular set of concepts and terms as needing to be addressed. As a result, I categorized these concepts as the *concerns and challenges* of executive decision-makers (hereafter referred to as *concerns and challenges*).

Another pattern of talk centered on the attributes or characteristics of council members. *Comments about members and their understandings of process* were frequently made by members. From this category we can gain insight into the social mechanisms behind decision-making.

The last category, *decision-making*, represents what participants talked about when identifying the ‘who’, ‘where’, and ‘what’ of decision-making in NOAA’s EDP. While I identify specific NOAA issues, e.g., Integrated Ocean Observing System, NOAA’s Program Plan, NOAA’s 200th Anniversary Celebration, in my findings, these issues are not the focus of my grounded theory research. Rather, the focus of my research is on the repeated concepts and terms participants used in their discussions of these issues. Below, is a summary of the significant concepts and terms housed within my three categories and an interpretive statement identifying decision-making in NOAA’s EDP as a executive-driven decision-making process.

Concerns and Challenges

The category *concerns* and *challenges* is the largest of the three categories, as it houses a majority of the concepts I identified. Because of the large number of terms in this category, I address only a subset of the most prominently (i.e., frequency and circumstances of use) used terms in this category that are listed in Figure 6.1.

Table 6.1: What Participants Talked About: *Concerns and Challenges*

<i>budget/resources</i>	<i>drivers</i>	<i>societal benefits</i>
<i>constituents/stakeholders</i>	<i>mission</i>	<i>Story</i>
<i>capabilities</i>	<i>operational</i>	<i>Strategic</i>
<i>corporate</i>	<i>political</i>	

During meetings, participants regularly engaged the concepts *corporate*, *strategic* and *operational*. Participants often recognized the focus of a forum's discussion as addressing or not addressing one of these concepts. Below, I demonstrate the use of these concepts and describe them.

The concept of *corporate* occurred with high frequency. One member of the NOAA Executive Council (NEC) responded to my interview question about how he/ she would "characterize the types of decisions" the council makes, by saying: "*Corporate* is the first thing. I don't make decisions in the NEC — I try not to... that are unique to my little office here." In this quote the member indicates that the role of NEC members is to consider the interests of all parts of the organization when addressing issues that come before this council. Another member of the NEC displayed a slightly different use of *corporate*. He/ she asserted that issues that go to the NEC and NEP generally call for a "*NOAA approach*." I asked this member to expand on what kind of issue might call for a "*NOAA approach*." The member responded with the following commentary:

It might involve just one LO. But, if it's a big NOAA issue where *NOAA corporate* is going to be judged, I think the Admiral is looking for advice from a wider range of people. A good example is a lot of the satellite issues. NESDIS really runs the satellite program, and most of their requirements come from the Weather Service. But as a matter of fact, you know, its *corporate NOAA* whose reputation is on the line.... [with satellite issues]. And I think the Admiral is looking then for a little bit broader buy-in and a broader suite of advice to come into him.

This quote reflects another aspect of *corporate*. An issue may not directly relate to all of NOAA's line offices, but if it is of significant public, political, and/ or financial stature, it is often considered a *corporate* issue, as its outcome may have an impact on the entire Agency. Here, the use of *corporate* represents participants' emphasis on accounting for, or representing all of NOAA's major organizational divisions in the work of these forums. Participants

identified the concept of *corporate* with several terms including *One-NOAA*, a *NOAA Approach*, and *corporate*.

Strategic also was commonly observed. During one interview, a NEC member offered a detailed description when asked what *strategic* meant from a “NOAA perspective.” The member stated:

“Persevering over time; broad enough to provide guidance for virtually everything the organization does, *corporate*... broad mission application, translatable, scalable down to the project level. So, that you can go from the big picture down to what you’re going to do tomorrow if you got an additional dollar in your program. And, founded on some fundamental principles of the organization - mission, priorities.”

This quote is indicative of key elements that participants referred to when they used the concept of *strategic*, namely broad guidance related to NOAA’s mission that sets the future course for the entire Agency.

The concept of *operational*, or *operating*, was identified with moderate frequency. I observed an example of the use of *operational* in an interview I conducted with a NEC member:

How do you go about your business in, you know, within the next three months or within the next year, sort of -- kind of what are the targets that you have to make things happen to operate. And we are an *operational* or scientific organization; this is not a research-oriented organization. We do research. We do research to support our *operations*, means we have a business; we have products and services; we provide things at the end of it. So, there’s an *operational* necessity to be able to do that, to execute, organize people, get them together, get the resources in place.

Participants used *operational* and *operating* to refer to the daily activities of the personnel and machinery that fulfill the service delivery aspects of NOAA’s mission (i.e., information dissemination, stewardship and mission support roles) and the characteristics, capital requirements, conventions and results of these activities. For instance, a prominent use of *operating* lies in the official charter of the NEP, where it identifies issues and policies as *operating* in nature.

The concept of *story* was observed with high frequency. A *story* is conceptually related to almost all of the *concerns and challenges* raised by participants. This concept was denoted by several terms, including *a story*, *our story*, and a *good story*. In one interview, I asked a transient participant in the Research Council (RC) to explain what was happening in a particular meeting discussion. The participant responded by employing the concept of *a story* as follows, “It is an example of NOAA’s inability to tell its *story*, to explain why we could use UASs [(Unmanned Aerial Surveillance Systems)]. The UASs actually got a pretty well-laid out plan, more well-laid out than a lot of things at NOAA but still we are struggling to sell that to the Department [of Commerce]...to...[the NOAA Budget Office]... . So, even internally....” In another interview I asked a member if he/ she had heard of meeting participants talking about telling a *good story*.

The member responded:

Sure. I think it means that we’re not packaging the message about the importance of what we do in a frame that is readily usable by the audience. We end up telling the *story* the way it makes sense to us rather than thinking about, you know, ‘Why am I telling the story?’ ‘What’s my objective?’ ‘Who’s the audience?’ You know, ‘what is it that they want to hear?’

The quotes above reveal key elements of a *story*, including targeting the message to a particular audience and relating the objective(s) to NOAA’s Mission. A *story* is a rhetorical account aimed at achieving specified goals by explaining the request or objective in language that is relevant to goals of the Agency and sensible to the intended audience.

Other concepts, such as *societal benefits*, *mission* and *resources*, are often embedded in *good stories*. When I inquired about the rationale behind another council member’s repeated use of the term *societal benefit*, the interviewee responded with the comment below. While he/ she does not actually use the term *story*, the concept is evident in the quote:

...[T]here’s a very pragmatic significance to that. If we cannot express what we do in terms of *societal benefit*, we will not succeed in getting the resources we need. If we

talked about improving a non-hydrostatic model because it's really a fun thing to do, nobody will give us money for it. We have to tell our – [We]...have to convince the NOAA leadership, then we have to convince the Department of Commerce, then the Office of Management and Budget, and then Congress why improving a non-hydrostatic model may mean an enhanced capability to forecast a particular environmental process, to help Commerce and Transportation, to help ecosystem based management, to help forecast the weather - all of the mission issues that's the *societal benefit*. So there's an altruistic element to it; it's the right thing to do for society, and the tax payers are paying us to do things for society. And then there's a very, ah, parochial interest in it -- basis for it. And that is to get more resources.

Societal benefits was used frequently to indicate the specific benefits that NOAA is supposed to provide to the American public. *Societal benefits* is directly related to the concept of a *mission*, or NOAA's *mission*, that I discussed in Chapter 2. The concept of *mission* was used by members who, in vying for the approval of a particular project or acquisition, asserted that the project or acquisition aided NOAA in fulfilling its mission. The concept of *resources* (or *budget constraint*) was used with moderate frequency, and referred to the employees, funds and assets that NOAA needed to successfully execute its day-to-day activities.

The concept of *politics*, or political, was identified frequently. The phrase “*political environment*” was used by a NEP member in a panel meeting to garner input and endorsement of a major annual business activity — a review of the draft fiscal year 2009-2013 Program, prior to presenting the plan to the NEC. This member asserted that the organizational placement of a significant programmatic initiative within NOAA depended on the “*political environment*.” In a subsequent interview, I asked the member what he/ she meant when using the term. The member responded,

One of the great challenges at NOAA.... is there are a multiplicity of constituent groups that, um, sometimes are in agreement and sometimes are not. And, in fact,.....not only [is] their disagreement manifested in the stakeholder environment, or in the constituent environment, but also manifested in the Congressional environment.

The member went on to identify a number of groups with “interests” in NOAA’s activities. The use of *political* in the above quote refers to “interest groups” or “constituents” outside the organization.

Another interviewee used the term *politics* in a slightly different manner from the NEP. This participant, a member of the RC, made a distinction between the NOAA-wide councils and the NEC and NEP that centered on differences in the intra-group “dynamics” of these forums. The participant stated, “You get a lot more of micro-*politics* when you get into the real decision-making environment of the NEC and the NEP...I mean micro-*politics*, inside-the-organization *politics*...” When I probed the participant to elaborate on the meaning of “micro-*politics*”, he/she responded with, “[r]epresenting one’s jurisdiction. That’s fundamentally what politics is about.” In this quote, *politics* is used to refer to the tactics and strategies employed by individuals or groups to meet the goals of their program, office, or council. *Politics* are sometimes employed in competitive scenarios when components of the organization are vying for their interests or when NOAA is vying for its interests in the federal arena.

The last significant concept addressed in this section on *concerns and challenges* is *drivers*. While the concept was identified with moderate frequency, it is important because it was related to a number of concepts in the *concerns and challenges* category. One example of the use of *drivers* was identified in a RC meeting document titled, “Major Comments on Version 0.5 of the 5-Year Research Plan.” The document is a compilation of reviewer comments on a draft of NOAA’s five-year research plan. This plan is a product of the RC and relates directly to its mission of providing strategic direction for NOAA’s research enterprise. In one section of the compilation, “Major Editorial Suggestions”, the following statement regarding suggested “priority research activities” for major NOAA programs is noted: “It may be useful to cite the

legislative as well as social drivers for activities.” This quote demonstrates the meaning of *drivers* within NOAA’s organizational context, that is, *drivers* are the impetuses behind the Agency’s programmatic endeavors (e.g., coastal ecosystems research, fisheries management).

Another example of the use of *drivers* can be found in a NOC meeting document, “Input for the NOC Annual Guidance Memorandum [(AGM)] Priorities Discussion.” The document and its discussion had the following objective, to “Discuss external *drivers* potentially impacting NOAA’s ocean mission and demand for products and services for fiscal year 2010-2014 as a basis to identify NOC priorities for the AGM.” The AGM is a corporate guidance document intended to provide direction for goal teams, matrix programs and staff offices involved with the planning and programming phases of NOAA’s Planning, Programming, Budgeting and Execution System (PPBES). The document lists a series of specific *drivers* (e.g., legislative acts, natural resource industry trends and heightened societal interests in decision support tools related to climate change) under general categories. These categories of *drivers* include “Legislative Drivers”, “Offshore Energy Development”, “Ocean Environmental Literacy”, “Water Cycle Information Working Group Priority Development and Modifications”, “Extreme Event Resilience”, “International Agreements”, “Regional Initiatives”, “Intergovernmental Panel on Climate Change (IPCC)”, “Coastal States Organization (CSO) Annual Survey”, “Office of Management Budget”, “Joint Ocean Commission Initiative (JOCI)”, and “Marine Transportation Systems.” *Drivers* can be internal or external to the organization. Internal *drivers* include the current priorities of NOAA’s leadership, the Agency’s mission, the missions of individual programs and the current configuration of NOAA assets and capabilities. Because the concept of *drivers* represents the explicit *impetuses* behind strategic and programmatic decision-making,

their identification provides insight into the intra- and extra-organizational issues, trends, mandates, entities and events that are important to decision-makers.

In summation, the *concerns and challenges* category represents some of the most repeated concepts in the data. *Strategic, operational* and *corporate* are used by participants when referring to characteristics or attributes of substantive issues. A *story* is used to identify the explicit and formal rationale participants offer when supporting a particular advance — e.g., recommendation, decision. This concept is significant because it is linked to a number of other concepts and by its very nature reveals what is important to council members. Likewise, *drivers* is also significant because it indicates mandates, reports, events, and trends that are important to forum members.

Comments about Members and Their Understanding of Process

In this section, I present the category *comments about members and their understanding of process*. I describe several concepts participants used when they talked about themselves and their activities, with an explanation of the concept and exemplary quotes. The concepts are *hats* or *multi-hatting*; and *process* (Figure 5.2).

Table 6.2: What Participants Talked About: *Comments about Members and Their Understanding of Process*

<i>hats / multi-hatting</i>	<i>process</i>
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The concept of *hat(s)* was identified frequently, as participants mentioned what *hat(s)* they or a colleague were wearing, or that someone was *multi-hatting*. This concept refers to council members fulfilling several distinct roles in the Agency. A hypothetical example would be an individual who serves as the lead of a goal team, is a line office representative to the NOC, and also an Agency representative to two external bodies. In fulfilling these distinct roles, the

individual would be expected to bring to that particular table only the perspective corresponding to their role at that time, e.g., the perspective of a goal team if they are representing a goal team, a line office perspective if they are representing a line office, or a corporate perspective if they are representing the entire Agency. In an interview with a member of the Research Council, I inquired about the meaning of his/ her use of *hats* during a discussion on the AGM. The participant replied:

Yes. I think, particularly, in the council structure, many of — many of the members of the council wear different hats. . . . So in addition to coming to a council, it [i.e., AGM as an issue to be addressed] will go to each of the line offices, and the members of the council are senior members of each of their line offices as well. Goal teams will also have a chance to comment. And so, again, the goal team members who are on the council will have other opportunities wearing their - those different hats, and bringing those different perspectives.

The RC member used the term *hats* to explain that many council members hold two or more distinct positions within NOAA and thus would have several opportunities to refine the AGM from the various perspectives they represent.

By comparison, a member of the NOC offered a more nuanced interpretation of *multi-hatting*. I asked him/ her a question regarding the use of science in the EDP. The member responded:

That is always interesting because major line offices have different perspectives on their particular problem and what constitutes the assigned spaces for [science]. So sometimes you are in that role, and sometimes you are in the role of these other hats where you are trying to take the broad crosscut. It is somewhat difficult when you are wearing these double *hats* not to let your biases get across whatever decision-making you are in because, obviously, if you are wearing your line office *hat*, you are trying to look out for that interest. If you are wearing the one NOAA *hat*, you want to make sure that you are perceived as being non-biased.

The above quote reveals a challenge or obligation that *multi-hatters* must meet. As noted, *multi-hatters* are obligated to represent each of the entities they are affiliated with independently. For example, the hypothetical goal lead in the proceeding paragraph must represent the ‘goal

interest' when acting as the goal lead and not his/her line office affiliation. The quotes exemplify patterns in the way participants used *hats* (or *double hats*) to convey that they and many of their peers work in the EDP from two or more distinct organizational positions with corresponding perspectives.

The data indicate that there are two types of *multi-hatters*. One type of *multi-hatter* is generally more senior in tenure and position, more knowledgeable about the Agency and the federal environment, and more prominent. These senior *multi-hatters* can access a greater diversity of information as a result of their experience and social networks than the junior *multi-hatters* can. This is because senior *multi-hatters* have worked in the science and policy arena as a NOAA employee or an employee for another agency, a scientific association, or a private entity for a long time. Hence, the senior *multi-hatter* understands the interests of a mixture of internal and external entities with whom they have interacted over the years. In addition, senior *multi-hatters* are generally highly respected in their fields of expertise, which is what enabled them to become senior *multi-hatters*. While not as prominent in stature, nor as aware of the on-going processes and issues as the senior *multi-hatter*, the junior *multi-hatter* still controls considerable knowledge about current issues and organizational processes.

The leaders of the lower councils present a unique type of *multi-hatter*. They are both senior *multi-hatters* and leaders of their respective councils. As a result, they wield considerable power within the council and the Agency.

The last concept making up the category *comments about members and their understanding of process*, is *process*. Variants of this concept were signaled by the following terms, *many-bites-of-the-apple* and *churn*. The concept of *process* was identified less frequently; however, I do think it is conceptually significant. During one of my earlier interviews, I asked a

particular NOC member why he/ she was highly knowledgeable about executive decision-making at NOAA, while other members were not as knowledgeable. The member responded:

I came from a defense background, and the two guys leading this organization come from the defense background. I think I have a little bit better understanding of where they come from. Further, within the Department of Defense, you change jobs every two to three years, and the very first thing you do is look at *process* and what that *process* is in the new job.

This quote displays a repeated element in the talk of participants, a heightened concern for and understanding of agency and governmental business *processes*. In an interview with a NEC member, the participant used the term *process* in a similar manner when discussing the need to understand one's audience when communicating the societal utility of NOAA's research. The member asserted that:

Knowing the *process*, knowing the audience, knowing the objective of a particular meeting. What's the objective of an ERP meeting? What's the objective of the NEP meeting? What's the objective of a discussion? The way I explain it is I don't like to go into any meeting, certainly, if I'm chairing it, without an expected outcome for each agenda item. And so when you start saying, 'What's the expected outcome of this upcoming meeting on the Hill, at a NEP meeting...' that expected outcome is going to be different because of that -- that audience and because of the mission of that particular organization.

The above quotes show participants' use of *process* and the importance some members placed on understanding the nuances of the Agency's and the federal government's business processes and their associated audiences as this knowledge is essential to telling *good stories*. The category *comments about members and their understanding of process* represents concepts that relate to characteristics of council members, their challenges and the attributes they use in performing their work. The concept of *hats* was used by participants when they recognized that many of their peers in NOAA's EDP held two or more positions in leadership or management within the Agency. A heightened knowledge of *process* is something that most *multi-hatters* have, albeit to varying degrees. However, the senior *multi-hatters* wield knowledge of *process*,

concerns and challenges, along with expertise and, as a result have considerable influence. This enables them to tell *good stories* comprised of appropriate *concerns and challenges*.

Decision-Making

The final category, *decision-making*, including what participants talked about when describing executive decision-making at NOAA. Concepts (Table 6.3) in this category include *advisers*, *decision-makers* and *issues*, and are enacted through a number of terms. Below, I describe these concepts and associated terms, then provide examples to elucidate them.

Advisers is comprised of two sets of terms including 1) *councils* and 2) *advisory*, *recommendations* and *clarify*. The first term refers directly to the lower *councils*, especially the *strategic councils* including the NOC and RC. The latter set of terms, refers to the *advisory* role played by the lower councils, as these councils *clarify issues* for, and proffer *recommendations* to the NEC and NEP. The *advisory* terms are also used to describe the roles of subordinate council members, particularly those on the *NEC* and *NEP*, as subordinate members are expected to *clarify* issues and provide *recommendations* for the leaders of the councils.

The concept of *decision-makers* is enacted via two groups of terms, 1) the *NEC-NEP* and 2) *leaders* and *decision-makers*. *NEC-NEP* refers directly to the *NEC* and the *NEP*. The terms *leaders* and *decision-makers* refer to the roles played by these councils, especially the roles played by council *leaders*. In fact, when referring to *decision-makers* or *leaders*, participants regularly identified the former Undersecretary of Commerce for Oceans and Atmosphere, retired Vice Admiral Conrad Lautenbacher (e.g., “the Admiral”, “the Administrator”), and the former Deputy Undersecretary of Commerce for Oceans and Atmosphere, retired Brigadier General Jack Kelly (e.g., “Jack”, “General Kelly”).

The last concept, *issues*, is highlighted in my case study chapter and refers to the substantive *issues* addressed by the *leaders* and *advisers*. There are two types of *issues*, and thus two terms associated with these issues, *PPBES* and *non-PPBES*. Issues arising from NOAA’s Planning, Programming, Budgeting, and Execution System (*PPBES*) were regularly and explicitly identified in the data. Explicit mention of *non-PPBES* issues, or those outside of *PPBES*, were observed less frequently in the data, but were recognized by several council members.

Table 6.3: What Participants Talked About: *Decision-making*

<i>Decision-makers</i>	<i>Issues</i>
<ul style="list-style-type: none"> • <i>NEC-NEP</i> • <i>Leaders and Decision-makers</i> 	<ul style="list-style-type: none"> • <i>PPBES</i> • <i>Non-PPBES</i>
	<p><i>Advisers</i></p> <ul style="list-style-type: none"> • <i>Council</i> • <i>Recommendations, Advisory, and Clarify</i>

One NOC member used all of the concepts in this category in his/ her description of NOAA’s EDP. During an interview, this participant used the following terms (identified with low to high frequency), *PPBES*, *NEP-NEC*, and *advisory/advice*. He/ she stated the following, “I see the Executive Decision Process as really having two tracks; one dealing with the *PPBES*, the other one dealing with other policy issues. And that the *councils* *advise* the goal teams in the one score [i.e., *PPBES*] and then the councils, you know, *advise* upward to the *NEP-NEC* on the policy questions.” This quote displays how participants referred to the lower NOAA-wide councils (particularly the NOC and RC) as serving *advisory* roles to the *NEC* and *NEP*. The quote also shows how participants perceived NOAA’s EDP as a vehicle to deal with two types of *issues*, *PPBES issues* and those outside of *PPBES*.

Another interview participant, a NEC member, used many of the same concepts used by the NOC member, including, *NEP-NEC*, *recommendation* (i.e., *advise*), as well as the *Admiral*.

In talking specifically about the roles fulfilled by the *NEC* and *NEP*, the participant responded:

Well, what the *NEC* really tends to do is *advise* the *Admiral*. There are some things that the *Admiral* is really the decision person on, you know, like exactly what budget is NOAA going to submit. At the end of the day, you know the *NEC* can do and say a lot of stuff, but it's really the *Admiral* who makes that decision. So, all of these *councils* are written with the chairs having 51 percent of the vote. Um so, we say things like striving for consensus, and there can be minority opinions. I think there's a lot of things that's under the *NEP*'s purview, that NOAA depends on the *NEP* to do; get that stuff done. And there's other stuff that by the time it gets to the *NEC*, we would've expected the *NEP* to have dealt with it and have it pretty cleaned up, a clean *recommendation*.

In this quote the member asserts that not only do the lower councils serve in an advisory capacity to the *NEC* and *NEP*, but also to some extent the members of highest councils serve to *advise* the *leaders* who are the *decision-makers* on major *PPBES* issues. The preceding quotes exemplify how participants employed the concepts by using associated terms (i.e., *PPBES*, *councils*, *NEC-NEP*, *leaders*, *decision-makers*, *recommendation*, *advise*) when talking about *decision-making*, and the workings of NOAA's EDP.

The *decision-making* category indicates that NOAA's *leaders* — particularly the Undersecretary of Commerce for Oceans and Atmosphere and the Deputy Undersecretary of Commerce for Oceans and Atmosphere — are key *decision-makers* on major *PPBES* milestones and other *corporate* policy issues. The data also indicate that the lower councils, including the NOC and RC, fulfill *advisory* roles by *clarifying* issues and offering *recommendations* to the *NEC* and the *NEP*.

Summation and Interpretation of the Data

In the category *concerns and challenges*, I identify many of the concepts that are routinely important to the four councils — e.g., *strategic*, and *corporate*. In the category

comments about members and their understandings of process, I gain insight into the significance of the *multi-hatters*, particularly the senior *multi-hatters* who wield their knowledge of *process* and expertise to tell *good stories* and influence the workings of *councils*. The final category, *decision-making*, indicates that the *NEC* and *NEP* are the principle decision-making bodies for *PPBES* decisions. Within these *councils*, the *leaders* are the *decision-makers*. It would seem that the power of the senior *multi-hatters* would be neutralized in the highest councils, the *NEC* and *NEP*, as most members are senior *multi-hatters*. The subordinate council members are apt to be less powerful because they are treated as advisory, with less status and *story-telling* ability.

In closing this chapter, I propose that NOAA's executives are involved in a process of executive-driven decision-making in the EDP. The term leadership in this instance is used broadly, as I refer not only to the official council *leaders* but also to the senior *multi-hatters*. At the level of the lower councils, the council *leaders* and the senior *multi-hatters* play significant roles in the decision-making process. These individuals use their knowledge of *process*, and their status derived from their expertise and official position (particularly in the case of designated *leaders*) to direct deliberations and ultimately make decisions. Although there is open deliberation at the *NEC* and *NEP*, the role of *decision-maker* ultimately rests with the leaders of these councils, the *Admiral* and the *Undersecretary*. In my final chapter – 9, I explain how the powers of NOAA's executives – i.e., their knowledge of Agency and federal processes – are cultural knowledge and that this is an essential ingredient in driving decision-making.

CHAPTER 7

FINDINGS — CASE STUDY

The findings in this chapter provide insight into the processes and structures that characterized each council, and the relations between councils. I executed my analysis in four stages as follows: 1) an identification of analytical categories, 2) a meeting analysis, 3) a council analysis, and 4) a system analysis. At the end of this chapter, I present a data-based description of the Executive Decision Process (EDP). While I presented the official definitions of the process in the chapter covering the context of my research, my description provides a view of the workings of the EDP based on the observations I made in this research.

Stage 1: Identification of Analytical Categories

Case study researchers propose that study data may be systematically analyzed via categories inherent to the phenomenon of interest or determined by the investigator (Eisenhardt in Miles and Huberman 2002: 18). In reviewing meeting documents, several categories were routinely associated with each of the four councils under study. In essence, these categories represent the standard features that characterize the structure of every meeting for all four councils, and thus provide the basis for a uniform analysis across councils. The categories identified are *issues* or *agenda items* (hereafter referred to as *issues*), *actions*, *decisions*, and *impetuses for activity* (here after referred to as *impetuses* or *impetus*). *Issues* are the explicit substance of meetings and were determined via discussions, briefings and updates. *Decisions* are officially sanctioned choices — by council leaders — to select one alternative over another. *Decisions* were identified in the meeting minutes of the councils as well as in the official

memoranda issued by the NEP and NEC. There was one exception to the councils’ use of these analytical categories: The category, *decisions*, was not explicitly used by the RC in the five meetings analyzed for the case study; however, additional data indicate that *decisions* were discussed by the RC at other meetings.

Actions are officially sanctioned calls to action made by council leaders to specified council members, their subordinates or related entities. *Actions* are, in effect, the execution of ‘next steps’ (e.g., coordination and/or collaboration with offices or councils, searches for information, the provision of feedback). *Decisions* and *actions* are, in a very real sense, the generic outputs of councils, and thus are indicators of a council’s activities. In addition, as presented in the grounded theory findings and supported in the following case study data, *decisions* for the NOAA Ocean Council (NOC) and Research Council (RC) are substantively different from *decisions* for the NOAA Executive Panel (NEP) and NOAA Executive Council (NEC). The NOC and RC typically make *decisions* to recommend a particular policy or stance on a *strategic issue* in line with their *advisory roles*; while the NEP and NEC make *decisions* that set a policy or a ‘way forward’ for the Agency that is in line with their roles as the *leaders* of NOAA. The term *impetuses for activity* was not explicitly used in the observed meeting activities and related meeting documents; however, I identified its variable, but implicit use in many of the 20 meetings I analyzed. *Impetuses* refers to the impetus behind a council’s activities on a particular *issue*, or why an issue is being addressed – e.g., to meet NOAA mission requirements, at the request of the Deputy Under Secretary of Commerce, or to fulfill the official role of a council. In briefing documents, *impetus* is frequently recognized as the purpose or rationale behind an *issue*.

Table 7.1: Four Analytical Categories

<i>Issues</i> – the explicit substance of meetings; offered in discussions, briefings, and updates
<i>Decisions</i> – official choices by councils to select an alternative or ‘next steps’
<i>Actions</i> – official calls to action made by the council to specified members, subordinates, etc.

For my analysis I extracted data from 20 meetings, five for each council, from the documentary evidence (see Appendix I-L for a complete list) and organized them by the identified categories. The frequency of instances cited in each category varied within councils (i.e., meeting groups) and between councils. In addition, the relationship between categories was highly variable in terms of frequency and association. For example, at one NOC meeting the incidences of the four categories were as follows, 12 *issues*, 9 *actions*, 1 *decision*, and 5 *impetuses*. Although there were 12 *issues* and 9 *actions* for this meeting, the association of these was highly variable, in that 2 *issues* were associated with 3 *actions* each, while the remaining 3 *actions* were associated with one *issue*. To further demonstrate the variation in the association of the categories, of the 12 *issues* addressed in the above-mentioned NOC meeting, only one of these was associated with a *decision*. This association is to some extent related to the age or maturation of the *issue* and its nature. For example, if a council is addressing a new *issue*, that is relatively unknown to the council members, members may need information or may need to coordinate with interested parties; hence, an *action* item may be needed. On the other hand, the very nature of an *issue*, (e.g., need for corporate input on NOAA's research portfolio) may itself require an *action* to foster the participation of relevant parties. The widespread use of the four categories is most likely a product of efficiency and regularity. For example, similar categories have been used in some form by councils and other deliberative bodies for decades, and their inherently discrete nature fosters a more efficient meeting dialogue as opposed to free conversation (Schwartzman 1989: 64-68).

Stage 2: Meeting Analysis

The meeting analysis reveals how each of the structural features, as represented by the analytical categories, is actualized by the individual councils. In turn, the resultant findings for individual councils are used as the basis of the council analysis. In the following paragraphs, I describe the typical characteristics of each council’s meetings along categorical lines. In so doing, I address the nature, characteristics and frequency of the items that comprise each category — proceeding from *issues*, to *actions*, to *decisions* to *impetuses*.

NOAA Ocean Council (NOC)

Table 7.2: NOAA Ocean Council Meetings by Analytical Categories

NOC	Issues	Actions	Decisions	Impetuses
Meeting 1	10	19	3	3
Meeting 2	12	8	1	4
Meeting 3	12	9	1	5
Meeting 4	11	9	2	7
Meeting 5	10	9	0	2
Total	55	54	7	21

The NOC took up *issues* related to ocean policy and emphasized a *corporate* outlook and a *strategic* perspective. These *issues* related to the annual business activities of the Agency (e.g., PPBES), the annual business activities of the federal government (particularly congressional activities), inter- and intra-agency strategy or agenda-setting efforts, as well as *corporate* NOAA outreach and educational efforts and current trends in ocean policy. *Issues* were characterized according to the length of time that the NOC had dealt with them. New items were recognized as “issues” and older items were categorized as “ongoing NOC business”, with the latter comprising most of the agenda. While the number of *issues* on the NOC’s agenda varies per meeting, the typical meeting covers 10 to 12 *issues*. If available, NOC members also review previous meeting minutes, future *issues* and *action* items. *Issues* were often associated with “Follow-up Actions.” These *actions* were explicit recognitions of specific tasks assigned to individuals. They identified the substance of requested tasks and contained due dates, the

garnering input from members and extra-council parties (within and outside of the agency), coordinating input to bring a *corporate* ocean policy perspective to bear on a particular *issue*, monitoring current ocean policy trends/ activities (especially by major ocean policy groups or bodies), and drafting an advisory document on strategy, policy and/ or planning. The frequency of *actions* by the NOC per meeting is variable, but ranges from approximately 8 to 9 incidences per meeting.

NOC decisions involved the approval of a recommendation on ocean policy or a related *issue* to the NEC/NEP, or to extra-agency ocean policy bodies. Decisions also involved the determination to move forward on an *issue* (e.g., the NOC will ... coordinate with the RC on issue 'x', disseminate, explore, retrieve, collaborate...). These decisions were frequently associated with a corresponding action. The frequency with which the NOC offered decisions varied, but approximated 1 to 2 incidences per meeting. I identified approximately 4 to 5 *impetuses for activity* per meeting. *Impetuses* for the NOC's activities arose from a set of immediate causes, including the interests of council members (particularly *leaders* and *multi-hatters*), the council's organizational role, NOAA's leadership, the requests of line offices, staff offices, other councils and other entities within the federal government (e.g., JSOST), as well as from trends in the policy and science arena. These *impetuses* were channeled by structural forces, specifically the U.S.'s democratic governmental system, including its associated apparatus and phenomenon such as congress, a diversity of constituents, the Agency's *mission*, external *drivers* and trends.

NOAA Research Council (RC)

Table 7.3: NOAA Research Council Meetings by Analytical Categories*

RC	Issues	Actions	Decisions	Impetuses
Meeting 1	6	4	0	6
Meeting 2	8	5	0	4

Meeting 3	8	10	0	4
Meeting 4	13	19	0	5
Meeting 5	9	8	0	4
Totals	44	46	0	23

*Incidents of *issues*, *actions*, *decisions* and *impetuses*

The Research Council engages *corporate* issues related to NOAA’s research portfolio, such as NOAA’s strategic plan for research, engagement of extra- and intra-governmental science advisory groups and NOAA’s annual activities. The RC takes on approximately 6 to 9 *issues* per meeting, and distinguishes new *issues* from old *issues* by using the labels “New Business” and “Old Business.” The RC also houses *issues* under the categories of “Action Items” and “Announcements.” The “Action Items” were used to discuss the status of an *action* (i.e., ongoing, closed). The “Announcements” were updates on ongoing processes or introductions as well as reminders of upcoming events. The council produced an assortment of *actions* involving the coordination of corporate NOAA input, collaboration with other NOAA offices, councils and/ or external bodies, briefing preparation, information gathering, council member input on advising a NOAA office, or NOAA’s leadership on a substantive research issue. The RC identified *actions* in the council’s official meeting minutes (i.e., “Action”). It also kept a running list of “Action Items” in a document titled “Research Council Action Tracker,” identified items, contact names, due dates, status of the *actions* (i.e., completed, in progress) and notes. The RC issued approximately 4 to 10 *actions* per meeting.

While I did not identify any *decisions* in the case study data, additional data does indicate the RC makes a few *decisions* each year. The RC’s *decisions* involved approval of advice or recommendations to, NOAA’s leadership, major NOAA offices and external bodies on *strategic issues* related to NOAA’s research portfolio. I identified approximately 4 to 5 *impetuses* per meeting — e.g., fulfill the council’s role as the driver of NOAA’s strategic approach to research, tasked by NOAA’s leadership, provide a corporate perspective on NOAA’s research to extra-

agency groups. The *impetuses* were the same as those identified for the NOC (see NOC Meeting Analysis on page 116) and to a lesser extent for the NEC and NEP. The *impetuses* for the RC's activity were channeled by the same structural forces that channeled the NOC's activity (see NOC Meeting Analysis on page 116).

NOAA Executive Panel (NEP)

Table 7.4: NOAA Executive Panel Meetings by Analytical Categories

NEP	Issues	Actions	Decisions	Impetuses
Meeting 1	2	1	1	3
Meeting 2	4	3	1	3
Meeting 3	1	0	1	1
Meeting 4	2	1	2	2
Meeting 5	3	1	2	3
Totals	12	6	7	12

The NEP took on *corporate policy issues* that were *strategic*, *operational*, and *day-to-day* in nature. The *issues* represented the formulation/ implementation of *strategic* and *operational* policy, *operational* oversight, major acquisitions and problem/ crisis resolution. The council also dealt with *issues* related to major NOAA projects with extra-agency partners (e.g., intra-governmental, international, academia) and execution problems. These involve activities related to NOAA's annual business cycle (particularly the major milestones in the PPBES), the federal government's annual business cycle, and policy implementation (e.g., from the OMB). The NEP addressed approximately 2 to 3 *issues* per meeting. The number of *issues* dealt with per meeting may be associated with the stature and complexity of *issues* on the agenda (e.g., an annual business milestone was discussed for an entire meeting). The NEP did not distinguish older *issues* from newer *issues* in its documents. *Issue* presentations were generally assigned one of three designations, a "decisional brief," an "informational brief" and a "discussion brief." The first designation was used less frequently than the latter designations, and some *issues* were not

associated with any of the designations. Compared to the NOC and RC, the NEP addressed *issues* that were broader and more general in nature. The NEP routinely issued *actions* that charged corporate offices, members, line offices and other councils to take *action*. These *actions* involved implementing corporate policy, investigating an issue, gathering information and developing implementation plans. Responsible parties and due dates were generally identified with the corresponding *action* in the council's documentation. The NEP issued approximately 1 *action* per meeting. These were recorded in NOAA Decision Memorandums (NDMs) and in the panel's meeting minutes.

The NEP's *decisions* were related to 1) the vetting of *strategic* policy formulation and policy implementation for the NEC, 2) the formulation and implementation of *operational* policy, 3) the oversight of major NOAA projects (e.g., acquisitions, major domestic/international initiatives), 4) the implementation of NOAA *strategic* policy, 5) the resolution of *day-to-day* problems, and 6) the oversight of NOAA's structural and *operational* functioning. The NEP issued approximately 1 to 2 *decisions* per meeting. As with the other councils, the *impetuses* for the panel's activities were not highlighted but often were integrated into the substance of *decisions*, *actions* and discussions. The NEP identified approximately 2 to 3 *impetuses* per *issue* per meeting, slightly different than the preceding councils. Immediate *impetuses* included the NEP's official role, federal policy implementation, DOC requests or requirements, requests from other entities within the executive branch, the interests of the Under Secretary and the NEC, and the interests of NEP members, of the NEP *leader*. *Impetuses* for the NEP's activities were channeled by the same structural forces that directed the activities of the NOC and RC (see NOC Meeting Analysis on page 116).

NOAA Executive Council

Table 7.5: NOAA Executive Committee Meetings by Analytical Categories

NEC	Issues	Actions	Decisions	Impetuses
Meeting 1	2	1	2	2
Meeting 2	2	No Data	No Data	2
Meeting 3	1	0	0	1
Meeting 4	2	2	2	2
Meeting 5	2	0	0	2
Totals	9	3	4	9

My analysis indicated that the NEC allocated its efforts to formulating and implementing *corporate strategy* (e.g., annual business activities), and to acting as the Agency’s lead on domestic and intra- and inter-governmental issues. The council also addressed *corporate* crises, and potential problems. The NEC viewed approximately 2 *issues* per meeting. The tenure of *issue* engagement (e.g., old business) was not identified in the NEC data. The NEC designated one of two labels to the presentation of most issues, a “decisional briefing” and an “informational briefing.” Housekeeping *issues* related to proper protocols or rules of operation were addressed under the label “opening remarks”, or “discussion.” The NEC issued approximately 1 *action* per meeting. The NEC issued these actions to its members and their organizational affiliations and subordinates for 1) attending to details of major annual business milestones, 2) directing intra- and inter-governmental coordination on major activities and 3) ensuring the implementation of federal policy. More specifically, observed NEC *actions* called for coordination between two NOAA groups and technical verification. Official notations of *actions* identified in a NOAA Decision Memorandum were often embedded in a *decision*. For example, a *strategic* statement with revisions might be approved by the council, but the needed revisions would be implemented

by a specified party. Responsible parties and due dates were identified with the corresponding *actions*.

The NEC's *decisions* reflected the council's lead role in formulating and implementing *strategy*, and as a *corporate* problem solver. The NEC's *decisions* involved major annual business milestones — e.g., *strategic* formulation and implementation, intra-governmental coordination, oversight of *corporate* interactions and involvement with major intra-governmental programs and initiatives. The NEC issued approximately 0 to 2 *decisions* per meeting. The *impetuses for activity*, when not explicit, were identified in the substance of *decisions*, *actions* and discussions. Explicit *impetuses for activity* included those 1) requested by the Under Secretary, 2) with a problematic or high-profile corporate *issue*; those that 3) had a federal budgetary problem, 4) annual business process activities for the Agency and the federal government, and 5) an impending deadline for high-profile intra- and inter-governmental initiatives. The council identified approximately 2 *impetuses for activity* per meeting. Immediate *impetuses* for NEC activities included the NEC's organizational role, the interests of the Under Secretary and other NEC members, major intra- and extra-governmental efforts and federal and Agency crises. The *impetuses* for the NEC's activities were channeled by the same structural forces that directed the *impetuses* for the other councils (see NOC Meeting Analysis on page 116).

Summary: Meeting Analysis

In sum, some general observations can be made. While all councils engage *corporate issues*, there were differences in the *issues* they addressed. The RC focused on research *issues* as well as the research aspects of more general *issues*, such as *corporate* guidance for long-term planning. Similarly, the NOC addressed ocean policy *issues* and the ocean policy aspects of

larger *strategic* and *operational* initiatives. These two councils did overlap in their jurisdiction, as many *issues* have elements of both research and ocean policy. While the NEP also engaged *corporate issues*, it does so from a more comprehensive perspective, and dealt with significant *issues* relative to policy including formulating and implementing both *operations* and *strategy*. The NEC performed *corporate* policy-making, particularly strategy formulation, and to a lesser extent strategy implementation. The NEC also addressed major *corporate* problems as needed, and makes modest contributions to *operational* policy.

Stage 3: A Council Analysis

I conducted a functional analysis by comparing the activities and outputs of the various councils, in order to understand the unique processes of each council relative to the others. I present the results of this analysis along categorical divisions (see Table 7.6 for summary of totals) in the following order: NOC, RC, NEP and NEC. Prior to presenting my findings, I describe the universality of *issues* or *agenda items* and my use of this category in my analysis.

While all four of my analytical categories are routinely present in the data, the category of *issues* is the only one that is present in the data for all 20 of the meetings analyzed. The regularity of *issues* is not surprising because they represent the substantive categorical item — what participants talked about. In turn, *issues* represent the substantive element that *decisions* and *actions* resulted from. And, *impetuses for activity* are what cause *issues* to land on a council's agenda. Hence, *issues* provide an anchor for my council analysis.

Table 7.6: Categorical Totals across Councils

Council	Issues	Actions	Decisions	Impetuses
NOC	55	54	7	21
RC	44	46	0	23
NEP	12	6	7	12
NEC	9	3	4	9

NOAA Ocean Council

For the NOC council group of 5 meetings I identified 55 *issues*, 54 *actions*, 7 *decisions*, and 21 *impetuses*. The NOC addressed more *issues* than any of the other councils — approximately five times the number of *issues* than either the NEC or NEP (Table 7.6). Interestingly, new *issues* accounted for only 17 of the 55 *issues*. In fact, most of the *issues* addressed by the NOC were previously engaged by the council (i.e., “ongoing NOC business”). The NOC also issued more *actions* than any other council. In fact, the NOC issued 7 to 12 times as many *actions* as the two highest level councils, the NEP and the NEC. While the NOC was associated with more *issues* and *actions* than the RC, the incidences of *issues* and *actions* were relatively commensurate for both councils. The number of *issues* and *actions* (Table 7.6) indicate that the NOC routinely addressed more *issues* per meeting and generated more immediate activities per *issue* than the other councils. In addition, the NOC repeatedly addressed the same *issues* at different meetings over time.

The orientation of NOC *actions* — i.e., coordination, monitoring ocean policy trends, collaboration, drafting — and the NOC’s tendency to address the same *issues* repeatedly may indicate that the NOC tends to examine and develop an *issue* over time. This interpretation of the NOC’s workings is identified in my interview data. In the words of a NOC member:

The NOC, [and the other lower] councils, have continuing commitments to working on issues over time...and developing and sorting through ideas that can help the NEC. If the councils are doing their jobs, if the NOC is doing its job, it can bring an issue or somebody can bring an issue that is dealt with..... and the NOC members can explain and explore the various parts of that, that are important, and um, in a way that it will make it easy for the NEC to be able to deal with the decision, will help clarify for leadership upwards of what needs to happen. But basically, the NOC will take something like

legislation. It might take two or three meetings to go over it. It will have an ongoing agenda, a suite of things that it cares about... .

The NOC member believes that all or many of the lower councils (i.e., all councils except the NEC and NEP) also have "...continuing commitments to work on issues over time."

The NOC's decisions were associated with *issues* in a one-to-one relationship, and most *decisions* (i.e., 5 of the 7) were associated with "new business." Interestingly, the raw number of *decisions* (7) issued by the NOC for the five meetings under review was considerably more than the number issued by the RC, and on par with the NEC and NEP. However, the relative frequency of *decisions* per *issue* for the NOC was considerably less than the two highest councils, but more than the RC.

For the NOC, I identified 21 occurrences of *impetuses*. The NOC identified *impetuses* at a lower rate than any of the other councils, as 19 of its 55 *issues* were associated with an *impetus*. However, the NOC's pattern of association is similar to the RC, as 19 of its 44 *issues* were associated with an *impetus*.

The NOC's overall categorical pattern was comprised of a high number of incidences for *issues* and *actions*, a low number of incidences for *decisions* and a relatively low number for *impetuses for activity*. This indicates that the NOC allocated much of its temporal resources to addressing diverse *issues*, as it employed collaboration, coordination and information exchange in support of its advisory role on ocean policy and related activities. These findings confirm that the NOC does indeed have "...continuing commitments to working on issues over time..."

NOAA Research Council

For the RC council, I identified 44 *issues*, 46 *actions*, 0 *decision* and 23 *impetuses* (Table 7.6). The RC engaged approximately 4 times the number of *issues* than the NEC and NEP, and in relative terms the RC saw some 80% of the number of *issues* viewed by the NOC. As in the

case of the NOC, most of the *issues* viewed by the RC were previously addressed by the council earlier, as indicated by the *issue* categories of “old business” and “action items” (i.e., comprises 24 of the 44 issues). The RC also issued a considerable number of *actions* (i.e., 46) in relation to the number of *issues* (i.e., 44) it addressed. The RC issued the highest number of *actions* relative to the number of *issues* engaged by any of the four councils. While the number of *actions* issued by the RC is on par with those issued by the NOC (in both relative and absolute terms), this is substantially more than the number of *actions* issued by the NEP and NEC. The 46 *actions* were associated with a majority of the *issues* (i.e., 27).

The raw number of *issues* and *actions* indicates that the RC addressed a relatively high number of *issues* per meeting and generated a relatively high number of immediate activities per *issue*, compared to the three other councils. In addition, the RC repeatedly addressed many of the same *issues* over time. The RC data for the analytical categories, and the relationships between categories and sub-categories (e.g., issue types), indicates that the RC has a functional pattern that is similar to the NOC’s. As with the NOC, the orientation of the RC’s *actions* and the tendency of the RC to revisit *issues* probably indicates the RC’s tendency to examine and shepherd an *issue* through a portion of its life cycle.

As stated previously, no *decisions* were observed in the case study data for the RC. However, additional data indicate that the RC has made *decisions* on recommendations to the NEP and NEC, reflecting the RC’s advisory role. For the RC, the 23 incidences of *impetus* were associated with 19 *issues*. So, 25 of the 44 issues engaged by the RC were not associated with an observed *impetus*. As noted, this pattern of association is similar that of the NOC. Because many of the RC’s *issues* were classified as “old business”, “action items” or “announcements”, the *impetuses* may have been recognized at a previous meeting and thus understood at the time of

my observations, negating the need to identify the *impetuses*. In turn, particular *impetus* may have been immediately obvious to council members, also negating the need for their identification.

The RC's categorical pattern (Table 7.6) is characterized by a relatively high number of *issues* and *actions*, an extremely low number of *decisions*, and a relatively low number of incidences for *impetus*. This indicates that the council addressed a diversity of *issues* and revisited many of these *issues* over time via information exchange/ collaboration, based on its *advisory* and, to a lesser extent, oversight role with regard to NOAA's research portfolio.

NOAA Executive Panel

For the NEP council group, I identified 12 *issues*, 6 *actions*, 7 *decisions*, and 12 *impetuses* (Table 7.6). The NEP engaged a considerably lower number of *issues* than the NOC and RC. However, when compared to the NEC, the NEP viewed 3 more issues (or 33% more than the NEC). Ten of the NEP's *issues* were given briefing categories, including a "decisional brief," a "discussion brief," and an "informational brief." Two other *issues* were referred to as briefs in the data, but were not identified with one of the briefing categories. Two of the 12 *issues* viewed by the NEP were engaged twice, and were recognized as "discussion" and "information" briefs, respectively. The NEP issued considerably fewer *actions* (i.e., 6) than did the RC and the NOC in relative (as a percentage of *issues*) and absolute terms. While the NEP addressed a higher number of *issues* and *actions* than the NEC, the incidences for both councils were much closer in number than to the corresponding number of incidences for the RC and the NOC.

The NEP issued 7 *decisions* and is equal with the NOC in issuing the most *decisions*. The NEP not only issued the most *decisions* in absolute terms, it also issued the most *decisions*

in relative terms (12 *issues*). The NEP's *decisions* were associated with *issues* in a one-to-one relationship. *Decisions* were associated with all briefing types, including "decision," "information," and "discussion" briefs. The nature of the NEP's *decisions* reflected the panel's *advisory* role to the NEC on *corporate strategy* and significant *operational issues*, as well as its role as overseer of operational policy and strategy.

I identified 12 incidences of *impetuses for activity* in the NEP data. In fact, 11 of the 12 *issues* were associated with an *impetus for activity*; this indicates that most *issues* were associated with at least one *impetus for activity*. This pattern of association is significantly different than that identified for the NOC and RC, as *impetuses* were linked with *issues* for less than half of the *issues* viewed by each of these councils. As implied in the previous section, this may very well be because many of the *issues* seen by the NOC and RC were seen previously by these councils, so these issues may not have necessitated an explanation of their *impetuses* as members may have already been familiar with them.

The NEP's overall categorical pattern is characterized by a relatively low number of incidences of *issues*, *actions*, *decisions* and *impetuses* compared with the NOC's and RC's. However, when compared with the NEC, the NEP had slightly more incidences for each of the four analytical categories. The NEP also issued more *decisions* per *issue* than any of the other councils. This analysis indicates that the NEP allocates much of its temporal resources to reviewing policy recommendations emanating from diverse entities on implementation/ formulation of policy within the Agency. The data also indicates that the NEP spent much of its time reviewing and overseeing implementation and/ or execution of federal policy items (e.g., personally identifiable information).

NOAA Executive Council

For the NEC meeting group I identified 9 *issues*, 3 *actions*, 4 *decisions*, and 9 *impetuses*. The NEC engaged the lowest number of *issues* of any council, in fact, a significantly lower number of *issues* than did the RC and the NOC. Seven of the *issues* seen by the NEC were labeled as a particular type of brief — “decision,” “discussion” and “information.” One of the *issues* not identified as a brief was categorized under the label “opening remarks.” I lacked data for the other non-brief *issue*. The number of *actions* issued by the NEC was also considerably lower than the RC and the NOC in terms of an absolute count. While the absolute number of NEC actions was only 3 less than the NEP, this is considerably less in relative terms as the NEC issued 1 *action* for every 2 *actions* issued by the NEP.

The NEC issued 4 *decisions*, the lowest of any council. In relative terms, the NEC actually issued *decisions* at the second-highest rate of the four councils (4 *decisions* engaging 9 *issues*). The NEC is the only council to have all of its *issues* associated with an *impetus* (9). As with the NEP, this indicates that most of the NEC *issues* were presented to the council for an explicit reason. This pattern of association between *issues* and *impetuses for activity* is significantly different than that identified for the NOC and RC, as *impetuses* were linked with *issues* for less than half the *issues* viewed by each of these councils.

The NEC’s overall pattern is characterized by a low number of incidences for every category. Compared to the other councils in absolute terms, the NEC engages the lowest number of *issues* and sets forth the lowest number of *actions* and *decisions*. However, when viewed from a relative perspective, the NEC actually generates more outputs per *issue* than the RC and NOC. Likewise, from a relative perspective, the NEC had the strongest association between its

issues and its *impetuses for activity*, as every *issue* was explicitly linked to an *impetus for activity*.

Summary: Council Analysis

In closing, we can make several observations on my council analysis. The NOC and RC are associated with considerably more *issues* and *actions* than the NEP and NEC. This may be indicative of their roles as triage councils for ocean policy and research *issues* respectively. This pattern also is in line with the roles that the NOC and RC play as shepherds or caretakers of *issues*. That is, these councils tend to engage an *issue* repeatedly over the course of several meetings to further explore the *issue*, and foster collaboration and coordination. The lower number of *issues* viewed by the NEC and NEP may be indicative of their roles as the highest deliberative bodies, and thus only address significant *corporate issues* that are *strategic* and *operational* in nature and not *issues* that can be resolved by a subordinate council, office, or individual. In fact, the high number of *decisions*, in relative terms, issued by these councils is most likely indicative of their roles, and the roles of the *leaders* of these two councils (i.e., the Under Secretary of Commerce and the Deputy Under Secretary of Commerce) as NOAA's supreme policy-makers.

Stage 4: Systems Analysis

I used a between-council, or systems analysis, to analyze the flow in and out of each council in order to gain an understanding of how the councils relate to one another, other parts of the organization, and the extra-organizational environment. I focus my analysis on the flow of members, information and resources in and out of councils.

Overlapping Membership

By comparing the memberships of the councils to identify overlapping members, my analysis of membership highlights connections between groups via their members. I did not list the actual membership of the councils in this dissertation in order to protect the anonymity of my research participants. Below, I identify overlapping members (Table 7.7) and provide suggestions about the significance of these relationships. I offer the results of my analysis by starting with the NEC and proceeding to the NEP, RC and NOC. Two of the NEC's principal members were principals on the NEP. One of the NEC's principal members was a principal on the RC and two of the NEC's principal members were principals on the NOC. All three of the lower councils are led by a principal NEC member. The overlapping membership between the NEC and the three other councils would seem to insure that the subordinate councils are informed of issues that are important to the highest members of NOAA's leadership.

Table 7.7 Councils with Overlapping Members

Relationship	Number of Overlapping Members
NEC-NEP	2
NEC-RC	1
NEC-NOC	2
NEP-RC	1
NEP-NOC	2
RC-NOC	2
Other Councils/Outside boards (e.g., JSOST)	2

The councils with two NEC members may benefit from a stronger voice at the NEC level. In addition, the members of these councils may be more accurately informed, as they have two members with knowledge of the NEC, may lead to more comprehensive and accurate reporting

of the NEC's activities. Along these lines, the lone overlapping member between the RC and the NEC may wield considerable power at the RC since this individual is the only NEC member present.

One principal member of the NEP was also a principal member of the RC. The latter council may benefit from having two principal members who also sit on NOAA's two highest councils, the NEC and the NEP, since they would have two channels of information from NOAA's highest leaders. One principal member of the NEP was a principal on the NOC. Another principal member of the NEP was a frequent participant in NOC meetings. The NOC and RC shared two principal members. Further, I was able to discern that the principal members of the NEC, NOC, and RC represent NOAA on several executive branch committees, and thus have access to sister agencies and offices of the executive branch. There also may be NEP members on extra-organizational committees, though I was not able to confirm this from my data. On a number of occasions, a principal of one of the councils attended the meetings of a second council to hear or deliver a brief.

This membership analysis offers a view into the *multi-hatting* discussed in the previous chapter on grounded theory. One would expect that the people who sit on several committees have a greater knowledge of NOAA's and the federal government's business processes and thus are better prepared to take the lead in group decision-making. This insight is supported in the literature, as organizational theorists and scientists in related fields have long recognized that individual group members who have access to pertinent information may use this information to further their interests (i.e., as a source of power) (Browne 1993). These individuals may distill information in such a way that it benefits their agenda. Furthermore, the mere fact of being the conduit for information from a regarded or respected source affords the messenger a degree of

clout, as he/ she also has the ability to represent the group to the source, and thus wields power, to varying degrees, over the rest of the group.

Information

Information flows between councils and between councils and other entities (e.g., line offices, staff offices, working groups, extra-organizational entities) in the form of documentation (e.g., reports, drafts), requests for action or information, recommendations and decisions. I collected this data on information flows from a review of the data for several analytical categories for each council including *decisions*, *actions*, and *impetuses*. I present findings of my analysis of information flows in and out of councils in the following order: NEC, NEP, NOC, and RC.

The NEC receives information emanating from within and outside of the Agency, including information on corporate strategy, major intra-governmental, domestic and international efforts. This information is often the substantive information from which decisions are made. The most frequent intra-organizational sources of information for the NEC are the Agency's line offices, staff offices and councils. Information from intra-organizational sources is often transmitted by representatives of the source and by council members. The NEC also receives information from a number of extra-agency sources, particularly those within the federal government such as the DOC, the President's Office of Management and Budget (OMB) and the U.S. Congress. This information is often a directive or a policy and is frequently transmitted via a memo to NOAA's leadership as well as through direct conversation between NOAA's leadership, representatives of the entity and through council members. The NEC transmits information to a number of different audiences within the Agency, including staff offices, line offices, programs, NOAA's headquarters staff, a portion of the Agency and the entire Agency.

The NEC also transmits information to a number of entities outside the Agency including entities within the federal government, constituents, international parties, and the like. This information frequently includes messages on corporate strategy (formulation and implementation), new projects, programs and initiatives. Some of the information transmitted by the NEC contains specific directions (i.e., action or decision) that are intended to be followed by an individual, a particular office(s), and or a council(s).

The NEP receives information from extra- and intra-agency sources. Intra-agency sources included line offices, staff offices, councils, boards and programs. Extra-agency sources comprised the federal government, particularly entities within the executive branch as well as congress, constituents, international entities and the science community. Information from these sources often is transmitted directly by the source (e.g., a brief or memo) or by a panel member. The NEP sends a diversity of information to a variety of entities. The NEP sends information related to policy implementation and operational issues to staff offices, line offices and to all of NOAA through these offices. The NEP sends recommendations and updates (on strategic and operational policy) to the NEC via NOAA decision memorandums. The NEP also sends information in the form of actions and decisions to staff offices, line offices and programs. In addition, evidence indicates that the NEP sends information in the form of tasks to the NOC and RC, and to many of the other NOAA councils (e.g., to coordinate, investigate, collect information, direct). The NEP also sends information to outside the organization to entities in the executive branch of the federal government, to international entities and to the science and academic communities.

The NOC receives information from a variety of sources, both from within the Agency and external to NOAA. Extra-organizational sources include entities within the executive branch

of the federal government, external review boards, the U.S. Congress, constituents and other government entities. The information emanating from these sources is often transmitted from a council member on a working group, a council member who has membership on an external group, or through related NOAA offices (e.g., NOAA Office of Legislative Affairs).

Information from intra-NOAA sources comes from NOAA programs, NOC working groups, a line office or staff office and other NOAA Councils (including the NEC and the NEP). The information flowing into the NOC is on ocean policy trends and related activities. The NOC sends information to diverse entities, both within and outside of the Agency including line offices, other NOAA councils (including the NEC and the NEP), staff offices, executive branch committees, congress and external review boards. The NOC sends information through various channels including council members, NOAA staff offices and other councils. Information flowing out of the NOC is often in the form of recommendations and/ or is related to collaboration and coordination activities.

The RC receives information from a variety of sources, both intra- and extra-agency. Extra-organizational sources included entities such as offices, agencies, and committees in the executive branch and congress, as well as the science, research and academic communities. The information from these sources may be transmitted directly to the council from a council member, the NEP or NEC, or may come from another NOAA entity (e.g., line office, staff office). Information from within the Agency may come from a staff office, a line office, NOAA's leadership (e.g., the DUS, NEP, NEC), another council, a program or a laboratory. Information coming into the RC is related to NOAA's research, including potential research topics or endeavors, as well as research policy. The RC sends information to both intra- and extra-agency entities in the form of recommendations and general information on research-

related issues. Within NOAA, the RC sends information to NOAA's leadership (e.g., NEP, NEC, and the DUS), other councils/ boards, staff offices, line offices, programs and all NOAA employees. The RC also sends information to extra-organizational entities in the federal government such as offices in the executive branch, the U.S. Congress, and constituents in the academic, research and science communities. Much of the information sent by the RC is in the form of recommendations on research-related topics.

Resources

The third type of flow I analyzed in the system analysis is the flow of resources. This analysis aims to gauge the time investment made by council members working on an *issue* put forth by another council or the lead of another council. As these councils are in a hierarchical reporting relationship, it is logical to assume that the higher-level councils make requests of those below. This assumption does apply to varying degrees. Data for this analysis was collected from a review of the *decisions*, *actions* and *impetuses* for all meetings. Upon review, I identified incidences in which one council requested the efforts of another council to engage a particular task. I also note the types of activities engaged by the receiving council in meeting the request, and offer an approximation of the number of times the council has dealt with particular issues. I review my findings from this resource analysis below and proceed in my presentation from the RC, to the NOC, to the NEP and finally to the NEC.

The RC engaged requests from the NEP, NEC and the Deputy Under-Secretary of Commerce in four of the five meetings I analyzed. These instances represent three major *issues* that necessitated a considerable amount of council time for analysis, information collection, and collaboration with other entities within and external to the organization. One of these requests was addressed in three of the meetings. I discerned from other data that the other two issues

were also viewed repeatedly over the course of a number of meetings. As the RC engaged 44 *issues*, the three requests are not a large amount in light of the council's total load. With this noted, it should be recognized that this council addressed a diversity of *issues*, that required varied amounts of council time (e.g., from a few minutes to working on an issue repeatedly over several months). My assessment indicates that the RC allocated a considerable amount of time to meeting the above requests from the NEP, NEC and the Deputy Under-Secretary of Commerce.

The NOC's data revealed a similar resource pattern to the RC's. The NOC handled requests from the NEP, NEC, the Deputy Under-Secretary and the Under-Secretary of Commerce in four of the five meetings covered in my analysis. These four instances actually represented three requests, one of which was discussed in two different meetings. The council's engagement of these requests involved analysis, information collection and collaboration with other entities within and external to the organization. I discerned from other data that all three *issues* were seen on a number of occasions by the NOC. As with the RC, this assessment indicates that the NOC allocated a considerable amount of time to meeting the requests of the NEP, NEC, the Deputy Under-Secretary and the Under-Secretary of Commerce.

The NEP engaged two requests specifically from the Under-Secretary. In addition, the NEP viewed two more *issues* for vetting prior to the NEC's review. In fact, part of the NEP's role is to vet and refine *issues* prior to their review by the NEC. The NEP's review is, among several objectives, intended to lessen the amount of time the NEC will need to spend on assessing an *issue*. In total, one-third (i.e., 4 out of 12) of the *issues* attended to by the NEP were either explicitly or implicitly requested by the NEC and the Under-Secretary. I suspect that there were actually more *issues* that were requested by these parties, but they were not discernable

through my observations. This assessment indicates that the NEP spent a relatively sizable amount of its time addressing *issues* that were requested by the NEC. The NEC did engage *issues* that were vetted by the other three councils, however the NEC is not subordinate to the other three councils and thus was not tasked by any of the other councils to address a specific *issue*.

The between-council analysis indicates that there are a number of avenues for the exchange of flows between and among councils and the rest of the Agency. Notably, all councils receive and send information to extra-organizational entities, both within the federal government and outside it. With regard to membership, all councils share members, but in most cases there are no more than two overlapping members. This means that the members who overlap do carry information that is not widely available, and as a result are most likely considered valuable sources of information at council meetings. While my analysis captured many of the members who sit on different councils, it did not capture a number of members who sit on other councils, boards, and so forth. Thus, individuals can be expected to have access to information that their councils members do not. The appropriation of council members' time seems to relate to the hierarchical relationships between councils, as the NEP/ NEC appropriates the time of RC/ NOC members and the NEC appropriates time of NEP members. As one might expect, the lower-level councils do not appropriate the NEC's time. When a council's time is appropriated by another entity there is a somewhat hidden cost to the subordinate council, an opportunity cost. When the time of the NOC, RC and NEP is appropriated, they lose the opportunity to engage in other activities that might be equally as important in meeting NOAA's mission goals and in fulfilling the council's role.

NOAA’S Executive Decision-making Process: In Light of My Observations

My findings indicate that the workings of the EDP are much more flexible and contextually contingent than those sketched in the official description offered in Chapter 3, “The Context of My Research.” Some of the *issues* are single events; others, like major *PPBES* milestones will be received annually. The EDP may start from a proposal or *issue* brought to the fore by an office, program, laboratory, council, line office, staff office or a member of NOAA’s leadership. Most *issues* are reviewed by a number of bodies in an iterative fashion. In turn, one party or some coalition of involved parties takes the lead to facilitate movement of the *issue* through the EDP. The workings of the EDP can be viewed as a hierarchical, step-wise process. This is the process by which the lower councils, such as the NOC and RC, issue *decisions* and *actions* as they coordinate, review, revise, and/or collaborate on the vetting of an *issue*. If the *issue* cannot be resolved at the council and line office level it is sent to the NEP. The NEP will review, define and vet the *issue*. In addressing the *issue*, the NEC will issue *actions* and/ or *decisions*. Strategic *issues*, major acquisitions, and crises are forwarded to the NEC for review and further action. Upon the NEC’s review of an *issue* the council will offer *actions* and *decisions* in processing the *issue*. While a *decision* may be the final step in an *issue*’s migration, both *actions* and *decisions* may lead to more activities by the NEC, NEP and/ or a lower council.

CHAPTER 8

FINDINGS — A CONCEPTUAL FRAMEWORK AND AN ISSUE MIGRATION STORY

Decision-making in the forums I have been discussing is carried out by a executive-driven decision-making process. This process, while varying by forum and frequency, involves exploring the *issues*, identifying relevant *concerns*, proffering next steps or recommendations and engaging the next steps under the direction of official *leaders* and *multi-hatters*. A central activity pursued by all councils and particularly the lower ones (i.e., NOC and RC) in this deliberative process is sensemaking. When confronted with issues, the decision-makers need to make sense of the issue and determine if and how they should respond (i.e., take action) be it a decision on policy, recommendation/ advice and/ or executing an action (e.g., collect information, garner participation, foster collaboration). While sensemaking characterizes much of the phenomenon captured in my meeting observations, it is situated within a larger context that involves the interrelations of councils, the organization and the extra-organizational environment. In light of this, I believe that the activities of forums and their myriad deliberative outputs (i.e., *decisions* and *actions*) are influenced by an interactive relationship between issues, the members, their councils and the organizational and governmental contexts.

Later I present a synthesis of findings by offering a mock scenario to demonstrate the activities of these councils and how an *issue* might be addressed. Prior to this, I describe the synthetic and simulated nature of my issue migration story and explain how the properties of sensemaking are addressed. I then describe the mock *issue* and offer my migration story I close

this chapter with a discussion on the significance of my findings to sensemaking and to executive decision-making at NOAA.

A Mock Synthesis of Findings and the Operationalization of Sensemaking

Because the deliberation process was multi-dimensional and *issues* migrated according to a relatively fluid set of factors or components including constituent interests, *issue* characteristics, the roles of councils and the interests of members, this description represents just one of the many possible migration stories that might take place. I focus on the activities of the four councils under study and what they talked about. In showing the way councils work and the interrelations of councils I use an amalgam of actual and modified quotes from my data as well as pointing out conceptual and categorical patterns in the data to illustrate interactions and inter-forum workings more accurately while identities protecting individual identities. I observed only a portion of the phenomena (i.e., decision-making) under study, so my migration story presents discrete parts of the process and not the entire migration of the issue. While I do not cover every interaction (e.g., meetings, verbal exchanges), I am able to convey a general understanding of the activities pursued within councils and between councils.

In the literature review I noted that sensemaking is (Matlis 2005: 21):

... [A] process of social construction in which individuals attempt to interpret and explain sets of cues from their environments. This happens through the production of ‘accounts’ – discursive constructions of reality that interpret or explain – or through the ‘activation’ of existing accounts. In either case, sensemaking allows people to deal with uncertainty and ambiguity by creating rational accounts of the world that enable action. Sensemaking thus both precedes decision making and follows it... .

I also presented seven properties or characteristics of sensemaking implicit in this definition. Some of these properties refer to explicit activity, such as the enactment of sensible environments and the selection and interpretation of cues, and thus are easy to demonstrate. The enactment of sensible environments involves engaging undefined space, time, action and

defining these environments by the creation of categories, labels, boundaries, and so forth. The selection and interpretation of cues involves the identification of specific characteristics or attributes and the interpretation of these. These two properties are closely associated, as they can be employed iteratively by a social group. Other properties, while also demonstrable, are passive or implicit such as the ongoing nature of sensemaking, its social nature and its rooted-ness in individual identity. While the ongoing nature of sensemaking is more difficult to discern, because it necessitates long periods of close observation, one can garner an understanding of its ongoing nature at NOAA by the multiple sensemaking sessions — on the same *issue* — in my migration scenario.

The relationship between individual identity and sensemaking became evident in the roles played by members and particularly the *leaders* and senior *multi-hatters* as they led the sensemaking activities. In turn, the social nature of sensemaking is explicit, as my study focuses on explicitly social phenomena — i.e., organizational decision-making processes. The retrospective nature of sensemaking is, in a sense, given, since by definition all perception is retrospective (Weick 1995). Plausibility is difficult to determine as it is contextually and subjectively defined. However, if we accept Matlis's (2005) insight that plausibility implies a course of action and in fact leads to action, we can rely on the stated actions (i.e., *decisions* and *actions*) as evidence of plausibility (i.e., that an account is reasonably accurate/ believable). In total, three of the seven properties are explicitly identifiable and thus can be highlighted in the data. These include the enactment of sensible environment, the selection and interpretation of cues and the plausible nature of sensemaking accounts as indicated by action (i.e., *actions* and *decisions*). In my migration story, I use colored highlighting to assign three properties: **Green =**

the enactment of sensible environment, Yellow = the selection and interpretation of cues and Turquoise = the plausible nature of sensemaking accounts.

The migration story starts with a description of context, by identifying the relevant parties, the *issue* and any other information related to the setting. The next information in the sequence involves a meeting in which one or more of the active properties of sensemaking are engaged, namely the enactment of a sensible environment and the selection and interpretation of cues. The final segment in the sequence involves the identification of an output, namely an *action* or a *decision*. This last segment indicates a plausible account.

A Mock Issue Migration Story

Mock Issue — The Yearly Strategic Memorandum (YSM)

As part of NOAA policy to conduct out-year planning, NOAA issues an annual guidance memorandum. The yearly *strategic* memorandum (YSM) is grounded in the requirements, agency mandates and current and future *issues* that the Agency needs to address. The content of this memorandum is built upon last year's version of the memorandum. The YSM outlines the *corporate strategy issues* for the upcoming planning stage of the *PPBES* cycle. It addresses a broad range of *corporate issues*, encompassing research, management and *operational* needs. As a result of this *issue's* breadth, both substantively and organizationally, there is a diverse group of intra- and extra-organizational parties, such as internal offices, programs, laboratories and constituents interested in the content of the memorandum. The *concerns and challenges* cited in this mock *issue* are: *corporate, strategic, research, management, operational, and political*.

A Migration Story

CONTEXT I: The NOAA line office of Program, Planning and Integration (PPI) drafted and shepherded the memorandum through NOAA's Executive Decision Process (EDP). PPI used NOAA's EDP for input, review and approval of the YSM. PPI circulated an initial draft of the YSM to all other line offices and goal teams for commentary. The NOC had a meeting coinciding with the timeframe of the initial circulation of the draft.

SENSEMAKING I: The NOC had a discussion in which a *multi-hatter* stated that, "[t]he Councils have not specifically been asked for their input before this year's YSM is drafted..." perhaps we should consider contributing to the YSM. Council members pursued a general discussion on the opportunity to contribute to the upcoming YSM. A general consensus was achieved, as participants asserted that, 'yes, this is within our role as *strategic advisors* on ocean policy. This is what we should be doing.' In fact, "...since this is a milestone, the NOC should determine if their recommended changes or priorities are included in the YSM." In concordance with these sentiments, another *multi-hatter* asserts that we need to recognize "that the President's 2008 budget request has changed the starting points for many projects and identified new priorities and timelines. [The YSM presents]... an opportunity for the NOC to get involved and discuss these implications at the start of planning."

OUTPUT I: The resulting *action* from the NOC meeting is captured in the following quote: "NOC staff will set up interviews with the principals to gather feedback on the YSM. Advisory members of the NOC are welcome to submit input via email. Staff will compile responses and send back to members for final discussion at the March meeting."

CONTEXT II: PPI integrated comments it received from goal teams and the other line offices into an initial draft and then officially informed the councils that they could provide

feedback on the next draft. PPI asked the councils to review the consolidated goal team input received during their annual YSM meeting. As a result, the NOC and the RC were asked to take a broad perspective and identify what changes were needed to best direct our ocean and research investments, respectively, in the fiscal year 2010 process. The RC then used part of a meeting to discuss its possible response to the YSM.

SENSEMAKING II: The council lead asserts that the RC “....needs to respond to the YSM. As this is an opportunity to be uniquely focused on research, use the Ocean Research Priorities Plan, Climate Change Science Program, etc....” Another member – a *multi-hatter* – responds by noting, this is one of those times when “‘*Many-bites-of-the-apple*’ is relevant...with... [this issue as] I think we should focus on filling gaps and reinforcing contributions from the goals and lines.” The lead of the council responds by stating, “Well, I think we need to [f]rame what is our job from a research perspective. What is it that is most relevant to change or direct NOAA’s [i.e., *corporate*] research investment in fiscal year 2010-2014? What can we bring to planning that reflects what is happening in the research community?”

OUTPUT II: The RC issues the following *actions*: “Council members will review the 28 page YSM comments and provide feedback to the executive secretary. Bob will task the Science Committee to provide specific feedback on the YSM to the executive secretary. In time, the Research Council will provide one-page feedback on the YSM to PPI.”

CONTEXT III: The NOC meets to discuss member feedback on the YSM and *drivers* in order to provide feedback on the latest draft of the YSM.

SENSEMAKING III: In considering NOC contributions to the YSM, the council decides to “[d]iscuss external *drivers* that could have a potential impact on NOAA’s ocean

mission and demand for products and services for fiscal year 2010-2014 as a basis to identify NOC priorities for the YSM.” The PPI representative, also a *multi-hatter*, states that the councils, goal teams and line offices have been asked to “...look at what the external driving forces are, how priorities should be adjusted and what investment questions need to be asked.” The PPI representative goes on to state that the NOC “input... should focus on framing the investment questions.” The council’s chairperson led the council in a review of the feedback and a discussion of the various *drivers* that should be brought out in their contributions to the YSM (i.e., the implementation of the National Water Quality Monitoring Network, the Ocean Research Priorities Plan, pending legislation for the 110th Congress and international *drivers*). A *multi-hatter* asserted that, “NOAA should ask for support for the Ocean Research Priorities Plan (created by the National Science and Technology Council in the Executive Branch of the Federal Government), as we carry our part of the interagency agreement. We need to carry the funds in 2008 forward and expand them to a certain degree. This is a real opportunity to engage the whole ocean community. The more we can show this is in our *strategic* plan, the better. NOAA will have to anticipate requirements from legislation that will be introduced during the 110th Congress. This legislation could be implemented before 2010; however, requirements that need to be funded could happen during this funding cycle.”

OUTPUT III: The following *action* was issued by the NOC at the end of its YSM discussion: “Staff will revise the NOC comments based on the conversations at the meeting. Members will review the revised draft and send comments by COB March 14. NOC staff will submit the final version of the comments along with a list of external *drivers* to PPI by March 19.”

CONTEXT IV: During its last meeting, the RC decided to review comments made by council members on the YSM, and to finalize these comments.

SENSEMAKING IV: At the RC meeting, the council lead began its discussion on the draft comments for the AGM. The RC's leader asserted that, "[t]here is an argument on the table that we have already captured your concern in the preface of the five-Year Research Plan. We could incorporate the preface with its six guiding questions into the YSM [(I amended this quote)]. I suggest we look closely at the issues and priorities [in the five-year Research Plan] and make sure there is some internal consistency with what we have provided already. Not just what we're going to do, but the why we're going to do it. The council is a good body to do this."

OUTPUT IV: The RC decides to start with the six questions in the PPI table and show connectivity with some areas of the existing YSM.

CONTEXT V: PPI incorporates all the comments from the councils into a new draft for a joint meeting of the *NEP/NEC*. As this meeting and the decision involved represent a major *PPBES* milestone (i.e., approval of corporate planning guidance for the fiscal year 2010-2014 cycle), NOAA's leadership determined that it was appropriate to have a joint meeting of the Agency's highest leaders, the members of the *NEC* and *NEP*.

SENSEMAKING V: The Admiral introduces the PPI representative who will present the *issues* that comprise the AGM. The PPI representative asserts that, "...We have adapted the [YSM creation] process each year in order to improve it. It's always been a highly collaborative development process now that we take advantage of comments from both outside and inside the Agency to change the YSM. This is a *decision* brief and we have two *issues* to decide: 1) Do we approve the changes made to the YSM from last year?, and 2) Can we determine the strategic investment questions we want answered at the end of planning (#1-6)?. We believe we should

respond to external trends (i.e., changes/ *drivers*), and thus accept the changes to the YSM as they are in response to *external trends*. With regard to the strategic investment questions, should we focus on questions #1-4 and provide information on #5-6, should we focus on questions #1-4, or should we focus on the two highest ranking strategic questions #2-4.” The *NEP/NEC* had an extended ‘back and forth’ between principal members and a series of *drivers* were brought to the fore. Members questioned if particular *drivers* (new/ adjusted legislation, societal trends, climatic trends) were adequately accounted for in the YSM. In so doing, members asked questions such as “have we considered the revisions to the ‘x’ act and accounted for these?” The council addressed many concerns and made minor changes. The council members, led by the undersecretary, determined that indeed, with minor changes, the *strategic* questions presented were the right ones.

OUTPUT V: The following *actions* and *decisions* were produced by the joint *NEP/NEC* session: “The *NEP/NEC* approved the priorities and focus areas in the proposed AGM for fiscal year 2010-2014 and provided a three-day comment period for technical accuracy and clarity in the overall YSM text. The *NEP/NEC* approved alternative #2 for strategic investment questions with suggested changes resulting from this brief.”

Migration Story Analysis

The migration story showed that sensemaking is used to narrow the issue, focus the attention of the council on particular cues, and allow the council to move forward and take action (Matlis 2005; James 1969). For example, on page 105 the NOC engaged sensemaking in determining how it should address the AGM. Its approach to the AGM initially is uncertain, as indicated in the *multi-hatters’* commentary — stated that the councils have not been asked for their input — and by the council members’ deliberation over the issue. A sensible environment

is enacted when the council decides that a contribution to the AGM would be within its role. The *multi-hatters* moved the council forward and enabled action by asserting that the NOC needed to be concerned with changes in starting points for many projects based on the fiscal year 2008 budget request. While sensemaking did occur throughout the migration story, the process is characterized by variation. Sensemaking involves participation from some members more than others, is engaged by some forums more than others and takes place to varying degrees as it unfolds over time. I discuss these points below and relate them to the migration story and the literature.

My findings are in line with both Sayer (2000) and Hedstrom and Swedberg. I posit that it is the *leaders* and the senior *multi-hatters* who use their power to interpret *issues* to justify a course of action. This is done via references to socially approved features in their environment — including symbols, norms and social structures (e.g., *issues*, *constituents*, *drivers*) — that call to abide by roles, rules and authority (e.g., NOAA’s *mission*, the council’s role, action in the executive branch) (Weick 1995). In this act of sensemaking, the *leader* and senior *multi-hatter* determine the *actions* and *decisions* in a process of executive-driven decision-making. The power of *leaders* and *multi-hatters* lies in the various characteristics or attributes they wield including their status, knowledge of *process*, and adept engagement of *concerns and challenges* via *good stories*. This finding is supported by Smirich and Morgan (1982), who indicate that power lies in the leading of sensemaking or sensegiving. The powerful individuals who can direct attention to some cues and not others can direct the sense that is made. Matlis and Lawrence (2007) echo this interpretation in their recent work on sensemaking when they talk about stakeholder (as opposed to group leader) sensegiving and provide an insightful description of what comprises a good sensegiver. Matlis and Lawrence (2007:79) note, “... that the ability

to engage in sensegiving goes beyond simply telling a good story: for stakeholders to engage in sensegiving, they must tell sensible stories (drawing on relevant expertise) at the right time and place (opportunity) and occupy a social position that leads others to listen (legitimacy).” While *leaders* and *multi-hatters* rely on similar attributes to wield their power, it is the *leaders* who enjoy more power by virtue of their officially sanctioned roles. In fact, it is the *leaders* in NOAA’s two highest forums that wield the most power.

The migration story also showed how the NOC and RC engage sensemaking to a greater extent than the other two councils, since the corresponding meeting text indicated that these two councils engaged all three of the activity-based properties of sensemaking. The reason the councils differed in their engagement of sensemaking is most likely related to the different roles the four councils fulfill. The NOC and RC are inherently exploratory councils, as they are supposed to explore and define relatively novel issues in some cases and in others are older issues with novel aspects. By contrast, the NEP and NEC tend to engage issues that have been refined by lower councils, line offices and staff offices. As a result, the lower councils have more opportunity to enact environments and select and interpret cues. In fact, the broad charters that characterize the roles of the two lower councils give them greater leeway in enacting environments, thus providing more of an opportunity for sensemaking.

Sensemaking tends to carry on throughout the life cycle of the *issue* and seems to be an ongoing process, as suggested by Weick. In the EDP, sensemaking does occur over time in an iterative fashion (Gioia and Chittipeddi 1991), within groups and between groups in the Agency. Because sensemaking is an organic social process, its progress tends to fluctuate over time. Hence, at a given time a number of properties may be present, while at other times only one property is present.

CHAPTER 9

CONCLUSION

In this study I sought to gain an understanding of executive decision-making at NOAA through the observation of NOAA's deliberative forums, and through interviews with NOAA executives and managers. I also attempted to identify the mechanisms behind decision making. In addition, I have tried to understand how the patterns of decision-making at NOAA compare to the findings of other scholars in organizational studies, and particularly those of organizational anthropology. Finally, I have sought to identify information that could contribute to the more effective working of NOAA, and possibly other federal agencies. I conclude with a discussion of my findings and suggest potential avenues for future research.

The Englishman, Sir Arthur Helps, a 19th Century clerk of the Privy Council, once wrote, “[n]o man, who has not sat in the assemblies of men can know the light, odd, and uncertain ways in which decisions are arrived at by these bodies (Browne 1993: 3).” I have sat in and observed more than 30 meetings, and have also completed 25 interviews with many of NOAA’s headquarter leadership. However, as discussed in Chapter 5, my view of executive decision-making is constrained because of my lack of access to communications occurring outside the meetings I was permitted to attend, and the leadership’s need for privacy when discussing potentially sensitive information. So, it is important to note that I was not able to adequately assess all facets of executive decision-making at NOAA. Doing so is most likely an impossible task for one researcher who has limited access and limited resources. This study once again highlights the difficulty of meeting Nader’s (1999 [1969]) suggestion to “study up”.

This chapter is divided into three sections. The first section provides an interpretation of how executive decision-making works at NOAA – ‘The Mechanisms Behind Decision-making’. The second section addresses specific theoretical and substantive contributions of my dissertation – ‘Executive Decision-making at NOAA and Cultural Theory’. The third section, ‘Applications for NOAA’, provides some suggestions for improving the way NOAA’s leadership councils currently conduct their business and the business processes and structures within which the activities of these councils are embedded. The final two sections identify potential subject areas for ‘Future Research’, and lessons for ‘Federal Agencies’.

The Mechanisms behind Decision-making

Executive *Decision-making* at NOAA is constrained by structural forces, focused by the Agency’s substantive emphasis and organization, and directed by senior *multi-hatters* and *leaders*. The United States system of democratic governance, the branches of federal government (i.e., legislative, executive and judicial), NOAA’s place within the executive branch and the Department of Commerce all serve to constrain the focus of decision-making at NOAA. As the *impetuses* indicated, NOAA serves a diversity of interests with the ultimate goal of promoting healthy commerce. The Agency’s five-part mission and its organization (e.g., ecosystems, coasts, weather, and line offices) further constrain executive decision-making. Lastly, human actors move the levers of decision-making in the Agency. More specifically, I suggest that it is the *leaders* and the senior *multi-hatters* who use their power to interpret *impetuses* and related *issues*. In so doing, *leaders* and senior *multi-hatters* determine the course of an *issue*, and thus the resulting *actions* and *decisions* in a process of executive-driven decision-making. The power of *leaders* and *multi-hatters* lies in the various characteristics or attributes they wield, including their knowledge of *process*, expertise and status. While *leaders*

and senior *multi-hatters* rely on similar attributes to wield their power, it is the *leaders* who possess more power by virtue of their officially sanctioned role. In fact, it is the *leaders* in NOAA's two highest forums that wield the most power.

It should not be surprising that the *leaders* played significant roles in the decision-making process, since the rules for operation for each forum state that the forum *leaders* have fifty-one percent of the vote. What is significant and unexpected is the role and influence of the senior *multi-hatters*. These *multi-hatters*, particularly those serving on the lower level forums, used their access to information from important extra- and intra-organizational forums, knowledge of governmental and organizational processes, as well as their expertise and status to strongly influence forum activities. For offices and individuals who do not have access to NOAA's leaders, but who seek to influence the direction of the Agency, communication with a senior *multi-hatter* appears to be an effective means of doing this.

Executive Decision-making at NOAA and Cultural Theory

How is Executive Decision-making at NOAA Unique?

Ostensibly in group decision-making (e.g., a group of friends deciding where to go to dinner, or a group of mid-level managers determining operational procedures at Microsoft) individuals will represent one interest, which in many situations is determined by the individual's program/office/affiliation's goals. NOAA's executive decision-makers (i.e., specifically members of the NEC and NEP) represent two or three sets of concerns, depending on the decision scenario: their individual interests, their office affiliation and their corporate affiliation. In turn, these three sets of general interests are frequently comprised of many different interests. On many occasions, two or more of an executive's sets of concerns could be in agreement. Alternatively, sometimes an executive is charged with representing a set of diverse and

potentially competing interests. An example of these competing interests was described in the ethnographic sketch of the NOAA Fisheries Service. The burden (i.e., need to satisfy many interests) placed on individual executives is compounded when these individuals unite as council members, as NOAA's executive councils are expected to recognize a corporate agenda by balancing all or many of the Agency's interests.

While other agencies have several major divisions or line offices, NOAA is unusual in that five of its six line offices have been in existence, in some other form, for a century or more, and have to a varying extent, distinct cultural traditions. These cultural traditions represent the formal, and perhaps more importantly, the informal structures, relations and beliefs that characterize these line offices. So, NOAA's executives must be sensitive to the entrenched cultural phenomena that are reflected in the beliefs, values, behaviors and activities of the Agency's various sub-cultural milieus, such as those found in its working groups, line offices, and executive councils. In addition, in describing the ideal role of NOAA's executive council members, one executive asserted that NOAA's executives should be representing both their corporate and their affiliated line office interests on the issues that come before them. The member stated, "[I] think that the NEP and the NEC briefings ought to be structured in a way that what you are really trying to get out of it is the insight andthe perspective of the member that is there, that is bringing both a combination of their corporate stovepipe issues, if you would, but also, hopefully, the broader NOAA perspective." NOAA's leadership has, for some time, attempted to integrate the planning and operational activities of its line offices. Executive decision-making at NOAA is characterized by a tension between line office interests and corporate interests.

What is the Significance of Sensemaking in the Context of Executive Decision-making at NOAA?

The significance of sensemaking lies in the way that particular cultural preferences are emphasized by multi-hatters and leaders and promoted over others. Sensemaking occurs in those situations in which council members perceive increased ambiguity in their role and/or objective, and, in which there is more discretion or leeway in determining the nature of their products and there is a central concern, or possibly more than one central concern. Situations provide openings for leaders and multi-hatters to act as sense-givers.

How Might the Absence of Leadership or Multi-hatters Change the Outcome of the Decision-making Process?

This did not happen during the time I carried out my observations because the composition of the councils I studied always included leaders and multi-hatters. All councils have a designated leader, which is spelled out in their charter. Because all of the NOAA councils are corporate entities, they are bound to have multi-hatters on them. With this noted, if there was a hypothetical scenario in which leaders and multi-hatters were removed, or their powers were constrained, there would be heightened ambiguity. In this scenario, I can imagine one of two scenarios occurring. 1) If there were members of the dominant sub-culture (the Administrator's sub-culture) present, it is probable that they would lead sensemaking as sensegivers, and make sense from their cultural perspective. 2) If there were a number of competing sub-cultures present and no dominant administrator's sub-culture, it is possible that no *actions* or *decisions* would be made and the discussion would dissolve into several different discussions with no central force bringing the council together. Each participant's own sub-cultural or personal agenda would compete with the others. In-fighting could dominate relations, ultimately stalling progress.

How Do Observations at NOAA Relate to Results from Studies of other Agencies?

My observations of NOAA's headquarters and its executive decision-making can be related to findings from other studies. Insights from my research on NOAA's subcultures, the role that cultural knowledge plays in the organization, the existence of cultural divides and the legacy of organizational change, has parallels in the findings in related works by Fiske (1994); Stull et al. (1986); Stull and Mitchell (1988); and Cash et al. (2002).

Fiske's (1994) work emphasized the multi-cultural dimensions of bureaucratic life. In particular, she described a number of subcultures that typically arise in agency settings. She emphasized the significance of recognizing organizations as containers of sub-cultures. She also revealed the role and significance of particular cultural knowledge, such as pan-bureaucratic culture. Her findings provide a heuristic for understanding NOAA as an agency that has complex cultural phenomena – Fiske's "layers and loci" – in the form of line offices, executive culture, headquarter's culture, etc. Perhaps Fiske's most important contribution to my work is in understanding the role and place of senior multi-hatters and leaders. As I noted earlier, these individuals have particular attributes that enable them to operate successfully, including knowledge of process, expertise and status. Their knowledge of process is cultural knowledge and can be understood through Fiske's concept of pan-bureaucratic culture. Fiske's (1994: 98) description of pan-bureaucratic culture clarifies the role of knowledge of process. She notes,

[p]an-bureaucratic norms, knowledge and behavior are understandings and beliefs that allow negotiations to occur, interagency work to proceed, and underlie the assumptions and values among upper GS-level staffer personnel and operating managers. ... These belief systems are a locus of culture... threads of understandings about what can and cannot be said, modes of operating, and about one's position in the organizations that are

pan-bureaucratic. [These norms encompass, assumptions about interrelationships between political appointees and civil servants, the relationship between ambiguity and managerial flexibility, the role of concurrences and its corollary of asking for forgiveness after action,] ...interpreting status and ranking systems, common language systems, and the symbolism of delegating authority and responsibility.

My findings regarding the powers of senior multi-hatters are an instance of what Fiske (1994) describes.

Donald Stull, Steven Maynard-Moody, and Jerry Mitchell (1988) used a symbolic perspective in analyzing the reorganization of a state-level bureaucracy. They report on two key tensions or themes that resonate in all bureaucracies -- the need for both stability and change, and the need to balance the forces of accountability and expertise. In discussing stability and change, Stull, et al. (1988) note that stability is an important characteristic of a healthy organization; however they point out that change is also a necessary ingredient to insure the long-term health and adaptability of an agency. These researchers argue that rituals, including reorganizations, allow for the reassessment of cultural problems. Re-organizations provide “mechanisms to interpret ambiguous events and to provide meaning and direction for participants” (Daft and Weick 1984 as cited by Stull, Maynard-Moody, and Mitchell 1988). Re-organizations as “... rituals temporarily jar group attention from the routine and force the reassessment of endemic cultural problems”. Many of my observations were conducted during an ongoing re-organizational effort by Vice Admiral Lautenbacher’s administration, including the installment of the Executive Decision Process (EDP), of the Planning, Programming, the Budgeting and Execution System (PPBES), and the matrix organizational structure. As was evident in the comments of upper level program managers who were long time NOAA employees regarding the EDP and the PPBES (i.e., “...unless it is something the Admiral brought in...” or “they didn’t pay attention to the feedback we gave them on PPBES, it wasn’t right for all of NOAA”). This interpretation is in line with Weick’s process view of organizations. That is, organizations

are not static entities but are comprised, reproduced and altered by ongoing social processes. Reorganizations are part of an ongoing stream of processes and events. In this sense reorganizations are not complete after new organizational charts, or new offices are created, rather they are embodied in ongoing processes and events that continuously reverberate throughout the social field, and become the seeds or impetus for the processes and events that follow.

Cash et al.'s (2002) work highlights the importance of cultural divides inherent in today's natural resource management agencies and in the organizational fields they inhabit. These gaps between boundaries are often sociocultural in nature and rooted in the patterned interactions, beliefs and values of the organization's workforce. Cash et al. (2002: 15-7) identifies a number of organizational structures and strategies that they consider to be important for effectively managing boundaries, including mediation, translation, cultural brokerage, and accountability. They note that actors in a boundary organization must be accountable to their institution and corresponding constituents. Credible individuals can play significant roles by acting as social bridges or liaisons between scientists and decision-makers, and are skilled translators who can converse in multiple languages and mitigate differences in jargon, language and interpretation. This skill set seems to be similar to that held by senior multi-hatters who are good "story tellers", and by their very nature have had a multitude of professional experiences as scientists, managers, and executives. This observation and the preceding suggestions resonate with one of Gregory's findings. Gregory (1983: 373) asserted that, individuals who engaged in two or more occupational communities over the course of their career were frequently "adept at cross-cultural 'mediation' using their insights" and had the ability to act as a cultural broker between occupational communities facilitating communication and mitigating potential points of conflict.

In turn, it seems that good stories are in essence culturally appropriate stories. During the period of my research at NOAA *good stories* were those stories that rang true to the values of NOAA's leadership at the time (e.g., accountability, societal benefits, mission related). That is, *good stories*, particularly at the highest councils, were those that were articulated within the beliefs and values of the dominant subculture.

Applications for NOAA: Problems, Strategies and Techniques

Through the course of my research I identified problem areas related to NOAA's decision-making processes. These insights stem from individual critiques of participants as well as repeated observations. In the following section I identify some of the tensions, ambiguities and inconsistencies that were revealed during my research and provide potential strategies and perspectives for addressing them.

Two significant tensions involved representation, and adequate or appropriate information. Concerns regarding adequate representation centered on a tension council members felt between the responsibility of representing one's office or being accountable to the entire agency. Because all four of the councils were created as corporate bodies and comprised of line office and staff office representatives, such a tension is, for the most part, expected. Observations revealed that members had difficulty discerning when it was appropriate to engage a corporate or an office perspective. Some members were concerned with over stepping boundaries when engaging a corporate perspective in a council meeting, as they did not want to "tread" on someone else's turf. Other members were not always sure when it was appropriate to engage a corporate perspective or an office perspective. Another side of this tension surrounding representation manifests when a line office issue is treated as a corporate issue because of its prominence, for example, and is engaged by a council. Some of these issues are highly technical

in nature and thus understood only by the affiliated line office representative. As a result, input from other members may be well intended but possibly naïve and potentially detrimental to an effective resolution. In turn, a view that is removed from an *issue* may be valuable as it could provide a fresh, insightful or ‘out of the box’ approach to an *issue*.

One strategy that NOAA’s top leaders might use to ease the tension of representation is to openly recognize it as a challenge for participants in corporate councils and to explicitly state that frank input is desired. It would probably be reassuring for participants if the leaders of the councils stated that treading on someone else’s turf is, at times, expected and okay. In turn, technical requirements and related knowledge should be cautiously privileged. That is, technical requirements and primary party interests should be given due consideration and respect, as the failure to meet requirements (i.e., technical and related statutory requirements) can have a severe impact on the Agency and its constituents. However, the effort to insure the consideration of the interests of primary parties should not preclude, trump or stymie input from members who lack the relevant technical knowledge and/ or represent an uninvolved office. One strategy that might mitigate this tension may be for council members to offer both a *corporate* perspective and an office perspective on all issues, or at least on those issues that are deemed especially challenging. Another strategy to insure that individual participants are able to contribute without concern or fear of repercussion may be to allow anonymous input.

Tensions with information centered on the amount, presentation and focus of the information. This tension was frequently apparent at NEP meetings and can be understood as the tension between the executive summary and “getting it right”. This is a manifestation of the science-executive/decision-making gap. Presenters were asked to follow a specific format intended to clearly and concisely convey key points for an issue. Some participants asserted that

the required format does not allow for all of the relevant information to be relayed. Along these lines, one participant noted that standardizing the format for presentations, via the use of Microsoft PowerPoint® is not always appropriate since the NEC and NEP engage diverse issues with varying amounts and types of information. In contrast, another participant suggested that some presentations contained too much information, were not organized effectively and stated that some presenters needed to “bring out the most relevant wheat... from the chaff.” As discussed by Cash et al. (2002) this tension is reflective of a widely recognized communicational problem between the substantive realms of science and policy, and is frequently expressed by references to the work of C.P. Snow (1959). He is recognized for identifying a communicational gap between scholars in the humanities and those in the sciences. A similar divide was later recognized between scientists and policy-makers, as they communicate in different ways, and thus often fail to communicate effectively with each other (Bernard 1974; Rich 1991). While Snow’s argument is often portrayed in simplistic and dualistic ways, it does offer useful insight into this communicational problem. This position asserts that those in the policy arena are culturally distinct from those in the sciences. This is significant because it affects their values and beliefs and correspondingly, the way they communicate (i.e., their objective, means, and content). There are several strategies that might be used to close this communicational divide. For example, outreach and education efforts centered on translating science — whether projects, programs, requirements, acquisitions — into audience-appropriate rationale (i.e., *good stories*) could be established for NOAA’s upper level managers, junior executives and support staff. The highest councils also might build more flexibility into their presentation requirements, to accommodate the diverse body of information these councils address.

Another critique of NOAA's decision-making process was evident in the theme of ambiguity. Interestingly, many of my interview participants were not able to explicitly identify NOAA's Executive Decision Process. Although most of these individuals were aware of the general upward flow of issues and the roles of NOAA's corporate councils, they did not know that the EDP was the official organizational decision-making process within which these councils worked. In turn, several participants cited problems with ambiguity in the roles of the councils and in requests emanating from the NEC and NEP. Several participants expressed disillusionment with a lack of transparency in the decision-making processes of the NEC and NEP (e.g., "no explicit feedback loop to let us know how the NEC/ NEP came to a decision"). One potential strategy for heightening clarity within and around the decision-making process may be to engage an outreach effort explaining the workings of the EDP to all staff including NOAA's executives. Another effort may be to insure the clear delineation of the roles of individual councils. For example, it might be beneficial to explicitly state that the NOC and RC are strategic and advisory in nature with emphasis on ocean policy and NOAA's research portfolio, respectively, and thus their decisions generally result in recommendations.

In order to increase the confidence of NOAA's workforce in its top executives and heighten the organizational awareness of NOAA's workforce, another tactic might involve the dissemination of NEC/ NEP meeting minutes to lower level executives and middle management. In remedying the issue of ambiguous requests from NOAA's leadership, the NEC and the NEP might ensure that requests are documented in detail. With this noted, I would be remiss not to recognize the insights of Fiske (1994) who explains that ambiguity is part of the bureaucratic environment and that successful bureaucrats learn to effectively navigate in this environment. It

might be useful for NOAA to teach this lesson to its leadership and perhaps more importantly to its leaders in waiting.

Another issue that came to the fore was a concern for discontinuity with regard to PPBES, as some participants cited a desire for more continuity in the PPBES process from year to year. While continuity is important and can foster efficiency, NOAA's executives and all employees must be made aware that the Agency is, as are all organizations, a dynamic social system that changes as society changes. In keeping with Cash et al. (2002), Weick (1979; 1995; 2001), and the other process literature noted in chapter two, organizations are dynamic and change is inevitable. In fact, federal agencies are especially vulnerable to societal changes as their leadership is often determined by appointment for discrete political cycles. At one meeting of the NEC and NEP, a member in discussing the business processes instituted under the Lautenbacher administration, noted that these processes are open to constant refinement as the Agency exists within a fluid and changing environment and must continue to change and develop in order to be effective in carrying out its mission. With this noted, there is no easy way to bring about organizational change. Participants asserted that a policy of transparency, openness and substantive collaboration between all corporate stakeholders — i.e., top executives, middle managers and rank and file employees — would go a long way toward successfully implementing new policies.

It is difficult to determine if the Lautenbacher reorganization has created a faster, more efficient and more transparent corporate decision process. I suspect that it has not as the reorganization in the eyes of many headquarters' employees has added layers of bureaucratic process to the Agency's workings. In some respects this increase in process may very well act as a disincentive to those middle managers and lower level employees who were supposed to be

able to use the EDP to bring their suggestions and issues to the Agency's leadership. As they may be overwhelmed and discouraged by the *process* and believe that the prospect for a successful and productive review of their suggestions and issues is low. I should note that participants also recognized positive aspects of the PPBES and the associated matrix organization, as many employees (of varied ranks) believe that these organizational structures have fostered more robust relationships between the Agency's line offices.

Future Research

The results as well as the shortcomings of this research project suggest several avenues for future research including investigations into 1) the extra-organizational environment or structures that influence organizational sensemaking, 2) the retrospective nature of sensemaking, 3) organizational *stories*, and 4) a closer examination of the role of top leaders in executive decision-making.

My study enhanced understanding of the structure, process and content that characterize executive decision-making at NOAA. A study of the extra-organizational environment aimed at identifying how drivers and trends (e.g., societal, political, scientific) are placed on the Agency's agenda would provide a more complete picture of the decision-making process, as well as insights into how agendas are set. This line of inquiry could include an investigation into organizational stories. Stories are thought to provide a window into the significant values of the organization (Martin, Feldman, Hatch and Sitkin 1983). As NOAA's stories are driven in part by the interests of relevant audiences, it would be useful to identify which audiences (e.g., commercial fishers, environmentalists, congressional representatives) are listened to and which stories gain traction. Specifically, why are some audiences responded to, while others are not? Why are some stories more effective than others? In studying stories, it might be useful to study

a cross-section of ‘good’ and ‘bad’ stories to gain a comprehensive understanding of what makes them good or bad (Soin and Scheytt 2006).

Information on the rhetorical content and structure of stories could be formally passed on to NOAA’s headquarters employees to foster the portrayal of good stories. This information could be disseminated via workshops, brown bag lunches or training programs such as the Leadership Competencies Development Program. Good storytelling skill — providing strong rationale aligned with the Agency’s mission and interests of the intended audience — is essential for effective communication within and outside the Agency. This skill is undoubtedly a reflection of a senior bureaucrat’s command of cultural knowledge. Cultural knowledge is typically acquired through enculturation, a socio-cultural process that takes place through personal experience over long periods of time. With this noted, applied anthropologists in medical anthropology and educational anthropology have made careers out of teaching cultural knowledge to western professionals so that they may do their jobs better. It is reasonable to believe that NOAA could teach personnel the composition or components of a good story.

While the latter two suggestions for research involve applied research, a more theoretical research avenue might lie in the understanding of sensemaking’s retrospective nature. The relevant literature seems to lack any investigation into the retrospective aspects of sensemaking. If retrospection is taken to the extreme, sensemaking may be understood as a political tactic to dress past decisions and actions in current rationales. An interesting study aimed at gaining an enhanced understanding of the retrospective nature of sensemaking would involve detailed tracking of a decision-making process over time. This kind of investigation would be challenging, as the cost in resources (i.e., time, human power, and access) would be high. The

project would require a longitudinal study that could capture the organic development of a decision.

Perhaps the greatest limitation in my research was my inability to closely assess leadership at the highest levels of the organization and the role of top leaders in the decision-making process. An ideal research project would enable a researcher to closely observe the daily interactions and activities of NOAA's top executives for extended periods of time in an unencumbered fashion. I have no doubt that this limited my findings. As discussed in my methods chapter, studying elites presents many hurdles (Hertz and Imber 1995, Liebow 1995, Marshall 1984, Nader 1999[1969], Womack 1995). One potentially fruitful study might involve the ethnographic shadowing of top executives at NOAA or another federal agency. This would be a challenging endeavor but has the potential to provide significant insight into the decision-making process. Lines of inquiry might include identifying the role that collaboration/consensus and individual interests play in decision-making, or gaining an understanding of the circumstances when leaders are likely to rely heavily on advisory input and when they tend to 'go it alone'. The potential knowledge gained could be useful to researchers and scholars interested in decision-making, organizations and leadership.

Federal Agencies: Lessons Learned

Though my research was centered on one agency, it did offer insights that may aid other governmental agencies in effectively meeting their mandated missions. In this final section, I offer several brief commentaries on the need for robust cross-divisional collaboration, and the utility and assessment of corporate councils.

NOAA's unusual history — arising from three distinct organizations — has fostered an organization that is inclined toward divisional struggles. In turn, cross-organizational

collaboration and cooperation is perhaps nowhere more important than within governmental agencies, which generally are characterized by severely limited resources, and thus need to act corporately to maximize the function of each penny they spend. In many respects, the effort of NOAA's leadership toward fostering a corporate culture, embodied in the EDP and its council and matrix systems, is exemplary. Cross-divisional cooperation is not only important for its contribution to efficiency and synergy, but also for its potential contribution toward tackling the cross-boundary challenges of our day. Scientists, environmental managers and related professionals (Cash et al. 2002; Kohm and Franklin 1997; Ludwig, Mangel, and Haddad 2001) assert that today's natural resource problems must be approached from a holistic, interdisciplinary, cross-boundary perspective, as these problems stem from multi-causal pathways that have no boundaries — e.g., geographic, atmospheric, disciplinary, and jurisdictional — and thus need such an approach to be resolved. Other federal agencies, especially those involved with natural resource management, might find it useful to adopt some of the structures or processes used by NOAA to foster cross-divisional cooperation and collaboration.

A corporate council system can be a valuable asset to any agency, since it can be used to divide the burden of strategic and operational labor across executives and bring focused effort to areas or topics that are particularly important to the entire organization. In turn, corporate councils need to have a wide enough focus to be substantive, but also narrow enough to be tractable. Decisional power needs to be explicitly identified (i.e., the who, when, what, and why of decisions). It also may be useful to devolve actionable decision-making power on relevant issues to lower councils — because they wield the organization's expertise in their individual focus areas and their involvement in decision-making would lighten the workload of the

Agency's highest councils. It also is useful to recognize that, by their very nature, councils are centered on unique areas of interest to the Agency, thus head-to-head comparisons between councils may not be an accurate measure of success as their objectives and related tasks may be quite different.

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APPENDIX A.A

QUOTES ENGAGING THE CONCEPT OF CORPORATE WITH THE TERMS, CORPORATE, NOAA APPROACH, AND ONE NOAA

Corporate is the first thing. I don't think decisions in the NEC -- I try not to [make decisions]... that are unique to my little office here.
Source – an interview with a member of the NEC Purpose, Context or Question – response to, “How would you characterize the decisions you make on the NEC?”
Right, and that is... when you look at the executive decision process, when the executives comes to the table it is very much line-oriented, organizationally-oriented, initially. It takes a long time for them to talk through and come to some agreement on what the best decision for the <i>corporation</i> is.
Source – an interview with a member of the NEP Purpose, Context or Question – offers a description of the working dynamics between members on the NEC and on the NEP
The [lower] councils, like the goals, are supposed to look across they are supposed to [look] more <i>corporately</i> .
Source – an interview with a transient participant in NEC, NEP and lower council meetings. Purpose, Context or Question – response to, “How does ... [specific reference to a <i>multi-hatter</i>] who sits on a lower council and the NEC or NEP act differently pending their role on a particular council
Well, you can take that a number of different angles but to me it's a structured process for getting <i>corporate</i> approval of any major policies or strategic or NOAA-wide management issues; so it's a mechanism. It's a decision making mechanism for NOAA as a whole and it's component pieces of the organization that provides a forum for collective decision making, things that relate to the interests of the organization as a whole.
Source – an interview with a NEP member Purpose, Context or Question – response to, ‘Have you heard of the executive decision process [EDP] at NOAA? [cross talking]... What does it mean to you?’
It might involve just one LO. But, if it's a big NOAA issue where NOAA <i>corporate</i> is going to be judged, I think the Admiral is looking for advice from a wider range of people. A good example is a lot of the satellite issues. NESDIS really runs the satellite program, and most of their requirements come from the Weather Service. But as a matter of fact, you know, its <i>corporate</i> NOAA whose reputation is on the line.... [with satellite issues]. And I think the Admiral is looking then for a little bit broader buy- in and a broader suite of advice to come into him.
Source – an interview with a NEC member Purpose, Context or Question – response to, “You had said that issues go to the NEC and NEP when a NOAA approach is called for. What did you mean?”
.... [B]ut the NOC is supposed to discuss what makes the most sense as an agency. And so I think actually, on the NOC when we did the IOOS stuff, it turned out that planning wasn't well-serving <i>corporate</i> NOAA, is the reason that another IOOS office got set up in NOS. And I think it's important for the NOC to keep on top of that to make sure IOOS doesn't serve just, just NOS but actually NOAA is.
Source – an interview with a NOC member Purpose, Context or Question – In asking the member about comments made by other members the respondent began to talk about the role of the NOC.

(Continued)

APPENDIX A.A (Continued)

....[W]e were doing a lot of effort to[to bring] *corporate* views [forth at] NOAA [for the advisory group] and then these people were going to the meetings of the advisory group and pretty much acting independent of that.

Source – an interview with a NEP member

Purpose, Context or Question – In asking the member about an issue related to external advisory group whose composition include some line office representatives as well as representatives from other agencies in the government the member responded with a critique of how the NOAA representatives have acted on this advisory group

I don't think alternative #2 is accurately phrased. Over three years ago we determine that leadership handles NOAA Corporate policy decisions and the LOs implement corporate decision-making.

Source – NEP meeting observations

Purpose, Context or Question – This comment was stated in response to deliberations on a potential operational policy. One of the suggested alternatives asserted that line offices would be responsible for their individual workforce policies. The member is responding to this

APPENDIX A.B

QUOTES ENGAGING THE CONCEPT OF STRATEGIC

<p>Purpose of <i>Strategic</i> Investment Questions: NOAA's AGM priorities raise a number of <i>strategic</i> investment questions that should be answered by the end of the planning phase, centering on</p> <ol style="list-style-type: none"> 1) Nature and magnitude of external demands, 2) NOAA's role and capacity to respond, 3) Implications for NOAA's functions. <p>The questions will frame the <i>strategic</i> portfolio analyses conducted by the Goal Teams. Planning will conclude with NEP and NEC decision briefings on those questions that have the largest bearing on NOAA's corporate priorities as a whole.</p> <p>Source – meeting document from a joint meeting of the NEC-NEP</p> <p>Purpose, Context or Question – strategic investment questions were used to focus NOAA's planning efforts for FY10 planning process</p>
<p>ACTION: The Research Council is to conduct a virtual brainstorming session and submit topics or concerns to the Executive Secretariat for the joint session with the SAB at the March 2007 SAB meeting. Due: January 3, 2006. Dr. Spinrad proposed the first brainstorming topic: Our Relationship with the External Research Community. Dr. Spinrad did not have preconceived notions on the specificity of this discussion, but indicated that a higher-level <i>strategic</i> discussion may be beneficial.</p> <p>Source – RC meeting document</p> <p>Purpose, Context or Question – this action was issued in preparation for a joint meeting of the NOAA Science Advisory Board (SAB) and the RC that was intended to align the efforts of these two bodies on topics relevant to both bodies interests</p>
<p>Well, you can take that a number of different angles but to me it's a structured process for getting corporate approval of any major policies or <i>strategic</i> or NOAA-wide management issues; so it's a mechanism. It's a decision making mechanism for NOAA as a whole and it's component pieces of the organization that provides a forum for collective decision making, things that relate to the interests of the organization as a whole.</p> <p>Source – interview with a NEP member</p> <p>Purpose, Context or Question – response to 'What is the Executive Decision Process?'</p>
<p>... it's sending important money out the door when we have so many <i>strategic</i> needs that we can't address. And are these good projects? Most of them probably are. Is it funding that achieves something? Sure, most of the money probably achieves something.</p> <p>Source – interview with a NEC member</p> <p>Purpose, Context or Question – response to 'What point were you making about 'x' project during NEC meeting?'</p>
<p>Persevering over time; broad enough to provide guidance for virtually everything the organization, corporate. ... Broad mission application, translatable, scalable down to the project level so that you can go from the big picture down to what you're going to do tomorrow if you got an additional dollar in your program. And, founded on some fundamental principles of the organization - mission, priorities. I would consider a discussion on balanced investments between extramural and intramural, strategic and the foundational principle is we need to preserve our laboratories and our FTEs. Thus, it is a <i>strategy</i> we have established upfront from tactics can then be derived.</p> <p>Source – interview with a RC member</p> <p>Purpose, Context or Question – response to 'You're hitting on another concept here, '<i>strategic</i>'. From your perspective and from the NOAA perspective, what does that mean?'</p>

(Continued)

APPENDIX A.B (Continued)

I believe you are identifying an overarching strategic issue that we need to deal with.
Source – meeting observations Purpose, Context or Question – a council lead’s response to a comment from another member.
We all love to make these wide supportive statements, such as ‘support <i>strategic</i> direction’, we currently are not doing this we need to. This is an issue for the NEC.
Source – meeting observations Purpose, Context or Question – a council lead’s response to comments made during a presentation.

APPENDIX A.C

QUOTES ENGAGING THE CONCEPT OF OPERATIONAL

NOAA-wide operating issues and policies
<p>Source – the official charter of the NEP</p> <p>Purpose, Context or Question – this quote describes the type of issues most associated with the workings of the NEP</p>
<p>For many administrative issues sure. For a lot of operational items, they stop at the NEP. They don't go anywhere.</p> <p>Source – an interview with a member of the NEC</p> <p>Purpose, Context or Question – the member is expressing where particularly types of decisions are made (i.e., in many instances final decisions on operational issues are made at the NEP)</p>
<p>We are an <i>operational</i> or scientific organization; this is not a research-oriented organization. We do research. We do research to support our operations, means we have a business; we have [5:00] products and services; we provide things at the end of it. So, there's an <i>operational</i> necessity to be able to do that, to execute, organize people, get them together, get the resources in place.</p> <p>Source – an interview with a member of the NEC</p> <p>Purpose, Context or Question – The member is offering a response to what <i>operational</i> (in the context of NOAA) means to him</p>
<p>The transition board has both <i>operational</i> and research interests represented.</p> <p>Source – observational notes taken at a RC meeting</p> <p>Purpose, Context or Question – the council was discussing the issue of “transitioning research to <i>operations</i>” as they were tasked to work with the transition board to determine a prioritized ranking for those projects that are deemed as ready to transition from research testing status to an <i>operational</i> status.</p>
<p>But we should not be investing in a research if it is not relevant to NOAA; and when it becomes something that could improve our <i>operations</i> or could inform us, we ought to move that to an <i>operational</i> status or stop investing in research that is no longer going to produce something and do something else with it.</p> <p>Source – interview with a member of the NEP</p> <p>Purpose, Context or Question – this quote was brought to the fore when this member was explaining one of their key concerns during the programming phase of PPBES</p>

APPENDIX A.D

QUOTES ENGAGING THE CONCEPT OF MISSION

<p>So I think the concern was that NOAA's view of <i>mission</i> priorities might be different from the NASA's. ... So I think she/he was basically just saying, "We have to stick to all of our <i>missions</i>, not just the ones that NASA's interested in."</p> <p>Source – interview with a NEC member Purpose, Context or Question – the member is responding to a question regarding a particular meeting interaction on a joint effort between NOAA and several other agencies, including NASA.</p>
<p>You know your mission and your <i>mission</i> goals drive your research. You know, we should never do research that is not going somehow to, you know, to forward our <i>mission</i>. On the other hand, our mission is broad enough that almost anything [can meet it]...</p> <p>Source – interview with a NEC member Purpose, Context or Question – in responding to a question on a particular communication exchange – distinguishing applied and basic research - during a meeting the member explains that NOAA's research and NOAA's mission should be aligned</p>
<p>Right. Are these programs central to NOAA's <i>mission</i> accomplishment? Are they reflective of the current leadership priorities, , I think, everyone would agree they are?</p> <p>Source – interview with a NEP member Purpose, Context or Question – in talking about a particular communication exchange during a meeting the member identifies the kinds of questions that should have been asked by NEP members but were not</p>
<p>...[T]here's a very pragmatic significance to that. If we cannot express what we do in terms of societal benefit, we will not succeed in getting the resources we need. If we talked about improving a non-hydrostatic model because it's really a fun thing to do, nobody will give us money for it. We have to tell our – [We]...have to convince the NOAA leadership, then we have to convince the Department of Commerce, then the Office of Management and Budget, and then Congress why improving a non-hydrostatic model may mean an enhanced capability to forecast a particular environmental process, to help Commerce and Transportation, to help ecosystem based management, to help forecast the weather - all of the <i>mission</i> issues that's the societal benefit. So there's an altruistic element to it; it's the right thing to do for society, and the tax payers are paying us to do things for society. And then there's a very, ah, parochial interest in it -- basis for it. And that is to get more resources.</p> <p>Source – interview with a NEC member Purpose, Context or Question – in discussing the importance of presenting societal benefits the member expresses that NOAA's mission is aimed at serving society as these tax payers are in essence consumers</p>
<p>But I feel like NOAA has prediction in this <i>mission</i>; there were predictions, and I do not know that another agency does, okay?</p> <p>Source – interview with a NOC member MC Purpose, Context or Question – in talking about a particular communication exchange in a meeting the member defends her position on issue by asserting that NOAA should be doing 'X' as it has prediction in its mission (i.e., 'X' is directly related to NOAA's mission)</p>
<p>The response to the NRC report needs to be practical and useful. The response should shift the dialogue to NOAA's mission. It is the NOAA responsibility to look at our mission and do that mission.</p> <p>Source – NOC meeting minutes Purpose, Context or Question – a member of the NOC states her/his opinion about how NOAA (led by the NOC and RC) should respond to an external review board's report</p>

APPENDIX A.E

QUOTES ENGAGING THE CONCEPT OF SOCIETAL BENEFITS

<p>And you're not going to be able to hold on to what you have if you cannot justify it in terms of a <i>benefit to the nation</i>.</p> <p>Source – interview with a member of the NEP BM Purpose, Context or Question – in discussing the concepts of a good story the member emphasizes the importance of explaining the societal benefit of a particular activity (e.g., project, program, acquisition).</p>
<p>So I end up spending a lot of my time convincing people that this will save lives or protect property, i.e. have <i>societal benefit</i>.</p> <p>Source – interview with a member of the NEC RS Purpose, Context or Question – the member is explaining the need to clearly and distinctly related specific societal benefits to a plan of action when discussing or explaining this to a constituent, member of congress, OMB representative, etc.</p>
<p>Just to make sure that we are performing the research that maintains the services and, in fact, looks towards the future services that we want to provide to the <i>American public</i>.</p> <p>Source – interview with a member of the RC RR Purpose, Context or Question – this member touches on societal benefits in explaining NOAA's operational responsibilities (i.e., that the agency is responsible for delivering specific goods and services to the American public)</p>
<p>But, generally speaking, the planning is not -- you don't spend a lot of time talking about the budget constraints. You try to spend time more on the concepts and the value and how you would really do it and what it means relating to <i>societal benefits</i>, obviously.</p> <p>Source – interview with a member of the NEC LC Purpose, Context or Question – the member is referring to the substantive focus of the NEC during the planning cycle of PPBES</p>
<p>Another comment was that the document is not clear enough for the general public and remains primarily an internal document. Reworking the Research Plan as a more concise presentation around the concept of <i>societal needs</i> would make the plan more accessible and useful as a marketing tool. The Research Council Executive Secretariat is exploring ways to incorporate an executive summary to accomplish this goal. It was also noted that social science remains deficient in the plan. For example, there is more text on how NOAA collects earth observations than on how it collects social science observations.</p> <p>Source – RC meeting minutes Purpose, Context or Question – this quote captures communications during a RC discussion of the status of the five-year research plan</p>
<p>Disasters, whatever, we will be able to do that better for you.[deleted my response] Societal benefits. So I was trying to get it down to how does this matter to the guy on the street, and I think that is appropriate.</p> <p>Source – interview with a member of the NOC Purpose, Context or Question – The NOC member engages the concept of societal benefits in explaining the objective of telling a good story particularly to audiences outside of NOAA – e.g., the general public, congress, OMB.</p>
<p>She/he suggested that IOOS should have a communications person to shape their message internally and externally. This person would help to define the program better and get the message out on the end benefits [i.e., societal benefits]. Another member stated that the IOOS Team is working on getting someone to fill that role.</p>

Source – NOC meeting minutes

Purpose, Context or Question – This quote was taken from a discussion on the status of IOOS – Integrated Ocean Observing System – a major project that will eventually be presented to the NEC for a decision on its execution.

APPENDIX A.F

QUOTES ENGAGING THE CONCEPT OF CAPABILITIES

Earth observations core *capability* for NOAA that is why for better or worse we are responsible for Earth observations (GEO in turn). We need to see that is relatively successful “at least does no harm”.

Source – NEC meeting observations

Purpose, Context or Question – this comment was made by a member in response to an informational brief on preparations for an upcoming international summit on Global Earth Observations (GEO) for NOAA is the leader of the US representatives

On August 2, 2006 a joint meeting was held with the NOSC to consider the IOOS team’s KDP-1 presentation. Many of the NOC members were in attendance. At the joint meeting a number of concerns were raised regarding clearly defining needs and requirements, articulating how IOOS will integrate existing systems, and detailing how IOOS will improve existing NOAA *capabilities*. As a result of these and other concerns KDP-1 was not approved.

Source – NOC meeting minutes

Purpose, Context or Question – IOOS – Integrated Ocean Observing System – is a major project will need to be vetted by the NEC. The NOC and the NOAA Observing Systems Council (NOSC) are leads on the IOOS project and they are responsible for presenting the evidence for Key Decision Point 1 to the NEC and NEP. In order to do so the councils must demonstrate – among several points - that IOOS is relevant to NOAA’s mission and that it will enhance NOAA existing observing capabilities.

Currently, there is nothing directly related to aviation. It is critical to identify NOAA’s capabilities to justify a NOAA leadership role on this project. Investing in these activities will help NOAA to take the leadership role. There is an executive order and much attention on the issue from the administration. It would be a good time to explore NOAA’s *capabilities* and the degree of under-funding to make a better case for future money. There is no reason we could not do a large policy proposal, such as the Ocean Research Priorities Plan based on an interagency dialog.

Source – RC meeting minutes

Purpose, Context or Question – These sentiments were expressed in response to a briefing on the “Next Generation Air Transportation System” This briefing will provide information to the Council on NextGen research requirements and ask for the support of the Research Council determining what current and planned research activities related to this program exist in the NOAA Program. This presentation is timely considering the FY10 PDM has tasked the Aviation Weather Program with a planning role and Executive Order 13419, was signed by the President in December, gives the Department responsibility for foundational research in this area.

APPENDIX A.G

QUOTES ENGAGING THE CONCEPT OF BUDGET RESOURCES

Well, this year - and things have gotten a little tighter financially than they were the last in a few years when I first got here - we had a different Secretary of Commerce and he was more receptive to NOAA having greater requirements than funding and we were able to advocate for higher budgets than we do now, than we were able to last year.

Source – interview with a member of the NEP

Purpose, Context or Question – the member was describing why the decisions during the planning and programming phases of PPBES were challenging

NOAA is a very politically sensitive organization. It is very young in bureaucratic terms - thank you, Mr. Nixon - and it is not fully resourced to meet everybody's needs so it is actively involved in the allocation of scarcity, pretty much all the time. Those things make you very sensitive to those external views.

Source – interview with a member of the NEC

Purpose, Context or Question – the member believes that one of the main issues NEC and NEP members are concerned with when they sit down at the decision-making table – particularly over PPBES issues – is that their constituent base is taken care of in the budgeting process (i.e., individuals fight for their offices interests)

I mean, we know in our processes over the last few years that people have identified programmatic requirements that are fairly reasonable given NOAA's mission that says that NOAA's budget needs to be doubled and made even more. But you cannot get from here to there in one or two or maybe even in five years. You need to chunk away with that at that. And the question is what are those reasonable chunks?

Source – interview with a member of the NEP

Purpose, Context or Question – the member is talking specifically about decisions on NOAA's budget by emphasizing that determining the amount to ask for in a budget request is a difficult group process (i.e., they need to have the resources to meet their mission, however they also need to demonstrate to the rest of the federal government that NOAA is spending funds in a judicious manner)

.... you know this executive decision-making thing is more about the resources required. And, if you look at the types of decisions they are allowed to make, they are really resource questions. There are not any fundamental questions about the qualities. I think we boot [i.e., send or pass them on] them to different boards. Like for example, the goal team is supposed to sort through the priorities, and what is good stuff, and what is bad stuff.

Source – interview with a NOC member

Purpose, Context or Question – in discussing the use of science to make decisions this member asserts that EDP process is more focused on resource (i.e., funding) issues, while intra-line office activities are more likely to use science to support decision-making

APPENDIX A.H

QUOTES ENGAGING THE CONCEPT OF DRIVERS

<p>Discuss external <i>drivers</i> potentially impacting NOAA’s ocean mission and demand for products and services for FY 2010-14 as a basis to identify NOC priorities for the AGM.</p> <p>Source – NOC meeting document</p> <p>Purpose, Context or Question – this quote provides <i>drivers</i> (e.g., legislative acts, natural resource industry trends, heighten societal interests in addressing climate change)that should be considered in the NOC’s discussion on the composition of an agency wide, annual planning document</p>
<p>It might be useful to cite the legislative as well as social <i>drivers</i> for activities.</p> <p>Source – RC meeting minutes</p> <p>Purpose, Context or Question – NOAA’s Research Council was creating a five year research plan for NOAA. This quote comes from a document that was compilation of edits and on comments on the current draft of the five year research plan.</p>
<p>Some NOC members raised the issue of mercury funding. The view was expressed that Mercury and OHH are critical issues for the country. they haven’t been funded in the past. This is an important NOAA issue and we should continue to seek funding.</p> <p>Source – NOC meeting minutes</p> <p>Purpose, Context or Question – This quote was taken from a set of NOC meeting minutes during the planning cycle of PPBES. It sheds light on how a societal issue – mercury in the ecosystem – can be a social driver.</p>
<p>It was noted that it may be beneficial to crosswalk the research areas in the Research Plan with the Ocean Research Priorities Plan (ORPP) in order to formally show the interface and how NOAA will address the ORPP.</p> <p>Source – RC meeting minutes</p> <p>Purpose, Context or Question – ORPP was created by the Joint Subcommittee for Ocean Science and Technology and presents research priorities that focus on the most compelling issues in key areas of interaction between society and the ocean (US Commission on Ocean Policy).</p>

APPENDIX A.I

QUOTES ENGAGING THE CONCEPT OF STORY OR GOOD STORY

<p>It is an example of NOAA's inability to tell its story, to be able to explain why we could use UASs. The UASs actually got a pretty well-laid out plan, more well-laid out than a lot of things at NOAA but still we are still struggling to sell that to the Department [of Commerce]...to...[the NOAA Budget Office]...So even internally...</p> <p>Source – interview with a member of the NEP Purpose, Context or Question – In talking about a particular meeting interaction the member described the heart of the issue as an example of individual NOAA employees not being able to offer a good story.</p>
<p>Sure. I think it means that we're not packaging the message about the importance of what we do in a frame that is readily usable by the audience. We end up telling the story the way it makes sense to us rather than thinking about, you know, 'Why am I telling the story?' 'What's my objective?' 'Who's the audience?' You know, 'what is it that they want to hear?'</p> <p>Source – interview with a member of the NEC Purpose, Context or Question – the member was responding to the following question, "Have you heard some talk about telling a good story or We need to tell a good story."</p>
<p>...[T]here's a very pragmatic significance to that. If we cannot express what we do in terms of societal benefit, we will not succeed in getting the resources we need. If we talked about improving a non-hydrostatic model because it's really a fun thing to do, nobody will give us money for it. We have to tell our [story]. [We]...have to convince the NOAA leadership, then we have to convince the Department of Commerce, then the Office of Management and Budget, and then Congress why improving a non-hydrostatic model may mean an enhanced capability to forecast a particular environmental process, to help Commerce and Transportation, to help ecosystem based management, to help forecast the weather - all of the mission issues that's the societal benefit. So there's an altruistic element to it; it's the right thing to do for society, and the tax payers are paying us to do things for society. And then there's a very, ah, parochial interest in it -- basis for it. And that is to get more resources.</p> <p>Source – interview with a member of the NEC Purpose, Context or Question – in talking to this member about the concept of a good story and the importance of societal benefits the member launched into this commentary on the importance of demonstrating societal benefits and approaching the particular audience with appropriate messages</p>
<p>I think when I hear resonate, I guess, we need to make arguments...we're a bunch of scientists by training, and we love the ocean or we love whether or whatever it is, but the people who were trying to convince don't have that same frame of reference. So you need to think about what you're doing and what is it about what you're doing that's going to make sense to them, like going out and this actually, I think the Caribbean, when we talked about the Caribbean Initiative, or ideally this was a good example.</p> <p>Source – interview with a transient participant in NEP, NEC, RC and NOC meetings. EM Purpose, Context or Question – this member talks about importance of appealing to one's audience when telling a good story.</p>
<p>We are not framing this well. When we talk about money we need to talk about benefits and specifics of what it's for.</p> <p>Source – meeting observations of the NOC Purpose, Context or Question – the member was commenting on the presentation of a program plan from a representative of one of NOAA's five goals. Program plans are a milestone in the programming stage of PPBES.</p>

(Continued)

APPENDIX A.I (Continued)

So, means that if you make a lot of assumptions that somebody understands your mission and you know why it's important and stuff like that, we can communicate and things like that, but in terms of making a simple-to-understand story that connects with Jack Kelly, let's say oe bag of donuts; and Admiral Lautenbacher, let's say the guy in the bar stool in Peoria, we tend not to get a message down to the essence like that, and even some of the terminologies that we use to package some of these things aren't the best and we're guilty of it, I'm guilty of it, my guys are guilty of it, too. So, to think that I'm often pressing people for is who cares and why do they care? You might have a best idea in the thing, but could you just tell me really simple, and we don't often get it down to the essence of that.

Source – interview with a member of the NEC MG

Purpose, Context or Question – in talking about telling a good story this member emphasizes the importance of connecting with one's intended audience by using issues and terms that are relevant to the specific audience at hand

We need to know the concerns of the Pres and the DOC. We need to make arguments that resonate with them; our culture is not carrying weight with them. We need to determine...the high priority things that NOAA wants to gain [implies DOC/Congressional/Presidential] support for.

Source – comments made by a NEC member taken from observations of a joint NEC-NEP meeting

Purpose, Context or Question – This meeting covered a major milestone in the PPBES process the presentation of each goal teams program plans to the NEC-NEP for approval.

APPENDIX A.J

QUOTES ENGAGING THE CONCEPT OF POLITICAL

<p>You get a lot more of micro-politics when you get into the real decision making environment of the NEC and the NEP.</p> <p>Source – an interview with a member of the NEP Purpose, Context or Question – stated when characterizing and distinguishing the different “dynamics” that take place in NOAA’s councils.</p>
<p>Well its the, you know, there is some of the <i>political</i>, in the sense of the Congressional, but there is also that when you know. When you look at the whole set of policies we deal with, you know both within our agency...</p> <p>Source – an interview with a member of the RC Purpose, Context or Question – in discussing decisions at the NEC-NEP level this member asserts that while congressional politics play a role at times, it is the micro-<i>politics</i> or “little p” politics, those that take place within NOAA and between NOAA and other agencies that are more frequently part of NEP-NEC deliberations.</p>
<p>Sure, the other thing is that I think it’s important probably for you to know that the NEC members, they aren’t always free in the way they describe themselves and the way they argue points. So I think there’s a natural tendency in that room to look for ways to be mutually supportive, and you do that. And one of the ways you do that is by not taking on issues that you don’t really have a solid stake in.</p> <p>Source – an interview with a member of the NEC Purpose, Context or Question – in discussing the happenings at a recent NEC meeting over a contentious issue this member explained his stance on the matter.</p>
<p>One of the great challenges at NOAA that did not exist for me when I was at the Department of ... is there are a multiplicity of constituent groups that, um, sometimes are in agreement and sometimes are not. And, in fact, ... have not only their disagreement manifested in the stakeholder environment, or in the constituent environment, but also manifested in the Congressional environment.</p> <p>Source – interview with a member of the NEP Purpose, Context or Question – the member had stated – when questioned by a fellow member – that the outcome of the matter at hand depending on the “political environment”</p>
<p>Right. You know, they [NEC-NEP] are policymakers at this point. And then clearly, <i>political</i> factors influence what is going on, and uhm. You know ultimate decisions that are made. I think the <i>political</i> factors... they come in at all levels.</p> <p>Source – interview with a transient participant in NEC, NEP, NOC and RC meetings Purpose, Context or Question – this participant is asserting that while politics take place at all levels of the organizations they are most prevalent at the NEC-NEP level.</p>
<p>That gets further limited because the people who are running the lines have to deal with Congress and you don’t want to go get Congress all hacked off at you because you went in and said cut this particular program or this particular earmark or this particular [indiscernible] research funding. If you do that in your discretion that you can do, you end up then with your suppliers of money, is Congress, doing what they will do, is one of the best things they can do in response to not liking what you’ve done, and that is saying we’re not going to give you money to go down this mandate.</p> <p>Source – interview with a member of the RC Purpose, Context or Question – the member in describing the concerns of NOAA’s executives while planning and programming for the agency explains how keeping their relationship with the members of congress in good standing</p>

is important

APPENDIX A.K

QUOTES ENGAGING THE CONCEPT OF CONSTITUENT/STAKEHOLDERS

<p>They both had a line office perspective. And they were both representing the concerns of their <i>constituents</i>.</p> <p>Source – interview with a transient member of the NOC and RC (and former NEP member)</p> <p>Purpose, Context or Question – in discussing a meeting interaction the member explains the perspectives of two other members who were involved in deliberations over a topic of interests to both of them</p>
<p>And there is a lot I get to learn at NOAA about planning. At NOAA we are very interested in what the constituent thinks and you can define “<i>constituent</i>” in many different ways. So that would be the Hill, the customer in Nebraska, or the line offices versus the goals. All those are <i>constituents</i>.</p> <p>Source – interview with a NEP member</p> <p>Purpose, Context or Question – the member emphasizes the importance of constituents in the NOAA’s planning and programming decisions</p>
<p>one of the great challenges at NOAA that did not exist for me when I was at the Department of the Army, when I was at the National Guard, is there are a multiplicity of constituent groups that, uhm, sometimes are in agreement and sometimes are not. And, in fact, are and have not only their disagreement manifested in the stakeholder environment, or in the <i>constituent</i> environment, but also manifested in the Congressional environment. So what is happening in these meetings is that there are different constituencies, depending on how you slice it. There is an emergency management constituency throughout the United States that just loves the Weather Service, just the way it is, because it is required -- they need what the Weather Service does in order for them to do their job. When you slice it across the matrix program there is an organization called, there is program called ST&I, Science and Technology Integration, I cannot remember what the “I” stands for, but that is actually a research-to-operations component for weather. They have a different <i>constituency</i>, it is almost entirely academic.</p> <p>Source – interview with a NEC member</p> <p>Purpose, Context or Question – the member when talking about executive decision-making at NOAA emphasizes the importance of recognizing the interests of constituents throughout the planning and programming process</p>
<p>I wish we would be more judicious in our use of terms. [X term]... run[s the] risk of being all things to all people. ... When we take money out of contracting survey we run the risk of getting in trouble with <i>constituents</i>.</p> <p>Source – NEP meeting observations</p> <p>Purpose, Context or Question – the member is commenting on terms used during a briefing. Her/his comment demonstrates the importance of constituents to NEP members</p>

APPENDIX B.A

QUOTES ENGAGING THE CONCEPT OF MULTI-HATTING

<p>Yes. I think, particularly, in the council structure, many of -- many of the members of the council wear different <i>hats</i>. So in addition to coming to a council, it will go to each of the line offices, and the members of the council are senior members of each of their line offices as well. Goal teams will also have a chance to comment. And so, again, the goal team members who are on the council will have other opportunities wearing their - those different <i>hats</i> and bringing those different perspectives.</p> <p>Source – interview with a member of the RC Purpose, Context or Question – the member in responding to a question on a particular meeting exchange explains how many of the council members are members/representatives of other entities and in doing so offers insights into the concept of multi-hatting.</p>
<p>That is always interesting because major line offices have different perspectives on their particular problem and what constitutes the assigned spaces for [science]. So sometimes you are in that role, and sometimes you are in the role of these other <i>hats</i> where you are trying to take the broad crosscut. It is somewhat difficult when you are wearing these <i>double hats</i> not to let your biases get across whatever decision-making you are in because, obviously, if you are wearing your line office <i>hat</i>, you are trying to look out for that interest. If you are wearing the one NOAA hat, you want to make sure that you are perceived as being non-bias.</p> <p>Source – interview with a member of the NOC Purpose, Context or Question – in responding to my question on the use of science at NOAA the member commented on multi-hatting at NOAA</p>
<p>And my current position, I really wear two <i>hats</i>; one isThat is <i>hat</i> number one. <i>Hat</i> number two is....</p> <p>Source – interview with a member of the NEP Purpose, Context or Question – This member was asked to describe what she/he does at NOAA</p>
<p>So, you know, like when you get to the Research Council or when you get to the Ocean Council, you have people that are being asked -- a lot of times, you have people that are being asked to take on a role there that is not at odds with their day job but substantially different than their day job.</p> <p>Source – interview with a member of the NEC Purpose, Context or Question – the member in talking about the different roles of the councils shed light on the role or activity of a multi-hatter</p>
<p>So, we do have people who are <i>multi-hatted</i> because of some larger organization -- in contrast with some larger organizations like the Defense Department, you've got a Pentagon that does all of the strategic thinking and you've got the troops out in the field that execute the plans. But we are not so big, so we've had to do a hybrid in people have to be not only planning but in many cases executing those plans.</p> <p>Source – interview with a member of the RC Purpose, Context or Question –the member was asked to describe the environment she/he works in as a member of the research council</p>

(Continued)

APPENDIX B.A (Continued)

I am not going to disagree. We are not done. I have worn a lot of hats in this process. I won't be able to answer your question until we are done.

Source – observations of a NEC meeting

Purpose, Context or Question – this comment was made by a NEC member in response to a question from the leader of the NEC (the Undersecretary of Commerce) on how PPBES and particularly the planning phase of it was going (i.e., is the process effective).

Member A: the Research Council and the NOC should be involved with the assessment of the EETT's recommendations. Member B: I agree. I am just not sure how (i.e.,) the body - that assesses the EETT's report - should be comprised. Member A: all our groups (goals, councils, LO leadership, working groups, committees) are incestuous

Source – meeting observations of the Research Council

Purpose, Context or Question – in a meeting discussion over how the outcome of an extra-organizational review should be assessed (i.e., who should assess it) one of the member implicitly recognizes the phenomenon of multi-hatting as the various councils, etc are described as being incestuous.

APPENDIX B.B

QUOTES ENGAGING THE CONCEPT OF PROCESS

I came from a defense background, and the two guys leading this organization come from the defense background. I think I have a little bit better understanding of where they come from. Further, within the Department of Defense, you change jobs every two to three years, and the very first thing you do is look at process and what that process is in the new job.

Source – interview with a NOC member

Purpose, Context or Question – the member commentary is response to my question as why she/he demonstrated relatively strong knowledge of the Executive Decision Process at NOAA

Knowing the process, knowing the audience, knowing the objective of a particular meeting. What's the objective of an ERP meeting? What's the objective of the NEP meeting? What's the objective of a discussion? The way I explain it is I don't like to go into any meeting, certainly, if I'm chairing it, without an expected outcome for each agenda item. And so when you start saying, 'What's the expected outcome of this upcoming meeting on the Hill, at a NEP meeting...' that expected outcome is going to be different because of that -- that audience and because of the mission of that particular organization.

Source – interview with a NEC member

Purpose, Context or Question – in talking about telling a good story and the value of understanding process the member launched into this commentary

'Many-bites-of-the-apple' is relevant...with... [this issue as] I think we should focus on filling gaps and reinforcing contributions from the goals and lines.

Source – interview with a RC member

Purpose, Context or Question – in discussing her/his comment – “Many-bites-of-the-apple” - during a meeting the member demonstrated her/his knowledge of the workings of the Executive Decision Process and the councils and offices that comprise the process as this comment implies that RC members will engage this issue from many different positions in the Executive Decision Process (e.g., council A, council B, line office)

APPENDIX C.A

QUOTES ENGAGING THE CONCEPT OF DECISION-MAKERS WITH THE TERMS, LEADERS, DECISION-MAKERS, ADMIRAL, JACK, AND NEC-NEP

<p>But ultimately the goal teams present their views through PA&E to the <i>NEP/NEC</i> and, uhm, who make recommendations to the <i>Admiral</i>. Although, essentially, I think the <i>Admiral</i> would prefer, in most cases, to treat those as decisions once they're done by the <i>NEP-NEC</i>, but I view the <i>NEP-NEC</i>'s role essentially is being advisory. ... And, of course, <i>Jack Kelly</i> is the chair of the NEP. So, if he is the decision-maker, really, on an operational matter for NOAA, that it's not gonna go to the <i>Admiral</i>. That's perfectly appropriate. They go to the NEP and the NEP advises him and he makes the decisions.</p> <p>Source – interview with a member of the NEC Purpose, Context or Question – in describing the Executive Decision Process the member offers a description of the workings of the NEP</p>
<p>So if <i>General Kelly</i> is not signed up 15 months ago when it allows the paperwork to go through, he is, because he is the chairman of the NEP; he gets to essentially have his way... .</p> <p>Source – interview with a member of the NEC Purpose, Context or Question – in response to my question about how decisions are made at NOAA the member explains that lead of the NEP – <i>Deputy Undersecretary</i> – must be in agreement with the direction of all issues that pass through the NEP (i.e., for those issues that are determined at the NEP and for those issues that are reviewed for the NEC)</p>
<p>Well, what the NEC really tends to do is advise the <i>Admiral</i>. There are some things that the <i>Admiral</i> is really the decision person on, you know like exactly what budget is NOAA going to submit. At the end of the day, you know the NEC can do and say a lot of stuff, but it's really the Admiral who makes that decision.</p> <p>Source – interview with a member of the NEC Purpose, Context or Question – the member responds to a question about the advisory role of the <i>NEP</i> and <i>NEC</i> by emphasizing that the Admiral is the decision-maker and that in fact the rest of the NEC serves to advise him</p>
<p>Now there are some things that the <i>Admiral</i> says - you know, he wants to see the -- he wants have it come to the NEC. <i>Jack</i> would like to see a minimum amount of those issues. <i>He</i> would like to solve things at the NEP. Now, there have been some times that we have not been able to solve something at the NEP and we just give our opinion; it goes forward to the NEC because <i>Jack</i> knows the <i>Admiral</i> wants to see it. But at the NEP, we try to handle as much as we can at our level so it does not have to go to the NEC.</p> <p>Source – interview with a member of the NEP Purpose, Context or Question – in describing the role of the NEP the member indicates the key decision-making roles that the leaders of the NEP and NEC play (i.e., Jack and the Admiral)</p>
<p>There -- early on, there was a sense that the NEC was a consensus-developing body; it is not. The NEC is the forum for the <i>Admiral</i> to hear a number of perspectives. And <i>he</i> makes the decision. There is no consensus. There is no voting.</p> <p>Source – interview with a NEC member Purpose, Context or Question – in describing a meeting communication the member explains that this communication was emblematic of the leadership driven decision-making that takes place at the NEP and NEC</p>

(Continued)

APPENDIX C.A (Continued)

<p>I see the Executive Decision Process as really having two tracks; one dealing with the PPBES, the other one dealing with other policy issues. And that the councils advise the goal teams in the one score [i.e., PPBES] and then the councils, you know, advise upward to the NEP-NEC on the policy questions.</p>
<p>Source – interview with a NEC member Purpose, Context or Question – the member’s commentary was given in describing the Executive Decision Process</p>
<p>Well, what the NEC really tends to do is advise the Admiral. There are some things that the Admiral is really the decision person on, you know, like exactly what budget is NOAA going to submit. At the end of the day, you know the NEC can do and say a lot of stuff, but it’s really the Admiral who makes that decision. So, all of these councils are written with the chairs having 51 percent of the vote. Uhm so, we say things like striving for consensus, and there can also be minority opinions. I think there’s a lot of things that’s under the NEP’s purview, that NOAA depends on the NEP to do; get that stuff done. And there’s other stuff that by the time it gets to the NEC, we would’ve expected the NEP to have dealt with it and have it pretty cleaned up, a clean recommendation.</p>
<p>Source – interview with a NEC member Purpose, Context or Question – the member when asked how decisions are made in the Executive Decision Process offered the above response</p>
<p>They decided that this year we should allow the goal leads to actually present their perspective directly to the NEP/NEC and then the NEP/NEC could have the opportunity to make a decision.</p>
<p>Source – interview with a intermittent participant in NEC, NEP, NOC and RC meetings Purpose, Context or Question – the informant in explaining why the programming phase of PPBES was different this year offered the above quote</p>
<p>Yes, I mean, I consider the NEC and the NEP to be the principal organizational settings for the decision making process. So the sequence, things go through NEP to NEC. And it is a structure that those are the principal components of the executive decision making. So there is a lot of process rules, procedures; but to me the whole executive decision making process centers on the NEP and the NEC.</p>
<p>Councils don't make strategic management decisions. They advise the NEP and the NEC on what we hope are strategically significant matters.</p>
<p>Source – interview with a member of the NEP Purpose, Context or Question – the member was asked to describe the Executive Decision Process</p>
<p>Now there are some things that the Admiral says - you know, he wants to see the -- he wants have it come to the NEC. Jack would like to see a minimum amount of those issues. He would like to solve things at the NEP. Now, there have been some times that we have not been able to solve something at the NEP and we just give our opinion; it goes forward to the NEC because Jack knows the Admiral wants to see it. But at the NEP, we try to handle as much as we can at our level so it does not have to go to the NEC.</p>
<p>Source – interview with a member of the NEP Purpose, Context or Question – the member offered the above quote in explaining the roles of the NEP and NEC in the executive decision process</p>

APPENDIX C.B

QUOTES ENGAGING THE CONCEPT OF ADVISERS WITH THE TERMS RECOMMENDATIONS, ADVISORY, CLARIFY, AND COUNCILS

Councils don't make strategic management decisions. They advise the NEP and the NEC on what we hope are strategically significant matters. The councils are not... NOAAs executive decision process relies on input from councils in many instances but I don't think of the executive decision making process as necessarily including the councils. The councils advise...

Source – interview with a member of the NEP

Purpose, Context or Question – in describing the extent of the lower councils deliberative power the member asserts that they are advisory bodies, not decisional

A) Where a NOAA approach is dictated, then the councils basically have a strong role for vetting these issues and bringing highlights of these things to the NEP/NEC.

B) And that the councils advise the goal teams in the one score [i.e., PPBES] and then the councils, you know, advise upward to the NEP/NEC on the policy questions.

Source – interview with a member of the NEC

Purpose, Context or Question – in describing the Executive Decision Process the member offered the above quotes

And so certainly before items get up to the NEC and NEP level, are the executive decision making bodies, what NOAA has tried to do is to set up a structure that enables as much information to be gathered as possible, but feeds in to the NEC and NEP.

Source – interview with a member of the RC

Purpose, Context or Question – in describing the Executive Decision Process the member implies that the councils are information gathering bodies intended to inform the NEP and NEC

APPENDIX C.C

QUOTES ENGAGING THE CONCEPT OF PPBES

And you have to do that or, you don't have, you don't have an organization; not an organization that works in the -- Weather [NWS], Fish [NMFS], you work in the stovepipes that we're in. Those are the only mechanisms that we have and they were started six years ago ... to deal with those.

Source – interview with a member of the NEC

Purpose, Context or Question – the member identifies PPBES, and the matrix organization as mechanism intended to bring more unity to the organization in its planning and eventually its operations

Above all, the Council wants the NEP to understand that NOAA hurricane strategy will be built upon existing NOAA programming and planning processes and that it will be expensive to execute properly.

Source – RC meeting minutes

Purpose, Context or Question – in this quote the RC explicitly notes that its proposed strategy for hurricane research and preparedness will be built upon (aligned with) previous planning and budgeting efforts

I see the Executive Decision Process as really having two tracks; one dealing with the PPBES, the other one dealing with other policy issues. And that the councils advise the goal teams in the one score [i.e., PPBES] and then the councils, you know, advise upward to the NEP-NEC on the policy questions.

Source – interview with a NEC member

Purpose, Context or Question – the member's commentary was given in describing the Executive Decision Process

APPENDIX D.A

LIST OF NOAA ACRONYMS

Acronym	NOAA Term
CGT	Climate Goal Team
CI	Cooperative Institute
C&TGT	Commerce and Transportation Goal Team
DOC	United States Department of Commerce
EDP	Executive Decision Process
EGT	Ecosystem Goal Team
EPA	United States Environmental Protection Agency
ERP	Ecosystem Research Program
IOOS	Integrated Ocean Observing System
JSOST	Joint Subcommittee on Ocean Science and Technology
MSGT	Mission Support Goal Team
NASA	National Aeronautics and Space Administration
NEC	NOAA Executive Committee
NBO	NOAA Budget Office
NEP	NOAA Executive Panel
NESDIS	National Environmental Satellite, Data & Information Service
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOC	NOAA Ocean Council
NOS	National Ocean Service
NOSC	NOAA Observing Systems Council
NWS	National Weather Service
OAR	Office of Oceanic and Atmospheric Research
ORPP	Ocean Research Priorities Plan
PA&E	Program Analysis and Evaluation Office
PPBES	Planning, Programming, Budgeting and Execution System
PPI	Program Planning and Integration
NOC	NOAA Research Council
WWGT	Weather and Water Goal Team

Source: NOAA

APPENDIX D.B

CONSENT FORM

Consent Form

Authorization to Participate in a Doctoral Dissertation Research Project

Conducted by John V. Primo a graduate student from the University of Georgia, under the supervision of Dr. Theodore Gragson (office phone: 706-542-1460)

Consent is hereby given to participate in the study titled:

Decision-making in the National Oceanic and Atmospheric Administration

1. Purpose:

The purpose of this investigation is to develop a substantive theory of executive decision-making at NOAA. The project will make theoretical contributions to the fields of cultural anthropology, information use, and decision-making. In addition, lessons learned will be made available to NOAA providing possible avenues for organizational enhancement.

2. Description of Study:

A study of information use and decision-making by participants in NOAA's Executive Decision Process will be conducted via interviews and meeting observations. Research collaborators include participants in the various deliberative forums that comprise the deliberative arenas of NOAA's Executive Decision Process, as well as program directors from the Ecosystem Research Program's eight component pieces. Time required of each interview participant will not exceed four hours including initial interviews and any later interviews.

Subjects will be initially contacted in person and, will subsequently be contacted via a letter explaining the focus of the research, its intent, and the level (activities, extent) of participation required. Before conducting the interview, the collaborators will receive a background of the research, as well as a brief introduction as to the nature of the interview questions. This consent form will be presented. Once consent is received the interviews will be conducted.

3. Benefits:

The benefits to the subject, NOAA, and ultimately the American public:

- a. Organizational insights garnered from this research may be engaged to enhance NOAA's decision procedures, aiding NOAA's in its efforts toward meeting its mandated mission – science, stewardship and policy toward ecologically sound coastal, Great Lakes and Marine resources.
- b. More specifically, a heightened understanding of NOAA's current deliberative processes may enable the administration to foster a more effective decision-making process. The results of an enhanced decision-making process may enhance NOAA's contributions toward the environmentally sustainable use of our coastal, Great Lake and Ocean resources.

4. Risks:

The interviews may be time consuming, thus the Principal Investigator will structure individual interviews in the most efficient manner. Your participation may be terminated at any time (before, after, or during the interview process) and you may deny the use of any information collected from you and request its destruction at any time. Your identity will not be connected with the information garnered from your

interview(s) and will not be relayed during the transmittal of research results derived from your interview data.

5. Confidentiality:

All information will be handled confidentially, as the ultimate goal of this research is to discern a substantive theory of scientific information use by decision-makers involved in NOAA's Executive Decision Process.

6. Subject's Assurance:

Whereas no assurance can be made concerning the results that may be obtained (since results from investigational studies can not be predicted) the research will take every precaution consistent with the best scientific practice. Participation in this project is completely voluntary and subjects may refuse to participate or withdraw from this study at any time without penalty, prejudice, or loss of benefits. Questions concerning the research should be directed to John Primo at 706-202-0075. This project and this consent form have been reviewed by the University of Georgia's Institutional Review Board, ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Human Subjects Office at the University of Georgia – (706) 542-3199 or IRB@uga.edu. A copy of this form will be given to the participant.

7. Signatures:

In conformance with the federal guidelines, the signature of the collaborator or parent or guardian must appear on all written consent documents. The investigator explaining the study to the collaborator must date and sign below as well.

John Primo

Name of Researcher

Telephone: (706) 202-0075

Email: john.primo@noaa.gov

Signature

Date

Name of Participant

Signature

Date

APPENDIX D.C

REQUEST FOR PARTICIPATION IN DOCTORAL DISSERTATION RESEARCH

Date:

Subject: Request for Participation in Doctoral Dissertation Research

From: John Primo

To:

Dear:

You have been identified as a candidate for participation in my study on decision-making at the National Oceanic and Atmospheric Administration (NOAA). As a Doctoral Candidate at the University of Georgia in the Department of Ecological Anthropology I am conducting dissertation research on executive decision-making at NOAA. The purpose of this investigation is to develop a theory of decision-making at NOAA. I will use my findings to make theoretical contributions to the fields of cultural anthropology, information use, and decision-making. In addition, lessons learned will be made available to NOAA's leadership, with the aim of providing potential avenues for organizational enhancement.

Your participation in this project is completely voluntary and participants may refuse to participate or withdraw from this study at any time without penalty, prejudice, or loss of benefits. Research participants include members of the various deliberative forums that comprise NOAA's decision process, as well as leaders from the Ecosystem Research Program's component programs. Interviews will last approximately 1 hour. Depending on the course of the research, a participant may be asked for 1 or 2 follow-up interviews of the same length. Participants are asked questions related to decision-making. All information collected is handled confidentially. The main period of investigation involving interviews, observing meetings, and collecting meeting documents has ended. Your potential interview would be the last full interview conducted.

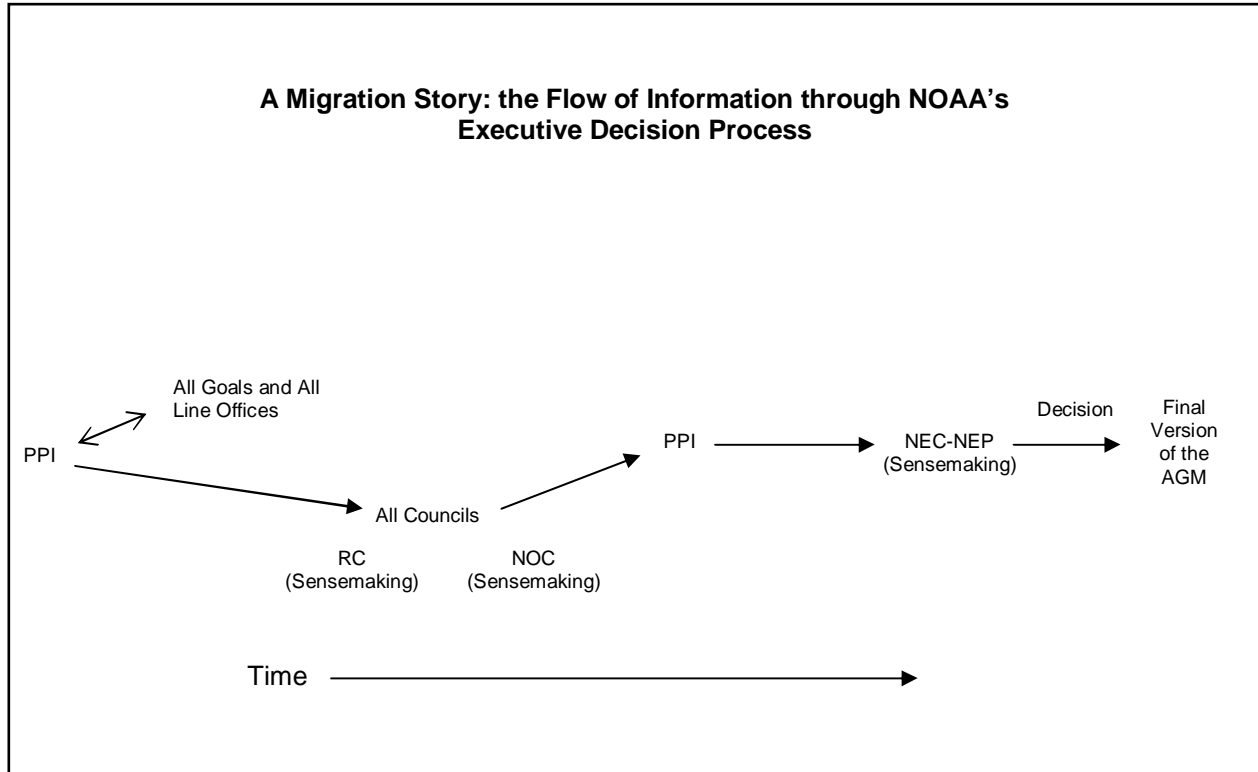
If you have immediate questions or concerns regarding my research, I can be contacted via telephone (Cell: 706-202-0075) and email (jprimo@uga.edu). My project has been reviewed by the University of Georgia's Institutional Review Board, ensures that research projects involving human subjects follow federal regulations. Any questions or concerns about rights as a research participant should be directed to the Human Subjects Office at the University of Georgia (706-542-3199 or IRB@uga.edu).

Respectfully yours,

John Primo

APPENDIX D.D

A MIGRATION STORY FLOW CHART



APPENDIX E

THE NOAA EXECUTIVE COUNCIL -- CHARTER AND MEMBERSHIP

The NOAA Executive Council, hereafter referred to as the NEC, is the highest level executive management body within NOAA. The purpose of the NEC is to advise the Under Secretary of Commerce for Oceans and Atmosphere/NOAA Administrator before final decisions on NOAA wide policy (i.e., but not limited to budget, policy, procedure, organizational direction, organizational assessments and resolving conflicts) are made. It is the forum through NOAA senior management provide advice and counsel on high level operation and management issues. The Chair of the NEC will be the Under Secretary of Commerce for Oceans and Atmosphere/NOAA Administrator. When absent, it will be the most senior member of the NOAA management team.

Membership:

The membership is made up of principal and supporting members. Principals are permanent members of the NEC who will participate fully in all matters under consideration by the NEC. Supporting members will be invited to participate as the subject matter dictates. Membership is:

Principals:

Under Secretary of Commerce for Oceans and Atmosphere/NOAA Administrator, Chair

Assistant Secretary of Commerce for Oceans and Atmosphere

Deputy Under Secretary of Commerce for Oceans and Atmosphere

Deputy Assistant Secretary for Oceans and Atmosphere

Deputy Assistant Secretary for International Affairs

Assistant Administrators of

- National Environmental Satellite, Data, and Information Service

- National Marine Fisheries Service

- National Ocean Service

- National Weather Service

- Oceanic and Atmospheric Research

- Program Planning and Integration, pending approval

Director, Office of Marine and Aviation Operations

Chief Financial/Administrative Officer

Supporting members:

General Counsel

Director, Public and Constituent Affairs

Director, Legislative Affairs

Chief of Staff

Executive Director to the Deputy Under Secretary

Executive Assistant to the Under Secretary

Decision Coordination Office

Roles and Responsibilities:

Principals are expected to attend NEC meetings in person and be prepared to discuss the strengths and weaknesses of proposals brought before the NEC. Supporting members are expected to be prepared to contribute to the discussions, however, in most cases they are to serve as observers. There may be occasions where the Chair may call a NEC meeting of 'principals only.' If a member is not available to attend a NEC meeting, the member may

designate a representative for the meeting and will provide the name of the alternate to the Executive Assistant to the Under Secretary and the Decision Coordination Office (DCO).

Decision Making Process:

Decisions in the NEC will be accomplished by informed consensus. The Chair will strive for consensus on every issue, but because the chair maintains 51% of the vote, the final decision is made by the Chair when consensus is not achieved.

Charter:

- The NEC shall meet bi-weekly or at the call of the Chair. Meetings will be arranged by the Office of the Under Secretary. Timely notifications will be sent to NEC membership by e-mail, specifying meeting date, time and location.
- Issues that principals believe are in need of resolution by the NEC should be directed to the Chair, Chief of Staff or DCO.
- The DCO will be responsible for developing formal agendas, briefing documents and conducting the necessary research to support decision-making issues raised at the meetings.
- Meeting minutes will be the responsibility of the DCO. The minutes are to be compiled within 48 hours of the NEC meeting. Minutes will be reviewed by the presenter, Chief of Staff and the Executive Director to the DUS for accuracy.
- The minutes will be used by the DCO to formulate a NOAA Action Memorandum (NAM) will be distributed to NEC members for comments within 72 hours. After 72 hours, the DCO will assume that all comments are received and can proceed with a final version for the US's signature. The Executive Secretariat will distribute the NAM to all NEC Members and will assign and track deadlines. The DCO is responsible for following up on actions and deadlines to ensure that decisions made by the NEC and codified in the NAM are implemented. The NEC can amend a NAM if it is so needed.

APPENDIX F

NOAA OCEAN COUNCIL – TERMS OF REFERENCE AND MEMBERSHIP

Purpose:

The NOAA Ocean Council (NOC) is established as the principal advisory body to the Administrator and focal point for the agency's ocean activities and interests, including open ocean, near shore, coastal, estuarine and Great Lakes activities. Specific purposes of the Council include, among others deemed as appropriate:

- Coordinating ocean activities across NOAA, including with other councils.
- Proposing priorities and investment strategies for NOAA ocean-related initiatives (both internal and external).
- Identifying NOAA's ocean and coastal programs that have the greatest potential to benefit from integration via a matrix management approach.
- Coordinating NOAA's participation in the interagency National Oceanographic Partnership Program (NOPP).

Membership:***Leadership***

- NOAA Oceans and Coasts Assistant Administrator (Co-Chair)
- NOAA Fisheries Assistant Administrator (Co-Chair)

Principals

- NOAA Oceans and Coasts
- NOAA Fisheries
- NOAA Satellites and Information
- NOAA Research
- NOAA Weather Service
- NOAA Marine and Aviation Operations
- NOAA Program Planning and Integration

Participating and Advisory

- NOAA Program Analysis and Evaluation
- NOAA Legislative Affairs
- NOAA Public Affairs
- NOAA Education Council
- NOAA Observing System Council
- NOAA Research Council
- NOAA International Affairs Council
- NOAA Platform Allocation Council
- NOAA Finance
- NOAA Administration
- NOAA General Counsel

Executive Secretariat:

Policy Planning and Analysis Division, NOAA Oceans and Coasts

Roles and Responsibilities:

The NOAA Ocean Council shall provide recommendations to the NOAA Executive Panel. The Assistant Administrators of NOAA Oceans and Coasts and NOAA Fisheries will co-chair the Council. The Council will:

- Provide the NOAA strategy for leadership on national and international ocean issues.
- Serve as a cross-line office advisory committee on the management of ocean programs and activities within NOAA and with external partners.
- Develop recommendations to improve coordination of ocean activities within NOAA through mechanisms such as partnerships and matrix programs.
- Develop recommendations to improve customer service and product delivery, both nationally and through enhanced local and regional coordination and communication.
- Develop performance measures for NOAA's ocean and coastal activities that are linked to the NOAA Strategic Plan performance measures. This will include the responsibility to develop and state the expected outcomes and/or benefits of NOAA's investment in ocean activities.
- With respect to NOPP, the NOAA Ocean Council shall:
 - Maintain cognizance over all NOAA interests in NOPP activities and coordinate NOAA preparations for participation in the National Ocean Research Leadership Council (NORLC) and its associated efforts (e.g., the
 - Interagency Working Group, the Ocean.US Executive Committee, the Ocean Research Advisory Panel (ORAP), and the Federal Oceanographic Facilities Committee (FOFC).
 - Identify activities and funds to be proposed for NOPP consideration, including, where appropriate, the use of NOPP for proposal solicitations by NOAA Line Offices and the coordination of these solicitations with partner agencies.

Decision Making Process:

Meetings will be held monthly. The Council may establish permanent or temporary subordinate bodies as needed. Decisions will be accomplished by informed consensus of all members. The Chairs will strive for consensus on every issue. At their discretion, the Co-Chairs may submit an issue to a vote of the principal Council members. Notwithstanding a vote of the principals, the Co-Chairs maintain 51 percent of the vote and have final decision making authority when consensus is not achieved.

Approved June 29, 2004

APPENDIX G

RESEARCH COUNCIL -- MEMBERSHIP

- Chair (OAR):
- Vice Chair:
- NOAA Research (OAR) representative:
- NOAA Fisheries Service (NMFS) representative:
- NOAA's National Ocean Service (NOS) representative:
- NOAA's National Weather Service (NWS) representative:
- NOAA Satellites and Information Service (NESDIS) representative:
- NOAA Program Planning and Integration (PPI) representative:
- NOAA Marine and Aviation Operations (NMAO) representative:
- Executive Secretariat:

June 2007

APPENDIX H

NOAA EXECUTIVE PANEL -- CHARTER AND MEMBERSHIP

The NOAA Executive Panel, hereafter referred to as the NEP, is a senior level body within NOAA that works with the Deputy Under Secretary for Oceans and Atmosphere (DUS) to make decisions on NOAA-wide operating issues and policies. It is the forum through NOAA senior management will have input into the day to day NOAA-wide management issues that do not require the attention of the NOAA Executive Council (NEC).

Membership:

The Chair of the NEP will be the DUS. When absent, the DUS will appoint an acting chair from the voting members of the NEP. The membership is made up of principal members and advisors. Principal members are the voting members of the NEP, advisors are not. Membership is:

Principals:

Deputy Under Secretary for Oceans and Atmosphere, CHAIR
Deputy Assistant Administrators of
- National Environmental Satellite, Data, and Information Service
- National Marine Fisheries Service
- National Ocean Service
- National Weather Service
- Oceanic and Atmospheric Research
- Program Planning and Integration, pending approval
Deputy Director, Office of Marine and Aviation Operations
Chief Financial Officer
Chief Administrative Officer
Chief Information Officer
Director of Workforce Management Office
Director of Program Analysis & Evaluation
Director of Acquisition & Grants Office

Advisors:

Executive Director to the Deputy Under Secretary
Deputy Directors of
- Education & Sustainable Development
- General Council
- International Affairs
- Legislative Affairs

- Public, Constituent & Intergovernmental Affairs
Military Affairs Advisor

Principals are expected to come to meetings prepared to discuss the strengths and weaknesses of issues brought before the NEP. Advisors are expected to be prepared to contribute to the discussions; however, in most cases they are to serve as observers. There may be occasions when the Chair may call a NEP meeting of 'principals only' in case supporting members are asked not to attend.

Decision Making Process:

Decisions in the NEP will be accomplished by informed consensus. The Chair will strive for consensus on every issue, but because the chair maintains 51% of the vote, the final decision is made by the Chair when consensus is not achieved.

Charter:

The NEP shall meet bi-weekly or at the call of the Chair. Meetings will be arranged by the Office of the DUS in conjunction with DCO. Timely notifications will be sent to NEP membership, by e-mail, specifying meeting date, time, and location. If a principal is not available to attend when an NEP meeting occurs, the principal may designate a voting representative for the meeting. The principal will notify the Chair, the Executive Director to the DUS, and the DCO by e-mail of who that representative will be.

Issues may be put on the agenda by NEP Members or the DCO. Briefing materials for each topic will be distributed at least 2 working days prior to the meeting. If materials are not ready, the issue will be delayed to a future meeting. The agenda will also include time for open discussion on topics that Members may want to raise to the group.

A series of NOAA councils, such as the Education Council, support the NEP by providing their expertise on specific activities across NOAA. Topics will be discussed by the NEP will be reviewed by the appropriate council before coming to the NEP.

The DCO will prepare meeting minutes within 2 working days of a meeting and provide them to NEP members for comment within an additional 2 working days. The minutes will be archived so that there is a record of NEP meetings.

After the meeting minutes are completed, a memorandum from the DUS to the Under Secretary (US), with copies to NEC Members, will document decisions made by the NEP, as well as items referred to the NEC. The US will have one week to provide comments. If no comments are received from the US, a NOAA Action Memorandum (NAM) from the DUS to NEP members will assign duties and deadlines to implement the decisions made by the NEP. Deadlines will be tracked by the DCO. The DCO will also assure that appropriate items are placed on the NEC calendar.

Contact DCO

APPENDIX I

RC CASE ANALYSIS

Meeting One - RC

Focus&Role of Council for Meeting	Advisory to the NEP/NEC, Leading Corporate Research/Science Strategy, Corporate oversight of Research Portfolio
Official Issues Addressed	<p>Review of Action Items</p> <p>Old Business</p> <p>1.1. Managing Testbeds and their Processes – Al Powell, Marie Colton, Greg Mandt (recognized in notes as a discussion/information brief)</p> <p>New Business</p> <p>1. Strategy for Evaluating Recommendations of the External Ecosystem Task Team (eETT) – Steve Murawski (Recognized in notes as a decisional brief)</p> <p>Announcements</p> <p>Actions from the August 15 NEP for the Research Council; Reminder - Version 0.5 of the 5-Year Research Plan has been sent out; comments due to Executive Secretariat by COB on September 29, 2006; Reminder - The 2006 Presidential Early Career Award for Scientists and Engineers (PECASE) announcement has been sent out; nominations are due to Executive Secretariat by COB on October 3, 2006.; Solicitation for Topics for the December 5-6 NOAA Science Advisory Board Meeting;</p>
Unofficial Issues Addressed	
Decisions	<p>Briefing - Strategy for Evaluating Recommendations of the External Ecosystem Task Team (eETT) - (Mtg Min) '</p> <p>With consideration of the comment on how the points are conveyed in the presentation, the Research Council concurred with the presentation with no objections.' [This briefing presentation was approved for presentation to the NEP by the RC]</p>
Actions	<p>Managing Testbeds and their Processes - ACTION ITEM:</p> <p>The joint working group of the Research Council and Transition Board (Al Powell, Marie Colton, Greg Mandt, and additional volunteers) will develop a draft Terms of Reference addressing the joint purpose, definitions, and roles and responsibilities of the two groups regarding testbeds.</p> <p>ACTION ITEM: The joint working group will revise the presentation based on comments given in this discussion and will resubmit it to the Research Council for virtual review prior to the joint Research Council/Transition Board meeting.</p> <p>Announcement/NEP Tasking to Research Council (8.15.06 NEP Mtg) - ACTION ITEM: Terry Schaefer and</p>

	Paul Doremus will draft a memo to BGEN Kelly stating the Research Council's interpretation of the tasks and request concurrence with or clarification of these tasks. This memo will also incorporate the activities best addressed by the CFO Council. (Due: COB Friday, September 29, 2006.)
Impetuses for Activity	<p>Actions from the August 15 NEP for the Research Council (Mtg Mins)</p> <p>The NEP has requested by November 10, 2006 that the Research Council provide recommendations on topics including:</p> <ol style="list-style-type: none"> 1) Identification of resources to transition maturing research to operations in FY07, such as in MADIS and GPS-Met; 2) Whether reprogramming is consuming R&D capabilities to maintain current NOAA operations; and 3) Determination whether under-funding of R&D due to reprogramming/short term budget difficulties is a systematic issue across NOAA, as well as to consider what is the right balance of Research and Development in NOAA; (Mtg Mins) <p>'A large issue is the corporate view of the balance between research and applications. On this topic, the Research Council was asked to develop a NOAA policy on balancing research and operations by January 26, 2007. The Research Council Executive Secretariat is gathering further information on this topic. The Council must also be able to address what NOAA's strategic research approach should be</p>
Selected Text	<p>Research Council Discussion on Brief - Managing Testbeds and their Processes - (Mtg Mins) ' ..A member noted that the role of the Research Council should primarily be oversight rather than direct functional management of projects. Another noted that evaluating the merit of the science involved is more a job for the Line Offices managing and funding the projects rather than one for the Research Council. The value of the Council is not in vetting the science, but rather is in leading the overall NOAA research strategy.'</p> <p>Strategy for Evaluating Recommendations of the External Ecosystem Task Team - (Mtg Mins) ' ...Murawski proposed that the Research Council evaluate the science recommendations while the Ocean Council, in conjunction with the Research Council and the Regional Collaboration Executive Oversight Group, evaluate organizational options such as regional science boards in NOAA. The Ecosystem Goal team would provide input to the Councils regarding planning and programmatic priorities that support reg</p>

Meeting Two - RC

Focus&Role of Council for Meeting	Strategic Guidance on NOAA's Corporate Research Portfolio, Advisory role to corporate science/research activities, A representative of NOAA's Research Perspective to External Entities in the Fed Gov and outside, NOAA Research Liason and tracker to the Federal Government; Impetuses for action
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	came from council members, external entities within the government, from programs/offices within the agency
Official Issues Addressed	<p>Review of Action Items - Review and Development of PPI's Corporate and Goal Analysis of Research</p> <p>Old Business Discussion of Major Comments Resulting from the Review of the 5-Year Research Plan</p> <p>New Business Selection of NOAA Nominees for the 2006 Presidential Early Career Awards for Scientists and Engineers (PECASE) - <u>PECASE Selection Panel Members Only</u></p> <p>Announcements NASA Science Review</p>
Unofficial Issues Addressed	
Decisions	What do they say they decided?
Actions	<p>Review and Development of PPI's Corporate and Goal Analysis of Research - ACTION: Upon its completion, Paul Doremus will distribute for Research Council review the corporate analysis of Research and Development in NOAA.</p> <p>Discussion of Major Comments Resulting from the Review of the 5-Year Research Plan - ACTION: Paul Hirschberg will provide the Research Council a copy of the NWS STIP to examine regarding the approach to the document. ACTION: The Research Council members will each submit 1-3 high-level research questions that could be highlighted in the NOAA 5-Year Research Plan. (DUE: Noon on Friday, October 13, 2006) ACTION: The Research Council Executive Secretariat will revise the Five-Year Research Plan revision timeline and send it to the Research Council.</p> <p>NASA Science Review - ACTION: The Research Council will submit comments on the Science Plan For NASA's Science Mission Directorate for compilation by Paul Doremus by COB Tuesday, October 17, 2006.</p>
Impetuses for Activity	<p>Review and Development of PPI's Corporate and Goal Analysis of Research - (Mtg Mins) Paul Doremus noted that PPI is formulating a corporate and Goal analysis of research and development in NOAA based on information provided in the Research Council section of the Program Operating Plans (POPs). In particular, he intends it to look at planned changes and gap analysis. He would like to provide it to the Research Council for internal review and development at a future meeting.</p> <p>Air Resources Laboratory (ARL) Request for exemption from oversight under the reimbursable research policy - (Mtg Mins) 'A question was asked on the status of Action Item 080106-4 regarding the Air Resources Laboratory (ARL) request for exemption from oversight under the reimbursable research policy. It was noted that the information should be on its way through the OAR chain of command to Dr. Spinrad as Assistant Administrator.'</p> <p>GAO Study on the dissemination of federally funded research results - The Research Council will reserve five</p>

Selected Text	<p>Discussion of Major Comments Resulting from the Review of the 5-Year Research Plan - (Obs Notes) ' GM: I almost prefer to have a document that doesn't have goals or LOs but focuses on a corporate conception of NOAA [i.e., ONE NOAA].</p> <p>RS: [responds to GM] I think we are doing this.' (Mtg Mins)'Instead, content issues are important to consider, including ensuring that key research questions, research tools, and concepts that unify NOAA's research as a single enterprise are addressed.' (Mtg Mins) NOAA as a corporate entity needs to define when to turn to external partners versus when to conduct the research in-house. The document needs to address how to answer NOAA's key mission by coordinated internal and external research activities. The need to strengthen connectivity with other major NOAA documents such as the 20-Year Research Vision and with key external documents such as the ORPP and GEOSS documents was also noted.</p>
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Meeting Three - RC

Focus&Role of Council for Meeting	<p>Corporate consideration of NOAA Research Portfolio, Advisory to NEP; Response to NEP Actions - Determine if under-funding of Research and Development is a systematic issue across NOAA: What is the right balance of R&D in NOAA? (Mtg Mins) Comment by RC member: We should be looking at input, composition, the total portfolio, funding streams. We can cast the questions in ways that will benefit the RC. Develop a NOAA Policy on Balancing Research and Operations (Mtg Mins) Comment: Monitoring research is connected. Do we have all the information we need to make a judgment? Do we reserve certain funding for transformational research, for transition – what is the right balance? And, what is the balance that we currently have?</p>
Official Issues Addressed	<p>Review of Action Items</p> <p>Old Business</p> <ol style="list-style-type: none"> 1. Update on the Response to the eETT Report – Steve Murawski 2. Research Council Response to the NEP Actions – Rick Spinrad 3. Under-funded Transition Projects Priority List Discussion – Rick Spinrad <p>New Business</p> <ol style="list-style-type: none"> 1. Hurricane Intensity Research Working Group (HIRWG) - 2. Draft Summary of NOAA R&D Competitiveness-Related R&D Activities – Richard Spinrad 3. Cooperative Institute Representation to the Research Council – John Cortinas <p>Announcements</p> <ol style="list-style-type: none"> 1. Update on GC Response to Contractors Serving on the Social

	<p>Science Committee – Rodney Weiher</p> <p>2. Quick Update on the status of the 5-Year Research Plan Revision – Rick Rosen</p> <p>3. Next Research Council Meeting is scheduled for Monday, January 29, 2007 in this room</p> <p>Adjourn</p>
Unofficial Issues Addressed	Did they address anything that was not on the official documents?
Decisions	<p>Cooperative Institute Representation to the Research Council - (Mtg Mins) 'This is a decisional brief.' Representation of Cooperative Institutes on the Research Council - Three options were presented for moving forward:</p> <ul style="list-style-type: none"> • Status quo, • Appointing a formal Cooperative Institute representative to provide consensus views to the Research Council, and • Informally inviting members of the Cooperative Institute committee to participate in relevant Research Council meetings. <p>A fourth option was also raised to assign a high-level member of the Cooperative Institute community to the Scientific Advisory Board.</p> <p>ACTION: John Cortinas is to build out Option 3 including additional detail on scalability and implementation strategies.</p>
Actions	<p>2. Research Council Response to NEP Action Items - (Mtg Mins) - a) Identify resources to transition matured research to operations in FY07 (under-funded transition projects) -The RC was to evaluate the list of under-funded projects provided by the Transition Board (MADIS, GPS-Met and HAB Forecasting) and evaluate their respective urgency and their impact on NOAA research for FY07-08. ACTION: RC members have until COB January 3 to provide a ranking and written justification for the ranking to Exec Sec and to Dr. Spinrad. DUE: January 3, ACTION: Dr. Spinrad and Mary Glackin are to jointly submit a memo to the CFO Council that identifies and prioritizes under-funded transition projects for FY07 and FY08, b) Determine if under-funding of Research and Development is a systematic issue across NOAA: What is the right balance of R&D in NOAA? The RC, in coordination with the CFO Council, has agreed to review the Line Office financial information for systemic under-funding of research within NOAA. ACTION: The</p>
Impetuses for Activity	<p>Research Council Response to NEP Action Items (Mtg Mins)</p> <p>- The Deputy Under Secretary would like to know that our research investments in FY10 are sufficient to meet the organization's operational needs in FY15. Draft Summary of NOAA R&D Competitiveness-Related R&D Activities - The American Competitiveness Initiative was proposed to boost basic research in the US. NOAA was not specifically included in the initiative, but Congress has asked OSTP to report back with information on how all USG research can contribute to the ACI. The Research Council has been tasked with creating a two-page briefing memo on how we contribute to US competitiveness in science and technology. Cooperative Institute</p>

	Representation to the Research Council - (Mtg Mins) Interest has been expressed by members of the Cooperative Institute community to be more involved in NOAA decision-making, including representation on the NOAA Research Council.
Selected Text	Research Council Response to NEP Action Items - Develop a NOAA Policy on Balancing Research and Operations - (Mtg Mins) Comment: The FY 9-13 plan deemphasizes research because funding is tight. We need to know what research percentage should be – not a hard and fast rule, but the proper investment. The proper level of investment changes as NOAA's requirements change, so it is hard to frame the issue effectively. (Mtg Mins) DISCUSSION - 'Comment: RC members suggested that we cannot answer task #2 [systematic under-funding of research and development] without first having a basic idea of what we will recommend for this task. Q: This is a policy issue. Do we go with high risk research or with something that leads to an operational product? A: Five-Year transformational research is a part of it.' HIRWG - (Mtg Mins) Dr. Spinrad was concerned that there is nobody from the Hurricane Center represented on the working group. Dr. Atlas indicated that he was aware of the issue and had suggested 3 names from

Meeting Four - RC

Focus&Role of Council for Meeting	Provided a Unique Agency Wide Research Contribution, Strategic Shepherding of NOAA's Research Portfolio, Providing the Agency with information on the most current and pressing science issues/needs; A venue for Research information dissemination and exchange within NOAA and with external entities, Direct NOAA's research; Impetus for action come from the agency's annual business cycle
Official Issues Addressed	Approval of Minutes Review of Action Items Old Business 1. Status Update on the Review of the Decadal Survey – Rick Rosen 2. Status Update on the 5 Year Research Plan – Rick Rosen 3. Update on the Research Council/SAB Meeting on March 7 4. After-Action Report on the Review of the CCSP SAP 2.2 New Business 1. Identification of Topics for State of the Science Fact Sheets – Richard Spinrad 2. Research Council Input on the 10-14 AGM – Richard Spinrad Announcements 1. Review of action items from the CI Director Luncheon 2. NCCOS Draft Human Dimensions Strategic Plan
Unofficial Issues Addressed	Did they address anything that was not on the official documents?
Decisions	What do they say they decided?

Actions	<p>ONGOING ACTION ITEMS</p> <p>The Council discussed progress with respect to the Climate Change Science Program (CCSP) review process guidance memo and timeline (010107-1 & 010107-2). The Council Executive Secretariat has received a draft memo and a final timeline from the CCSP staff. The memo will be revised by staff to reflect recent comments and will be provided to the Research Council to review and approve at the March 12 meeting.</p> <p>The outstanding action item (010107-3) regarding the Air Resources Laboratory's (ARL) request for a waiver on reimbursables needs to move forward. The Chair has tasked the Oceanic and Atmospheric Research (OAR) representative with following up and bringing the task to completion.</p> <p>A Council member indicated that action items 010107-10 and 010207-2 can be closed and rolled into action item 021207-5 on Under-Funding of Research and the Balance of Research, as the fundamental components of this action have been addressed in the Council's response to these NEP actions.</p> <p>The NEP action directin</p>
Impetuses for Activity	<p>Council Input to the Annual Guidance Memorandum (AGM) (Mtg Mins)</p> <p>The office of Policy, Planning, and Integration (PPI) recently held their annual AGM meeting with the NOAA Goal Teams. PPI is seeking to pull their input together and then provide it to the NOAA Councils for their feedback. The Councils are to respond no later than March 19.</p> <p>Update on Ongoing Action Items - (Obs. Notes) RS: 'Any other comments? Final eETT presentation for SAB to satisfy the NEP-NEC [request to update the NOAA Science Advisory Board (SAB) on NOAA's response to the External Review of NOAA's Ecosystem Research and Science Enterprise (eETT)]. Final HIRWG submission is due to the Dep Secretary this week. This is done.'</p> <p>Update on the NOAA Response to the Decadal Survey - (Obs Notes) RS: We need to emphasize our focus is research. CD: What is the timeline again? RR: Draft writing team is supposed to have draft into NOSC next Wednesday Martin Yapur: Full report is due to NRC at the end of May. RS: Is this supposed to be the fully</p>
Selected Text	<p>Update on the NOAA Response to the Decadal Survey - (Mtg Mins) The final response will include Research Council feedback on four recommendations that are of particular interest to the Research Council:</p> <ol style="list-style-type: none"> 1. Overarching Recommendation – to renew investment and restore leadership. 2. Key Questions – These are recognizable in NOAA's research focus areas and

	<p>overarching questions from the 5-Year Research Plan.</p> <p>3. Transition of Research to Operations – Relevant to the Council's role working with the Transition Board and also includes references to the Joint Center for Satellite Data Assimilation.</p> <p>4. Earth System Modeling and Data Assimilation – Another reference to the NOAA Research Plan. Observations must be matched by modeling and data assimilation.</p> <p>These recommendations were selected from the full list for Research Council response based on the extent to they are mirrored in the 5-Year Research Plan for the agency and where the Council could provide a unique agency-wide Research contribution. The other reco</p>
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Meeting Five - RC

Focus&Role of Council for Meeting	Strategic Guidance for Corporate Research, Advisory role, Overseer of NOAA's Corporate Research Portfolio
Official Issues Addressed	<p>Review of Action Items - Status of Reimbursable waiver for Air Resources Laboratory Old Business</p> <ol style="list-style-type: none"> 1. Update on the 5-Year Research Plan 2. Under-Funding and Balance of Research Discussion 3. State of the Science Fact Sheets –Topic Proposals 4. Research Council Input to the Annual Guidance Memorandum 5. SAB Meeting Follow Up Discussion and Action Items - increase communication btw SAB and RC, and SAB involvement in the review of benchmarks for monitoring NOAA research <p>New Business</p> <p>There is no new business scheduled for this meeting.</p> <p>Announcements</p> <ol style="list-style-type: none"> 1. NCCOS Human Dimensions Strategic Plan Review 2. CCSP 4.2 Prospectus Review 3. Next Generation Air Transportation System Briefing
Unofficial Issues Addressed	Did they address anything that was not on the official documents?
Decisions	<p>NEP Request - Systematic Under-funding of Research in NOAA - (Mtg Mins) The Council is now faced with some actions on Systematic Under-funding for the NOAA Executive Panel (NEP). Instead, Exec Sec drafted a memo to the NEP proposes a specific plan and timeline. The deadline for the Systematic Under-funding action is March 30 and the Balance of Research to Application deadline is April 28. The Council feels the right approach is to deal with these as a package, provide some initial information and requirements, then move forward with a process to get the final report to the</p>

	<p>NEP with interim reports in the meantime.</p> <p>This is a <i>decision agenda</i> item. The Council has a little time but does not want to appear to be evading the question. The Council would rather indicate this is a tough question to we would like to respond in a meaningful fashion.</p>
Actions	<p>Status of reimbursable waiver for the Air Resources Laboratory: This action is awaiting action from Craig McLean in Oceanic and Atmospheric Research (OAR). Dr. Atlas will check the status after the meeting. The Chair offered assistance moving this action forward, if needed. Systematic Under-funding of Research in NOAA - ACTION: Exec Sec is to continue to edit and expand on the memo based on this conversation and add references to the 5-Year Plan, the Under-funding briefing, and the performance assessment package. Accelerate the timeframe to complete the final task by September 30. ACTION: Council Members to send Exec Sec comments by the end of this week. ACTION: Exec Sec is to notify BGEN Kelly that our response is coming, but Council members (chair, vice-chair and a few others) would like the opportunity to meet with him. Set up a one-on-one with BGEN Kelly and a select number of interested council members before we go through the NEP. What the Council is proposing is much more comprehensive than the NEP tas</p>
Impetuses for Activity	<p>NOAA 5-Year Research Plan 2007-2011 (Mtg Mins)</p> <p>The Executive Secretariat will send the updated Plan with the Issue Assessment and cover memos to the NEP/NEC later this week in order to obtain approval to release the document for public comment. We will also be asking for approval of the Virtual Town Hall website, is currently under construction. Systematic Under-funding of Research in NOAA - (Mtg Mins) The Council is now faced with some actions on Systematic Under-funding for the NOAA Executive Panel (NEP). There was not opportunity for a separate meeting based on the Council's earlier discussion. Instead, Exec Sec drafted a memo to the NEP proposes a specific plan and timeline. The deadline for the Systematic Under-funding action is March 30 and the Balance of Research to Application deadline is April 28. The Council feels the right approach is to deal with these as a package, provide some initial information and requirements, then move forward with a process to get the final report to the NEP w</p>

<p>Selected Text</p>	<p>NEP Request - Systematic Under-funding of Research in NOAA - (Mtg Mins) Under-funded research has to be examined in the context of all NOAA being under-funded. So we should identify research as part of the whole and determine our 100% requirements and gaps relative to the other parts of NOAA., Looking at R&D as part of the organization, the funding has been stable, so looking at research to operations relationally is more important. The real issue is very difficult to parse out and cannot be answered in the abstract. NOAA cannot have a particular balance of research and operations. The balance must be determined with the strategic intent involved. (Mtg Mins) Suggested Way Forward - w/Underfunding of Research - 'More importantly, if the Council does everything it is indicating, how will NOAA use the information? This poses a significant change for the Council and our review processes. Thus far the Council has not had the strategic import that it could. A year from now, will the Council be true t</p>
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APPENDIX J

NOC CASE ANALYSIS

Meeting One - NOC

Focus&Role of Council for Meeting	Part of the NOC's Job is to work with committees outside NOAA - such as SIMOR, JSOST, USCOP to set Ocean Policy; Advisory Role (see decisions below - ORPP, Ocean Hall - for advisory roll); Lead Corporate Coordination efforts to address ocean policy issues	
Official Issues Addressed	<p>2. Priority Issue A: NOC Planning for FY 2007</p> <ul style="list-style-type: none"> • Report on 2006 Milestones • Review Draft FY 2007 Annual Management Plan • Background Memo from Jack Kelly to Council Chairs • Review Draft 2007 Milestones • Review Draft 2007 Operational Calendar • Review Draft Revised Terms of Reference <p>3. Priority Issue B: Ocean Research Priorities Plan Update</p> <ul style="list-style-type: none"> • Presentation and discussion on ORPP <p>4. Priority Issue C: Discuss Program and Fiscal Guidance from PA&E</p> <p>5. Priority Issue D: External Ecosystem Task Team's Report</p> <ul style="list-style-type: none"> • Discuss NOC roles in implementation of recommendations <p>6. Ongoing NOC Business</p> <ul style="list-style-type: none"> • Smithsonian Ocean Hall Update Flanders • Budget Discussion • 95% Review Update • SIMOR • JSOST • Legislative Update • ICOSRMI • IOOS Update • Gulf of Mexico Alliance 	
Unofficial Issues Addressed	Did they address anything that was not on the official documents?	
Decisions	<p>ORPP- The NOC will coordinate with the Research Council to provide comments on the ORPP through SIMOR.</p> <p>eETT - The NOC agreed with a two phased approach to move forward in collaboration with the Research Council on the recommendations from the eETT report.</p> <p>Ocean Hall - The NOC Co-Chairs will raise the need for FY 08 Ocean Hall funding to the CFO Council</p>	
Actions	2006 Milestones Report	

	<p>Submit additional comments on the 2006 Milestones Report to NOC Staff</p> <p>2006 Milestones Report When memo is finalized, the NOC Co-Chairs will sign the memo and send to the VADM as well copy the NEP and NEC.</p> <p>Annual Management Plan Identify a Liaison to work with the Council on Executive Oversight Committee focusing on regional collaboration.</p> <p>Annual Management Plan Revise Annual Management Plan with input from PPI.</p> <p>Annual Management Plan Submit additional comments on AMP to NOC staff</p> <p>Annual Management Plan Submit Final NOC AMP to PPI</p> <p>2007 Milestones Submit additional comments on milestones to NOC staff</p> <p>Operational Calendar Submit additional comments on calendar to NOC staff</p> <p>Terms of Reference Submit additional comments on Terms of Reference to NOC staff</p> <p>ORPP Send Point of Contact List to NOC members</p> <p>ORPP Meet with Research Council Chair to discuss comments on ORPP</p> <p>Program Guidance Submit comments on Program and Fiscal Guidance to NOC Staff</p> <p>Program Guidance Invite Goal and Sub-Goal Team L</p>	
Impetuses for Activity	<p>Annual Business Cycle, Advisory Role - NOC Planning FY 2007/2007 Operational Mtg Calendar - Staff stressed the need for NOC members to submit comments on this calendar, even if they are unsure of exactly when NOC input will be needed, it is better to get any NOC responsibilities on the radar screen in a proactive manner. eETT Report - (Mtg Min) The Research Council and NOC have been tasked to develop a draft implementation strategy for both the eETT recommendations and re-structure and report to NOAA leadership in four months.</p> <p>Smithsonian Ocean Hall - (Mtg Mins) The Ocean Hall Team has requested NOC approval to bring an FY08 Ocean Hall funding requirement to the CFO Council. <i>Decision:</i> the NOC Co-Chairs will raise the need for FY 08 Ocean Hall funding to the CFO Council</p>	
Selected Text	<p>Smithsonian Ocean Hall - Example of how larger structure of the Federal government has an impact and must be navigated by NOAA and by the Councils - The Ocean Hall Team has requested NOC approval to bring an FY08 Ocean Hall funding</p>	

	<p>requirement to the CFO Council. The Department removed the original FY08 request (\$1.2M) from the FY08 pass-back. These funds were going to support key NOAA obligations such as the Kiosk and Portal. NOC members discussed the importance of NOAA's involvement in this project NOC Planning for FY 2007 - 2006 Milestone Report - (Mtg Mins) Mary Glackin suggested this</p> <p>transmittal letter highlight significant accomplishments of the NOC in 2006. Two such accomplishments are tracking under the Ocean Action Plan and the activities related to the Smithsonian Ocean Hall. The NEP and NEC will be copied on this memo to the VADM.; 2007 Annual Management Plan - (Mtg Mins) 'NOAA leadership has requested Councils submit 2007 Annual Management Plans to PPI by November 6th. The Plan outlines the major</p>
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Meeting Two - NOC

Focus&Role of Council for Meeting	Corporate concern, insuring one NOAA voice, Advisory Role, LO coordination, Federal Ocean&Coastal Policy, Insuring that NOAA's Ocean Priorities are met in the planning and budgeting process
Official Issues Addressed	Review and Discuss Program Plans - Goal Teams (EGT, WW, CT, Clim), Legislative Agenda 110th Congress, Ocean and Coastal Satellite Observations, Update on External Ecosystem Task Team Report, Ongoing NOC Business, Other Business (NOAA AUVs, ORPP, eETT)
Unofficial Issues Addressed	Did they address anything that was not on the official documents?
Decisions	Satellites - The NOC requested the NOAA reps bring the issue of Ocean and Coastal Remote Sensing to the JSOST
Actions	<p>Program Plans Send comments to staff on Program Plans</p> <p>Legislative Agenda Write One-Pagers for NOAA Legislative Priorities</p> <p>Legislative Agenda Send list of legislative priorities to the NOC</p> <p>Satellites - Update NOC on progress of working group ongoing</p> <p>eETT Report - Send SAB Report to NOC members</p> <p>AUVs - Add agenda item to future NOC meeting to discuss AUV oversight</p> <p>ORPP Send summary of public comment to NOC</p> <p>Hydrography Add agenda item to discuss KDP 1</p>
Impetuses for Activity	NOC Involvement in legislative Agenda for 2007 - The DOC issued a tasking memorandum to the Office

	<p>of Legislative Affairs (OLA). In turn, OLA has asked the Line Offices to submit their legislative priorities for the 110th Congress by November 9th. The NEP/NEC will then virtually review the proposals and prioritize them for the Admiral to ensure his final decisions can be made and submitted to the Department by November 17th. Update on the eETT Report - (Mtg Min) Steve Murawski gave an update on the eETT report. He and Paul Doremus met to discuss strategy for the initial drafting of the response to this report. Line Office reps will be involved in the second stage after the initial response has been drafted to flesh out the recommendations. By the end of November, they hope to have a draft product. In January, the NOC should report to the NEP/NEC. Other Business (AUVs, ORPP, eETT) - The NOC Co-chairs met with Dr. Spinrad, Chair of the Research Council (RC) to discuss a number of issues including AUVs, the O</p>
Selected Text	<p>W&W Team Program Plan Presentation - (Mtg Mins) NOC members discussed the One NOAA Enterprise Information System in the Program Plan. They stressed the need for Weather and Water to coordinate with other goals on this system and that one system may not work for everyone.</p> <p>W&W Team Program Plan Presentation - (Mtg Mins) A number of activities are covered under community resilience and IOOS in the Program Plan. NOC members noted that the Goals should present what the funding will go towards (i.e. products) instead of the vehicle to get there (funding of regional association).</p> <p>Ocean and Coastal Satellite Observations - (Mtg Mins) At the last NOSC meeting, the NOSC Co-chairs recognized that a broader effort to define the "Way Ahead" was desirable and assigned the following actions: NOS to establish a working group with senior representatives from NOS, NMFS/Ecosystems, NWS/W&W, OAR and possibly outside agencies e.g. NASA, to develop a plan and provide guidance. NOC members asked that all line offices hav</p>

Meeting Three - NOC

Focus&Role of Council for Meeting	<p>Advisory to the ADM, NEP/NEC; Inter/Intra Agency coordination/Collaboration on ocean policy and related activities; Insure Corporate Input on Ocean Issues; Keep abreast of National and International Ocean Policy Issues-Activities; Insuring One NOAA voice on issues</p>
Official Issues Addressed	<p>Issue A: Legislative Agenda</p> <ul style="list-style-type: none"> • Discussion led by Steve Leathery and Glenn Boledovich • Overview of opportunities for NOC involvement

	<ul style="list-style-type: none"> • Core principles to include in NOAA legislation <p>Issue B Hydrography KDP 1 Brief for the NEP/NEC Issue C: External Ecosystem Task Team Report</p> <ul style="list-style-type: none"> • Report on the NOC and RC response to the NEP <p>Ongoing NOC Business • Planning for Ocean Partnerships Broad Agency Announcement (NOPP)</p> <ul style="list-style-type: none"> • ICOSRMI Sullivan • AUV Working Group update • Ocean Action Plan update • SIMOR (written) Glackin Tab 6 • JSOST • IOOS • Smithsonian Ocean Hall
Unofficial Issues Addressed	Did they address anything that was not on the official documents?
Decisions	<p>Hydrography Contingent on final approval by PPI and the Co-Chairs, the NOC has approved the Hydrography KDP 1 briefing to go to the NEP/NEC.</p>
Actions	<p>Legislative Agenda - Add Agenda item to give an overview of the CZMA legislative process and timeframe.</p> <p>Legislative Agenda - Develop and distribute a calendar of key dates for legislative activity</p> <p>Legislative Agenda - The NOC Co-Chairs to meet with Eric Webster from OLA and bring a straw-man of ways the NOC feels they can add value to the legislative process and themes they would like to see in legislation.</p> <p>Hydrography - Finalize KDP 1 Brief with PPI and PA&E</p> <p>eETT Report - The NOC/ Research Council Joint working group will meet with Steve Murawski and Paul Doremus and provide recommendations on the External Ecosystem Task Team Report at the February 2007 NOC meeting.</p> <p>Planning for the Ocean Partnerships BAA - Send out a history of the process and prior funding commitments to the NOC members.</p> <p>ICOSRMI Update - Invite the Coastal States Organization to speak with the NOC to discuss their future agenda and items of interest.</p> <p>ICOSRMI Update - Forward the Federal Register Notice calling for nominees for the external</p>
Impetuses for Activity	<p>Legislative Agenda - (Obs Notes) Glenn Boldevich: 'My consideration is the politics of strategies. The councils role, if we can anticipate there will be a big hearing or big Ocean Bill we should provide guidance on what the legislation should cover.' KDP1 Brief on Hydrography - BM</p>

	(to NOC and esp. Zdenka) (Obs Notes): '....you need to pass KDP1 but within the NEP's acceptable format.' Legislative Agenda - (Mtg Mins) 'Some general considerations are that the NOC is an advisory body to the Admiral and the NEP and the NEC, how can the NOC add value to the process when OLA, NOAA Budget and the LOs have all been playing a role already? The NOC probably doesn't want to be involved in the day to day activities, but should be anticipatory in setting direction. Report on ISCORMI Meeting (12.13.06 MG) (Mtg Min) - The entire passage in the minutes illustrates NOCs' role as tracker of Ocean Policy and Activities) ' The State department thanked the NOC for the comments on the Extended Continental Shelf paper.'
Selected Text	Legislative Agenda - (Mtg Mins) Members felt the NOC should be the forum to discuss ocean policy issues, including legislation, and make recommendations to the VADM and the NEP and NEC. Members stressed the need to be anticipatory and think strategically about issues that will be coming up in the future. ISCORMI Mtg/Extended Continental Shelf Working group - The NOC discussed the need for greater coordination across NOAA in order to represent the full range of NOAA interest and expertise, and convey coordinated NOAA views to the newly formalized ECS working group. The NOC accepted NOS's offer to lead the NOC effort to identify and coordinate NOAA participation. Future Issues/Continuing Resolution - (Mtg Mins) 'The NOC discussed if they should be involved in discussion concerning the continuing resolution. It was decided that issues was more appropriate for the NEP and NEC to discuss.' (Obs Notes) 'JB: [Wrap up – Agenda for January] [question directed to MG] Is there any recipe for funding under the continuin

Meeting Four - NOC

Focus&Role of Council for Meeting	Advisory, Coordinating ONE NOAA stance on Ocean Policy Issues, Examining/considering/contributing to National Ocean Policy
Official Issues Addressed	Draft Agenda Issue A: Legislative/Policy Issues Dunnigan CZMA Reauthorization and Coastal Visioning Process (1:35-2:20) Tab 1 <ul style="list-style-type: none"> • Briefing by Dave Kennedy (NOS/OCRM) and Kacky Andrews (Costal States Organization) • NOC discussion of involvement and input/guidance to the process Implementation of new NOAA Laws (2:20-2:55)

	<ul style="list-style-type: none"> • Marine Debris Strategy for implementation Tab 2 • Magnuson-Stevens Reauthorization Strategy for implementation Tab 3 • NOC discussion of involvement and input/guidance to the process <p>Introduction of Legislation to the 110th Congress (2:55-3:05)</p> <ul style="list-style-type: none"> • Update on Introduction of Hydrographic Services Improvement Act Tab 4 • Discussion of NOC Review of The Ocean Conservation, Education and National Strategy for the 21st Century Act (Oceans-21) Tab 5 <p>Issue B: NOAA's Regional Collaboration Efforts - Balsiger</p> <ul style="list-style-type: none"> • Margaret Davidson will give a briefing on the regional collaboration efforts that will be discussed at the SES Summit with a focus on the Coastal Resiliency Theme <p>Ongoing NOC Business</p> <ul style="list-style-type: none"> • Update o
Unofficial Issues Addressed	Did they address anything that was not on the official documents?
Decisions	<p>Oceans 21 - The NOC will facilitate the Review of H.R. 21 for NOAA; Extended Continental Shelf Interagency Working Group - John McDonough (OAR) will lead NOAA's internal technical group to coordinate the mapping requirements/capabilities for the EEZ extension work. The internal group will consist of representatives from the LOs that have an interest in this work. OAR, NMFS, and NOS will all send a senior representative, who will share a common NOAA view, to the State Department meeting on Feb. 1.</p>
Actions	<p>CZMA/ Visioning Process Provide a Line Office contact for the Coastal Visioning process to Dave Kennedy</p> <p>Magnuson-Stevens Act Send the list of implementation items and time-frames for MSA to the NOC.</p> <p>Oceans 21 Legislation Provide Line Office comments on H.R. 21 to NOC Staff by February 10th. NOC staff will compile these comments and send to OLA.</p> <p>Oceans 21 Legislation Manage a team to draft a document with NOAA level comments and stated principles for NOC review. NOC members should nominate people for this legislative review team who will be available for follow up throughout this Congress.</p> <p>New NOAA Legislation Provide updates to NOC members on tier one legislation</p> <p>Response to the SAB Update the NOC on the progress report to the SAB for their March meeting.</p> <p>ORRAP Nominations Provide nominations for ORRAP to NOC staff.</p> <p>JSOST Update</p>

	Update the NOC on options for Deep Sea Coral coordination at the interagency level. ECS Working Group Provide an update on the IWG meeting.
Impetuses for Activity	CZMA - (Mtg Mins) Revision of Major Ocean Policy in NOC's purview, need council to help coordinate NOAA effort. MSA (Mtg Mins) - Revision of Magnusson, council can help promote One NOAA approach/coordinate within agency, MSA, Marine Debris - Major legislation; HR 21 Glenn and Steve Leathery have discussed a review process of this bill with OLA and proposed that review and analysis of this bill go through the NOC. NOAA's Regional Collaboration Efforts - Margaret Davidson gave the NOC a preview of the discussion that will be taking place at the SES Summit on Coastal Resilient Communities. Update on NOC and RC to provide response to SAB - (Mtg Min) The NOC and Research Council have been tasked by General Kelly to prepare a written response for delivery before the fall 2007 SAB meeting to the final SAB report "Evolving an Ecosystem Approach to Science and Management throughout NOAA and its Partners." SIMOR UPDATE - (Mtg Min) 'this [SIMOR] meeting was canceled, so Mary took the opportunity to brief the NOC on a m
Selected Text	CZMA - (Mtg Mins) 'Questions for the NOC are; how can the CZMA become more tied to the states and how can the Act help NOAA coordinate across Line Office's? Dave and Kacky asked for Line Office points of contact to keep everyone in the loop., (Obs Notes) JK: 'Thanks, We [NOC] want to lead NOAA. Clearly CZMA is a high priority for the organization. This is not something we owe by January 18th. We will take our time to scope the issue. What should the future of Coastal Management be – to build a law? We will work with OCRM and Kacky to do this.' , (Obs Notes) Kacky Andrews - How is the CZMA relevant to NOAA programs?', (Obs Notes) Dave Kennedy: You make a good point. ... How many people use CZMA to do something on the coast? Coastal Zone Management efforts in NOAA and elsewhere are not well coordinated to date. This stops us from telling a good story to Congress.'; Introduction to New Legislation into the 110th Congress - NOC ROLE (Mtg Mins) - A rigid definition of what the NOC role will be was not decided o

Meeting Five - NOC

Focus&Role of Council for Meeting	Advisory, Lead NOAA Ocean Policy, Coordinate Corporate NOAA response, Proactively look at Policy trends, Insure that Ocean Policy needs are Attended to (not swept under the rug) - Champion of Ocean Policy, Several Comments on Telling a good story
Official Issues Addressed	Issue A: NOC Discussion on the Annual Guidance Memorandum Issue B: NOAA Response to the National Research Council

	<p>Decadal Survey</p> <ul style="list-style-type: none"> • Presentation by Gerald Dittberner (NESDIS) • Discussion on NOAA process for responding to the NRC Report • NOC input on response to ocean issues/recommendations in the Report. <p>Ongoing NOC Business</p> <ul style="list-style-type: none"> • Update on NOC and NRC Task to provide response to the SAB • Update on Final Ocean Research Priorities Plan • Ocean Action Plan Update • FY08 Budget Request Announcement • Update on Inter-agency meeting of Extended Continental Shelf Working Group • Legislative Updates □□ <p>Aquaculture Act Marine Mammal Protection Act Coral Reef Conservation Act National Marine Sanctuaries Act</p> <ul style="list-style-type: none"> • JSOST • IOOS
Unofficial Issues Addressed	Did they address anything that was not on the official documents?
Decisions	What do they say they decided?
Actions	<p>Annual Guidance Memorandum</p> <p>NOC staff will set up interviews with the principals to gather feedback on the AGM. Advisory members of the NOC are welcome to submit input via email. Staff will compile responses and send back to members for final discussion at the March meeting.</p> <p>Response to the Decadal Survey Report</p> <p>Circulate the first stage draft response to the NOC for comments.</p> <p>Response to the Decadal Survey Report</p> <p>Submit nominations for the NRC panel with an ocean background to the NOSC.</p> <p>OAP update</p> <p>Look through the CEQ Report and highlight any areas of interest the NOC should be kept abreast of. (Mtg Min): 'There are lots of places where commitments have been met and she does not see any problem areas for that the NOC needs to follow up on. The OAP should be scanned to see if there are any upcoming issues that the NOC should be aware of, such as the MPA framework.'</p> <p>Extended Continental Shelf IWG</p> <p>Provide informational briefing for NOC on ECS efforts for a future NOC meeting.</p> <p>Extended Continental Shelf IWG</p> <p>Exami</p>
Impetuses for Activity	AGM (Mtg Mins): 'The Councils have not specifically been asked for their input before this year's AGM is drafted,

	<p>however, since this is a milestone, the NOC should determine if there are any major changes or priority areas that they should recommend are included in the AGM.', (Mtg Mins): Steve Murawski made the point that the President's 08 budget request has changed the starting points for many projects and identified new priorities and timelines. This is an opportunity for the NOC to get involved and discuss these implications at the start of Planning.: NRC Decadal Survey Report (Mtg Mins): 'The NOSC is taking the lead on providing the NOAA response to this report with help from the Research Council and the NOC. The NOSC formed a working group team to participate in this response and asked the NOC to provide an as-needed member. The NOC Co-Chairs asked Marie Colton to fill this role. ', 'The question was asked if the panel who works on these reports can be changed to incorporate someone with an ocean persp</p>
Selected Text	<p>NRC Decadal Survey Report (Mtg. Mins): 'Jack Dunnigan asked what is the scope of the comment that NOAA can make here? The requirements of the wet side of NOAA always seem to take second place to the dry side. There is not an ocean focus in the report. How can we best articulate that point in the NOAA response in an effective way?',(Mtg. Mins) 'Additional comments from NOC members on the report were that the NRC report was woeful and inadequate on ocean issues and totally missed the mark on requirements. The NOAA response should reflect that. The role for the NOC is to emphasize the lack of ocean issues and there should be an opportunity to re-visit the priorities on the wet side.' Update Ocean Research Priorities Plan - The President's Science Advisor, John Murburger, releases a memo each year with ocean priorities. This memo should be distributed to the NOC when it is available to compare with NOAA's ocean priorities. NOAA should identify priorities that require multi-agency collaboration. The AGM should r</p>

APPENDIX K

NEP CASE ANALYSIS

Meeting One - NEP

Focus&Role of Council for Meeting	NEP Role is one of corporate oversight, focusing on organizational policy, ongoing activities. There is a repeated concern that NOAA and the NEC should be identifying the strategic direction the agency should take with regard to Workforce Planning (what skills will our workforce need in 20 years, this entails NOAA knowing what it will be doing in 20years, have an understanding of its future direction)
Official Issues Addressed	<p>Issue 1 - NOAA Workforce Planning Policy (decision brief) ISSUE –NOAA is facing significant human capital challenges and lacks a consistent workforce planning approach to address the challenges in a uniform or integrated manner throughout NOAA. DESIRED RESULT –A NOAA workforce planning policy that will provide a framework to: ensure interpretability and comparability of results across NOAA; facilitate reporting to reporting to DOC/OPM/OMB; and ensure uniform, useful NOAA-wide planning products. The Impetus behind this brief and the call for a decision comes from statements in the AGM and as a result of discussions at the most recent Senior Executive Service (SES) Summit.</p> <p>Issue 2 - Transition Board Status (informational brief) ISSUE - This Informational briefing will provide the NEP with a Transition Board update and status of NOAA's transition of research to applications process and projects. DESIRED RESULT - The information presented in the briefing will provide the NEP with a better understanding of th</p>
Unofficial Issues Addressed	
Decisions	<p>Workforce Man - NEP Accepted the Workforce Management Policy with the condition the Human Capital Council would return to the NEP with an implementation plan and schedule along with cost estimates presented to the CFO Council</p> <p>Transition Board - No Decisions or Actions resulted from this briefing</p>
Actions	Workforce Man - Human Capital Council was tasked to develop an implementation plan and schedule for the Workforce Management Policy after the BPR Implementation Update.

	Transition Board - No Decisions or Actions resulted from this briefing
Impetuses for Activity	<p>Workforce - The Impetus behind the Workforce Planning Policy brief and the call for a decision comes from statements in the AGM and as a result of discussions at the most recent Senior Executive Service (SES) Summit. The briefing presentation states on the purpose slide – NEP should decide issue due to NOAA-wide implications. The background slide states a that Workforce... is a key focus of external stakeholders OMB, GAO, OPM; as well as a DOC Focus, supported in a Legislative Act (Chief Human Capital Officers Act), President's management Agenda</p> <p>Transition Board - No explicit impetuses were given (possibly motivated by the tran board and MG to show progress/accountability) – Mary Glackin presented the NEP with a status of NOAA's Transition Board to provide a better understanding of the Board's progress to date, transition lessons learned, and outline the Board's FY07 Activities. Interview Participant -states that the brief came forward because the DUS requested it as he wanted to see what the transition board was</p>
Select Passages of Text	

Meeting Two - NEP

Focus&Role of Council for Meeting	The NEP engages an oversight role in this meeting, how NOAA should implement/engage DOC/OMB PII policy; how effective are the councils, what are the issues with them, should we take a further look at their workings; How does Aviation and Weather work with a 20% cut and improve services, what Next steps should they be taking; Does the NOAA functional model have utility, will it disturb the status quo that is based on the Business Model Developed by the VADM, what is its utility
Official Issues Addressed	<p>NOAA Personally Identifiable Information Policy Discussion- The DOC & OMB definition of PII too broad to effectively execute against. A more clear definition of PII needed; NOAA Council Structure Discussion - Discussion of NOAA Council Structure NOAA Executive Panel action October 25, 2006: DUS and Kelly Quickle will meet to discuss strategy for Council updates to the NEP and to require the NEP to address the rationale of the NOAA Council Structure within 30 days; Status on Aviation Weather (20% FTE Reduction in Center Weather Service Units) - Request from Mike Sammartino, Director of Systems Operations, Federal Aviation Administration (FAA) Air Traffic Control System Command Center (ATCSCC) for improved services and 20% reduction in FTE cost at the CWSUs located in FAA's 21 Air Route Traffic Control Centers. NWS sent proposal to Mr. Sammartino on 10/30/06 and</p>

	briefed him 11/2/06; NOAA Functional Model - NOAA lacks a holistic description of its work o What does NOAA produce? o How does NOAA produce and provide
Unofficial Issues Addressed	
Decisions	NEP Approved the NOAA Functional Model
Actions	<p>Personally Identifiable Information - CIO will disseminate guidance NOAA-wide on storage of PII according to November 6th Deputy Secretary of Commerce memorandum as soon as possible.</p> <p>Craig Mclean (OAR) and Marybeth Ward (OGC) will assist Bill Turnbull (CIO) on developing implementation guidance according to the OMB definition of PII</p> <p>Council Structure - Paul Doremus (PPI) and Craig Mclean (OAR) will examine NOAA's current Council Structure and return to NEP with Alternatives for making the Councils more effective.</p> <p>Status on Aviation Weather Briefing - No Decisions or Actions resulted from the Status on Weather Aviation Briefing</p>
Impetuses for Activity	<p>Personally Identif Info - from DOC/OMB activities (PII)</p> <p>Status on Aviation - Request from the Federal Aviation Administration (air traffic control),</p> <p>Council Structure - DUS/NEP self driven investigation into councils</p> <p>Functional Model - UnSec/DUS interest in Functional model</p>
Select Passages of Text	

Meeting Three - NEP

Focus&Role of Council for Meeting	Review the FY 9-13 program plan as put forth by Program Analysis and Evaluation Office (BM) to determine if it can be approved by the NEP or if it needs to be reviewed by the NEC. This meeting engages the NEP's triage/vetting role for the NEC, oversight role, and strategic implementation. The NEP also shows concern for extraNOAA parties in the composition of the program plan on what this indicates to the 'Hill' and how they need to frame some parts of the plan for the DOC. During the brief participants expressed concerns about the focus and scope of activities, the level of funding and the distribution. see Computing discussion
Official Issues Addressed	FY 09 - 13 Program Plan - Decision Briefing - PA&E has analyzed the program plans, used all input received, including comments from the November 16 NEP/NEC, and

	has developed the FY 09-13 NOAA Program. This brief provides specific programmatic detail on how NOAA is supporting its priorities outlined in FY 2009-2013 Annual Guidance Memorandum and Provides detail on significant issues. NEC recommendations on these issues will be used in the development of the Program Decision Memorandum (PDM).
Unofficial Issues Addressed	
Decisions	The Office of the Chief Information Officer will provide amplifying information on IT Security C&A Support issue to PA&E before the NEC.
	Note - This decision implies that the NEP has decided that PA&E should present their Program plan brief to the NEC. This decision is supported in the observational notes - see while various members call for NEC review, it seems that the Council Lead JK has makes the decision in light of others comments.
Actions	No official actions noted on the NDM
Impetuses for Activity	Annual Corporate Business Activity_Corporate Oversight of Program Activities and Support for FY 9-13_ The program plan takes the activities developed in planning, determines their logistical detail and the specific resources needed to support this plan.
Select Passages of Text	In a discussion regarding the basis for developing a program plan the NEP lead distinguishes this activity (and the objective of the programming phase) from the next PPBES phase budgeting JK: (Obs Notes) 'What are the priorities for this in comparison to the budgeting conversation. We need to recognize we are having a programming discussion.' (pg8)

Meeting Four - NEP

Focus&Role of Council for Meeting	Addresses Corporate, National, International Issues (GEOSS, USGEO) – Oversight Role In this meeting members, led by JK, assess the status/progress of two corporate initiatives with National and International consequences. This meeting encompasses two briefs after revisions (based on commentary in this meeting) will be presented to the NEC. NEP members conduct an assessment of the projects – what is happening, their extent scope, NOAA's activities, Funding and data commitments, coordination within agency/with stakeholders/with international partners, NOAA's role; consider issues that may arise if the US/NOAA offers unmodified observational products to all countries involved – are they issues we need to be concerned with; focus on coordinating multitude of disparate efforts, as well as NOAA planning (PPBES) with GEO
Official Issues Addressed	US Efforts on GEO (Group on Earth Observations) -

	Update on U.S. Efforts on Earth observations; Progress in the United States Group on Earth Observations (USGEO) and the upcoming GEO Summit; USGEO Activities (United States Group on Earth Observations) - Per request of the Deputy Undersecretary, provide an update on NOAA GEOSS efforts
Unofficial Issues Addressed	
Decisions	<p>US Efforts on Geo – Slide 16, last bullet “Main activity for GEO is GEO Summit in November 2007”, DUS suggested changing the bullet to read: “Main activity for GEO Summit is GEO Summit in November 2007”</p> <p>USGEO Activities – Both briefings are to proceed to the NEC after addressing the following points:</p> <ul style="list-style-type: none"> • Helen Wood will include more specificity on GEOSS in the Americas • Greg Withee will make the following change: Slide 16, last bullet “Main activity for GEO is GEO Summit in November 2007”, DUS suggested changing the bullet to read: “Main activity for GEO Summit is GEO Summit in November 2007” <p>Helen Wood will brief Charlie Baker on the funding arrangements for GEONETCast.</p>
Actions	Helen Wood will provide DUS with a one-pager detailing the plan for providing GEONETCast services for the Americas
Impetuses for Activity	<p>Impetuses for Action/Vetting-Triage for NEC, Upcoming Summit, Window of Opportunity, NOAA Leadership on International Issue – International project – GEOSS, GEONETCast Services for the Americas, Need to oversee the projects, review their status and direction prior to NEC briefings – USGEO Activities and US Efforts on GEO</p> <p>Impetuses for action - Window of opportunity – ‘we have got to get the policy- GEO Policy - done within a year’ - when Conrad leaves unless there is momentum the policy will die; Need to get the US President’s buy’in - (see official minutes – ‘political turnover we have about a year’) – ‘we want a strategy to make this happen within 1 year’</p>
Select Passages of Text	

Meeting Five - NEP

Focus&Role of Council for Meeting	The council engages a corporate oversight role and triage for the NEC. The NEP is frequently concerned with insuring that a corporate perspective was taken on the issue (all parties consulted, contributed, considered). They engage three general areas - strategic implementation, acquisitions, and operations. The focus on strategic implementation was brought to the fore In the Broglie Member Check session, and is evident in discussion of NOAA Center for Weather and Climate Prediction brief by Uccellini. The NCWCP brief also touches on the acquisition focus. The NE-Panel under Kelly's lead sought to insure that NOAA was maximizing its use of this opportunity NCWCP so that strategic objectives were accounted and that a corporate approach was taken - JK directed RS to insure that the proposed activities/functions of the center were based on a '...Corporate point of view for strategic direction of NOAA's Research' (i.e., all research, not just OAR). RS and the Research Council need to define NOAA's interest in th
Official Issues Addressed	<p>Issue 1) DOC General Counsel Introductions - Introduction of some Key DOC General Counsel Personnel/brief discussion about working with them and their accessibility , Issue 2) NOAA Councils - (Discussion Briefing)</p> <p>“...examine NOAA's current Council Structure and return to the NEP with alternatives for making the Councils more effective”.</p> <p>(Action item from 26 December 2006 NDM)</p> <p>, Issue 3) NCWCP Building - Invited Information Brief to:</p> <ol style="list-style-type: none"> 1) Define NOAA Center for Weather and Climate Prediction (NCWCP) Project 2) Increase awareness of the opportunities associated with the collaboration of the NCWCP with the research community and the University of Maryland's M Square Research Park
Unofficial Issues Addressed	
Decisions	<p>Issue 1) DOC General Counsel Introductions - 'No Decisions or Actions resulted from this briefing' , Issue 2) NOAA Councils - (Discussion Briefing)</p> <p>Decision: Paul Doremus, Craig McLean, and Steve Gallagher were charged with preparing the NEC briefing on the NOAA Council Structure. DUS agreed to assist.</p> <p>, Issue 3) NCWCollegePark Building - Decisions and Actions: DUS directed Dr. Spinrad and the Research Council to define what NOAA needs to receive as part of the MOU with UMD to ensure a real partnership and to provide a corporate point of view for strategic direction of NOAA Research, whether OAR, NWS, or NOS. DL Johnson and John Jones were also directed to engage this topic.</p>
Actions	<p>Issue 1) DOC General Counsel Introductions - 'No Decisions or Actions resulted from this briefing' , Issue</p>

	<p>2) NOAA Councils - (Discussion Briefing) No Actions,</p> <p>Issue 3) NCWCP Building - Decisions and Actions: DUS directed Dr. Spinrad and the Research Council to define what NOAA needs to receive as part of the MOU with UMD to ensure a real partnership and to provide a corporate point of view for strategic direction of NOAA Research, whether OAR, NWS, or NOS. DL Johnson and John Jones were also directed to engage this topic.</p>
Impetuses for Activity	<p>DOC General Counsel Introduction - '(Obs Notes) JK: Since most people don't understand what the DOC Lawyers do, and who they are, we are introducing them.' to familiarize NEP members with the DOC General Counsel and the services/areas they work in; to make legal counsel more accessible. Although not mentioned in the official documents this somewhat impromptu GC introduction came on the heels of an ethical legal incident. The incident involved funding the attendance (transport, etc.) of NOAA's leadership (including the VADM) to a NOAA 200th Celebration Function in Virginia. It came out at a meeting (either this one or a previous NEP mtg) via General Kelly that there was a last minute concern about how this should be paid for. JK implied that this should have been taken care of well in advance. It seems as though this introduction was intended to get NOAA DAA familiar with DOC GC and to get them to use their legal services more proactively. NOAA Council Structure (Discussion Brief) - (Official Mtg Minutes) '</p>
Select Passages of Text	<p>NCWCP - ' (Meeting Mins)....DUS commented the time to express concern was a year and a half ago when we had the attention of Steny Hoyer (D-MD), Sam Bodman (Former DoC Deputy Secretary) and the University of Maryland President. Council Structure - (Obs Notes) 'JK: What do we want to do? That is the question. Their conclusions can only be tackled by the NEC.' Kelly asserts that the conclusions of the review and analysis of the Council Structure can only be substantively addressed by the NEC. The NEC makes decisions regarding NOAA's Corporate Structure.</p>

APPENDIX L

NEC CASE ANALYSIS

Meeting One - NEC

Focus&Role of Council for Meeting	Strategic Implementation, Corporate,
Official Issues Addressed	<p>Incident Command System (informational brief) Capt. Phil Kenul, Director for NOAA Homeland Security presented an informational briefing on the Incident Command System (ICS); NPOESS Senior User Advisory Group (decisional brief) Mike Tanner presented a decisional briefing on ensuring corporate consensus to the NPOESS Senior User Advisory Group (SUAG). (Issue Assessment) 'Input to recent NPOESS decisions have not had the benefit of <i>corporate NOAA discussion and decision making</i>. These decisions include</p> <ul style="list-style-type: none"> – SUAG input to NPOESS Nunn-McCurdy Process – SUAG issued letter prioritizing de-manifested NPOESS instruments', (Obs Notes) MT:' How do we insure corporate consensus for NOAA? How do we insure that a corporate NOAA perspective is incorporated into the NPOESS process?'
Unofficial Issues Addressed	Did they address anything that was not on the official documents?
Decisions	<p>ICS – HSPO to coordinate with Madelyn Applebaum for issuance via email of ICS information to ensure continued training and support of ICS within NOAA.; NPOESS Alternative 3 was adopted with the direction to engage the goal teams similar to the GOES-R process. (Briefing Slide) 'Alternative #3 - Status Quo with NOSC Coordination on key issues coordinate with NOSC prior to meeting SUAG Elevate to the NEP/NEC if issues warrant.</p> <p>Pros: NOAA maintains 4 votes Corporate consensus developed through NOSC</p> <p>Con: Challenging to maintain timely coordination cycle Additional duties for crowded NOSC agenda'</p>
Actions	ICS – HSPO to coordinate with Madelyn Applebaum for issuance via email of ICS information to ensure continued training and support of ICS within NOAA
Impetuses for Activity	ICS - (Issue Assessment) VADM Lautenbacher requested information brief on Incident Command System (ICS), (Obs Notes) [ADML explains why he requested the ICS briefing] '...concerned with problems with crisis communication and coordination. All NOAA personnel need to know their roles.';

	SUAG NPOESS - (Issue Assessment) 'Input to recent NPOESS decisions have not had the benefit of corporate NOAA discussion and decision making. These decisions include – SUAG input to NPOESS Nunn-McCurdy Process – SUAG issued letter prioritizing de-manifested NPOESS instruments'
Selected Text	SUAG NPOESS (Obs Notes) MT: 'There is a perceived lack of corporate consensus.'

Meeting Two - NEC

Focus&Role of Council for Meeting	Corporate Issues, Strategic implementation discussion on Regionalization - Inform NOAA leadership on the current status of the FY 07 Continuing Resolution Update, get all NOAA offices on the same page, inform them about what to expect, garner specific guidance on specified challenges; Regional Collaboration in NOAA
Official Issues Addressed	FY 07 Continuing Resolution, Review implementation of NOAA's Regional Collaboration effort (2 Items were dropped from the agenda - Cooperative Institutes and NCEP/Nat. Center for Env. Prediction)
Unofficial Issues Addressed	
Decisions	NDM is not available for this meeting; most likely due to the sensitive nature of the Budgetary CR
Actions	NDM is not available for this meeting; most likely due to the sensitive nature of the Budgetary CR
Impetuses for Activity	Extra NOAA, Continuing Resolution (Budgetary Crisis); Regional Collaboration - NOAA Leadership, Window of Opportunity with DOC leadership interest and clock is ticking regarding the tenure of leadership and the current administration, Need strategic implementation session
Select Passages of Text	

Meeting Three - NEC

Focus&Role of Council for Meeting	Strategic Implementation - (Issue Assessment - PA&E) - KEY DISCUSSION POINTS: <input type="checkbox"/> FY 09 NOAA Program supports NOAA's near term mission requirements while ensuring NOAA's future relevancy by: - Accepting reasonable risk - balancing near term requirements with priorities for the future - Resourcing interagency and partnership commitments - Ensuring NOAA meets the needs of its constituents and customers <input type="checkbox"/> FY 09 NOAA Program brief provides programmatic detail demonstrating this through: - Overview of how FY 09 NOAA Program supports NOAA's
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	priorities as articulated in the FY 09 Annual Guidance Memorandum (AGM) - Status of significant issues
Official Issues Addressed	FY09-13 Program Plan - FY 09 NOAA Program supports NOAA's near term mission requirements while ensuring NOAA's future relevancy by & FY 09 NOAA Program brief provides programmatic detail demonstrating this through
Unofficial Issues Addressed	
Decisions	No Formal/Explicit Decision
Actions	No Decisions or Actions resulted from this briefing
Impetuses for Activity	PPBES/ Annual Business Cycle - (PA&E Briefing Slide 3) 'Provide context and background on the FY 09 NOAA Program prior to review of the draft Program Decision Memorandum (PDM) through: Overview of how FY 09 NOAA Program supports NOAA's priorities as articulated in the FY 09 Annual Guidance Memorandum (AGM); Status of significant issues; Summary of significant program increases and reductions; Overview of major outputs of the FY 09 NOAA Program'
Selected Text	(Obs Notes) BM: 'This is a decision brief, but I am not asking for one today. Provide Context on FY09-13 planning decision memorandum. (Obs Notes) RS: 'The work of NOAA is science. Can we take the product of the PPBES and demonstrate that it is defensible?' ADM L: As for.... Our mission requirements are two times as much as the money we have.' [Ensuing conversation between ADML and RS - regarding not investing research funds in the best interest of the agency, and how this is perceived from outside the administration.]

Meeting Four - NEC

Focus&Role of Council for Meeting	Operational Oversight (FISMA- C&A); Strategic; Adjust to Changing External Environment
Official Issues Addressed	FISMA IT Audit Process (C&A); AGM 2010-14 - New External Drivers, resultant Strategic Investment Questions
Unofficial Issues Addressed	Did they address anything that was not on the official documents?
Decisions	(NDM) FISMA C&A - No Decisions or actions resulted from this briefing; FY 2010-14 AGM - a) NEP/NEC approved the priorities and focus areas in the proposed AGM for FY 2010-2014, and provided a three day comment period for technical accuracy and clarity in the overall AGM text, b) NEP/NEC approved alternative 2 for strategic investment questions with suggested changes resulting from this brief.
Actions	See Above

Impetuses for Activity	Federal Information Securities Act/FISMA C&A - The Federal Information Security Management Act (FISMA) requires that each agency perform an annual , independent evaluation of the information security program and practices of that agency to determine the effectiveness of such program and practices - DOC polices this activity; AGM - Annual Business Cycle (PPBES) - Adjust NOAA's activities and mission priorities to changing external environment
Selected Text	

Meeting Five - NEC

Focus&Role of Council for Meeting	Providing Strategic Guidance, Corporate Oversight, How to interact and tell US Story successfully in the international arena (i.e., focus on societal benefits, what a GEOSS would do for their country)
Official Issues Addressed	NOAA Group on Earth Observations (NOAA GEO) provides an update on NOAA GEOSS Efforts (Helen Wood) - Update the NOAA Executive Council (NEC) on the progress of the NOAA GEOSS Integration Manager (H. Wood) and the status of NOAA contributions to USGEO, focusing on the NOAA inputs to the USGEO Task Teams in advance of GEO Summit; Update on the progress by the United States Group on Earth Observations (USGEO) in preparing for the upcoming GEO Summit (Greg Withee) - Update on the progress by the United States Group on Earth Observations (USGEO) in preparing for the upcoming GEO Summit. US GEO is an interagency group (14 Agencies) and their summit activities are headed by NOAA's Withee.
Unofficial/Impromptu Issues Addressed	(Mtg Minutes) VADM/DUS - stressed the importance of coordinating with ethics lawyers well in advance of all NOAA activities and events. NOAA used appropriate funds to support NOAA 200th Anniversary Celebrations: Monticello Origins Event, May 31, 2007. Apparently this was not covered in advance and had to be dealt with at the last minute. This prompted the above remarks and the introduction of DoC attorney's at the May 31 NEP meeting.
Decisions	
Actions	
Impetuses for Activity	The upcoming Summit as a Global observing system is an objective of the UnSec. GEOSS - Offer NOAA's leadership an update on the activities of NOAA GEOSS; Upcoming GEO Summit - NOAA leads the US GEO's Task Group that is prepping for the summit, leadership offers input on what to focus the US position on, also offered direction for how to frame US Efforts/Interest to garner international partners
Select Passages of Text	US GEO - In regards to how to disseminate the US interest to other Nations (Obs Notes) JK: Data exchange is not sexy, you can't get ministers to attend; most of what we are talking about is data exchange and protocols. NOAA GEOSS - discussion veers to talk about international effort, GEO - HW:'HW: [With regard to intergovernmental relations in GEO] What we need to do is think

	strategically and act tactically, in regard to engaging the diversity of initiatives and opportunities in the GEO effort.' This statement illustrates the concept of Strategic implementation mentioned by BB in his interview.
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