-EXECUTIVE SUMMARY-

INTRODUCTION AND BACKGROUND

This report describes the salmon drift gillnet fishery in Cook Inlet in Southcentral Alaska, and the nature of its historic and potential future interactions with offshore oil and gas industry activities in the region. The description and supporting literature review serve as context for identifying and assessing appropriate means and venues for mitigating problems that might occur should the fishery and offshore industry eventually interact on the Outer Continental Shelf (OCS) of Cook Inlet. Such mitigation could benefit both forms of enterprise.

Oil and gas industry activity on the OCS is administered by the U.S. Department of the Interior, Minerals Management Service (MMS). MMS is responsible for administering oil and gas development on the OCS under stipulations in the Outer Continental Shelf Lands Act (OCSLA). An important provision of the OCSLA authorizes MMS to conduct and sponsor studies of coastal and marine environments potentially affected by oil and gas industry activities occurring on the OCS.

This report provides information needed by MMS to pursue balanced management of resources under its jurisdiction on the Cook Inlet OCS. Project findings are based on a period of intense research conducted during and soon after the summer 2003 drift gillnet season, and into the spring months of 2004. The research and report have been completed under MMS Contract 1435-01-03-CT-71847 by Impact Assessment, Inc. (IAI), a firm specializing in maritime social science research.

PROJECT GOAL AND RATIONALE

The overarching goal of this project was to identify options for mitigating spatial conflicts between the drift gillnet fleet and the oil and gas industry that could potentially result from development activities on the Cook Inlet OCS. The research issues and information needs were identified through scoping efforts associated with OCS Lease Sales 191 and 199.

First we sought to determine whether establishment of platform drilling and associated activities in the federal jurisdiction waters of Cook Inlet could actually cause problems for the drift gillnet fleet. The conflict outcome was treated as a working hypothesis, and various research methods were used to examine fleet and oil/gas industry operations and the nature of their spatial interactions in the region over time. The resulting information provided rich context for subsequent examination of possible mitigation alternatives and the feasibility of their implementation in the study region.

RESEARCH OBJECTIVES, METHODS, AND ANALYSIS

A series of interrelated objectives were formulated by MMS to satisfy the intent of the project. IAI subsequently designed a research plan and used various social science research methods to document the manner in which drift gillnet vessels operate in Cook Inlet, and the potential for spatial challenges and hazardous interactions between the fleet and prospective oil/gas industry activities on OCS. A subsequent round of focused research was conducted during the following autumn months to identify mitigation possibilities in increasingly specific terms. The project objectives, rationale, and corresponding research methods employed by IAI during the course of the project are depicted in summary form in Table ES-1 below.

TABLE ES-1 PROJECT OBJECTIVES AND RESEARCH METHODS

Objective	Purpose	Method/Approach
Conduct Literature Search	Investigate how similar conflicts have been handled around world	Collect/analyze all relevant data from existing secondary sources
Synthesize Relevant Secondary Source and Archival Information	Integrate existing information about: conflict mitigation; social, economic, and demographic conditions; and drift gillnet and oil/gas operations	Synthesize into single database searchable by topic, location environmental factor, group or other relevant characteristic
Collect Data on Drift Gillnet Operations, Preferred Fishing Locations, and Salmon Migration Patterns	Identify areas of competing use and basic operational aspects of the drift gillnet fleet including issues of navigation, safety, fishing strategies	Use social network sampling approach to identify seasoned drift gillnet participants for purpose of in-depth interviewing
Construct a Geographic Information System (GIS)	Depict/analyze spatial elements of historic, current, and future interactions between drift gillnet fleet and oil/gas industry	Use existing baseline and new data collected through interviews and mapping exercises with key informants
Conduct Ethnographic Work on Drift Gillnet Vessels	Develop insight into contemporary drift gillnet operations and potential interaction with oil/gas industry vessels and/or infrastructure	Observe/interview key informants on their vessels and record behaviors and strategies of operators and operations
Conduct Ethnographic Work on the Oil Platforms	Develop insight into contemporary oil platform operations and potential interaction with drift vessels	Observe/interview platform operators, record relevant information about operations
Meet and Consult with Fishery Participants and Groups	Refine information about drift gillnet operations and mitigation issues; provide opportunity for commentary on preliminary research findings	Hold focus group meetings with seasoned drift gillnet operators in the study region.

The research design was configured so that most types of information collected through any one method could be verified in terms of validity through comparison with data collected by other methods or from other sources. For instance, we were able to check the reports of resource managers about historic interactions between the drift gillnet fleet and drilling platforms in state jurisdiction waters against the reports of: (a) persons who have been fishing in Cook Inlet for decades, (b) oil/gas platform personnel working in the area, and (c) U.S. Coast Guard personnel.

Similarly, while identification of mitigation possibilities was based in large part on the perspectives of our sample of seasoned fishermen, various other primary and secondary sources were also consulted. The resulting project analysis is thereby based on multiple sources of cross-validated information and concern for generating a representative set of mitigation possibilities.

PRIMARY ISSUES OF CONCERN

During the course of environmental assessment work conducted in association with Lease Sales 191 and 199, MMS determined that drift gillnet fishery participants held a number of concerns about the prospect of oil and gas industry activities on the Cook Inlet OCS. Among the most salient concerns were the following: (1) emplacement of drilling platform in fishing grounds could affect drift gillnet operations, (2) oil spills of blowouts could affect the salmon resource and the fishery, and (3) increased vessel traffic related to offshore activity could affect the fishery. The research described in this study was largely organized around investigation of the context surrounding the concerns, and around identification of effective ways to mitigate the potential problems.

SUMMARY OF DESCRIPTIVE FINDINGS

Findings clearly suggest that the navigational challenges of operating drift gillnet fishing vessels on Cook Inlet are real and can test even the most skilled mariners. Emplacement of a stationary object such as a drilling platform in the swift currents of the fishing grounds could increase the challenges and present the possibility for spatial conflict.

But of equal significance, the research has uncovered important information that suggests: (a) navigational challenges and spatial conflicts may be avoided through strategic planning on the part of the oil and gas industry and its regulators, and (b) many problems for the drift gillnet fleet potentially associated with prospective drilling on the OCS can be mitigated.

Finally, the research indicates that while oil and gas industry activity on the OCS could affect fishery operations in certain ways, the salience of the issue is in reality overshadowed by a host of economic and other challenges. Key findings include, but are not limited to, the following:

- Market conditions and marketing problems are especially significant in the modern context, and threaten drift gillnet fishing as an economically viable enterprise.

- Regulatory constraints have a major bearing on the perceived viability of the commercial fishery in Cook Inlet.

- The fishery in question is conducted in an unusually challenging marine environment. The rip zones considered to be productive fishing areas can be extremely hazardous.

- There is some historic precedence of interaction between drift gillnet operations and oil platforms on Cook Inlet.

- Navigational problems typically occur when a stationary object such as an anchored vessel is encountered during the "drift."

- Lateral drift induced by anomalous current movement can present additional challenges.

- Given rapid currents, time involved in retrieving nets with various amounts of catch, and a host of other factors including those mentioned above, response time and strategies needed to respond to a stationary object in the fishing grounds can vary extensively.

- While oil/gas industry activities are generally supported by drift gillnetters insofar as these could contribute to the regional economy, resistance to any OCS development activity that could negatively affect drift gillnet fishery operations remains a well-entrenched norm.

- Resistance to OCS activity relates in large part to fears about possible navigational hazards and new constraints on a challenged fishery.

SUMMARY OF MITIGATION RESEARCH FINDINGS

Our approach to investigation of means and venues for addressing potential spatial conflicts between the drift gillnet fishery and oil and gas industry activities on the Cook OCS yielded a range of alternatives. The following were identified as both potentially effective and feasible:

- Research participants commonly asserted that the most logical form of mitigation is to avoid placement of platforms in highly productive areas of the drift gillnet fishing grounds.

- Deferral of specific popular fishing locations from lease sale areas is a preferred option for many fishery participants.

- There is an area where drift gillnet fishing occurs relatively infrequently in the regulated fishing zone. This "*Area of Special Consideration*" coincides with an area of potential interest to the oil and gas industry within and south of the Cosmopolitan Unit.

- Extended reach drilling combined with additional distance gained by drilling from the western portions of the *Special Area of Consideration* could open up the possibility of exploration and production on parts of the OCS with minimized disruption of drift gillnet operations.

- Programs funding replacement of fishing gear lost due to entanglement on platforms would need to accommodate the unique characteristics of drift fishing in swift and unpredictable currents in the proximity of OCS platform facilities.

- Many research participants reported that any limitations resulting from emplacement of an oil platform in the fishing grounds could involve a "trade" for a longer fishing season (and/or more openings), and/or expansion of allowable fishing grounds. This would require collaboration with state policy decision makers and development of inter-agency resource management arrangements.

- IAI has identified models for potential involvement of stakeholders in oil and gas and fishery resource management decisions in the study region. These should guide local establishment of a Joint Council or Standing Advisory Committee on fisheries and oil industry activities.

- Given its centralized position in the social structure of the fishery, and its coalescing function in representing the concerns of drift gillnetters in the region, the United Cook Inlet Drift Association (UCIDA) should take a leading role in the workings of a Joint Council or Committee.

- Means for enhancing the fishery in exchange for potential or actual problem interactions on the OCS have been identified. The Santa Barbara County model indicates that a wide range of enhancement projects may be funded via industry fees stipulated through the offshore development permitting process.

- Given the economic challenges encountered by drift gillnetters, an ideal means for enhancing the Cook Inlet drift gillnet fishery would involve improving market conditions for harvested salmon. The participation of the oil and gas industry in collaborative efforts toward this end would likely contribute to mutually beneficial relations.

Table ES-2 below summarizes the primary issues of concern for participants in the drift gillnet fishery, and viable mitigation alternatives identified during the course of the project.

TABLE ES-2 SUMMARY OF IDENTIFIED MITIGATION POSSIBILITIES DETERMINED TO BE FEASIBLE

Agent/Concern	Mitigation Option
Emplacement of Drilling Platform in Fishing Grounds Could Cause Net Entanglement, Navigational Problems, and/or Net Loss of Fishing Grounds	• Avoid emplacement in the fishing grounds • Defer rip zones and other important areas from lease sales • Consider reaching the OCS from the infrequently-fished *Area of Special Consideration* with extended reach drilling • Establish a fund that would reimburse fishermen for platform-related gear loss in the uniquely challenging environment of Cook Inlet • Establish a vessel response program to assist in platform-related fishing emergencies
Oil Spills or Blowouts Could Affect the Resource and Drift Gillnet Fishery	• Involve drift gillnet fishery participants in spill consultation and response efforts
Oil and Gas Industry Activities on the OCS could Increase Vessel Traffic and Complicate Navigation and Fishing in Cook Inlet	• Award affected drift captains concessions to time and area regulatory restrictions • Establish seasonal restrictions on drilling • Establish an organized system of communication between drift gillnet and other vessels using the Inlet, especially tankers
All	• Establish a Joint Council or Committee to enable inter-industry communication • Develop fisheries and product market enhancement programs to help offset potential problems resulting from offshore oil and gas activity.