

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

OFFICE OF THE COMMISSIONER

AGENDA #19
February 1978
JAY S. HAMMOND, GOVERNOR

SUBPORT BUILDING - JUNEAU 99801

February 17, 1978

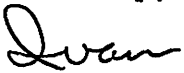
Mr. Mark Hutton, Assistant Executive Director
North Pacific Fishery Management Council
P.O. Box 3136 DT
Anchorage, Alaska 99510

Dear Mark:

Enclosed is our proposed contract to produce graphical and printed summaries of 1977 troll logbook data. I hope it is sufficiently detailed. Please call me at 465-4220 if you need further information.

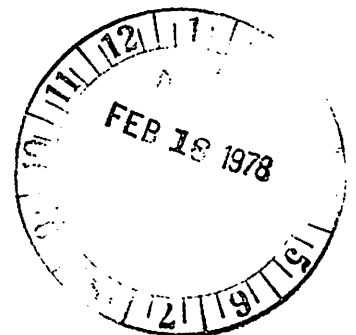
I have also sent copies of the proposal to Dr. Steve Fried, Dr. Bruce Wing, Carl Rosier, Steve Pennoyer, Gary Gunstrom and Al Davis.

Sincerely,



Ivan Frohne, Senior Biometrician
Division of Commercial Fisheries

Attachment



GRAPHICAL AND PRINTED SUMMARIES OF TROLL SALMON
FISHERY DATA FROM THE ALASKA TROLLERS ASSOCIATION
1977 TROLL LOGBOOK PROGRAM

This contract, entered into between the

North Pacific Fishery Management Council

hereafter called "the Council" and represented by the Executive Director
executing this contract, and

Alaska Department of Fish and Game

Division of Commercial Fisheries

Support Building

Juneau, Alaska 99801

hereafter called "the Contractor", agrees as follows:

INTRODUCTION

The Council is responsible for developing a fishery management plan for troll salmon in the offshore waters of Southeast Alaska, and has appointed the Contractor lead agency for the preparation of this plan. Data on the Southeast Alaska troll fishery is sparse and unreliable, particularly for the fishery conservation zone. However, high quality information from the Alaska Trollers Association 1977 Troll Logbook Program is available in machine-readable form. By the end of April it

will have been thoroughly edited and corrected.

The Alaska Trollers Association Logbook Program was initiated in 1976 with the cooperation of the University of Alaska Sea Grant Program, the National Marine Fisheries Service and the Contractor. The objectives of the program are to collect basic fishery data, to document basic interrelationships of the ocean ecosystem, and to monitor long-term oceanographic (both physical and biological) trends. Data from the 50 logbooks returned in 1976 was entered, edited and summarized by the Contractor. The Contractor had no funds to process the 1977 data, which was keypunched at Outer Continental Shelf Environmental Assessment Program facilities in Fairbanks. The University of Alaska Sea Grant Program provided support to edit and correct the data from the 100 logbooks returned in 1977.

Although the 1977 logbook data format differs markedly from the 1976 format (a number of improvements were incorporated in 1977), the Contractor, with the considerable experience and expertise gained in the processing of the 1976 data, is best qualified to summarize the 1977 information.

ARTICLE I. STATEMENT OF WORK

A. Background

Very little information exists concerning the distribution, size and abundance of salmon available to the troll fishery off the coast of Southeast Alaska. Parker and Kirkness (1956) noted an apparent increase

in the proportion of immature chinook salmon from south to north, but did not study age composition north of Cape Spencer or in the offshore banks of the Fairweather Grounds. Godfrey et al (1975), Godfrey (1965) and Mason (1965) have reported multi-national studies of chinook and coho distribution and abundance, but areas were so grossly defined (2° by 5° blocks) that this information is not very useful. Various capture methods were used, including purse seine, gill net and long line. Most sampling was done at 15 or more miles from shore and there was relatively little effort off Southeast Alaska.

Recent studies by the Contractor [Davis (1976), Davis and Selin (1977)] have emphasized results from port sampling for coded wire tags. Fish ticket statistics collected and summarized by the Contractor are not very specific because a troller's fish delivery may include salmon caught in several statistical areas; fishing time is not recorded on fish tickets.

B. Objective

Accomplishment of the work detailed in this contract will provide detailed information on the temporal and spatial distribution, abundance and feed of the major salmon species harvested in the Southeastern Alaska troll fishery -- chinook, coho and pink salmon -- during the 1977 fishing season. Subsidiary objectives include summaries of the associations of selected environmental parameters (water temperature and color, wind) with salmon abundance and salmon feed species; qualitative

abundance measures of salmon feed species and incidentally-caught bottom fish; and marine mammal observations.

C. Statement of Work

The 1977 troll logbook data is stored on a disk file at the University of Alaska Computer Center in Fairbanks. The Contractor currently has a keyboard computer terminal in Juneau, and intends to purchase a graphics display terminal and a digital plotter by May 1, 1978. This equipment will be used to prepare printed and plotted deliverables described below.

Task 1 The Contractor will produce plots of trolling effort, superimposed on a map of Southeast Alaska (map plots), by calendar week. Polygonal troll summary areas will then be defined based on the distribution of trolling effort and other considerations.

Task 2 The Contractor will produce printed summaries by troll summary area and time period (weekly, bi-weekly, monthly and early, middle and late season) of:

- a. Salmon catch by troll hour, by species,
- b. Salmon feed abundance frequency distribution,
- c. Water color frequency distribution,
- d. Water temperature average, average deviation and range,
- e. Wind speed and direction frequency distribution,
- f. Salmon stomach contents occurrence frequency distribution,
- g. Salmon stomach contents importance measures,

- h. Bottomfish frequency distribution,
- i. Marine mammal sightings frequency, distribution and average number in group, and
- j. Comment listings.

Task 3 Produce map plots of sea water surface temperature distributions by time period.

Task 4 Produce plots of salmon catch per troll hour by species and troll summary area versus time.

Task 5 Produce a listing of all marine mammal sightings, sorted by date, including position, date, logbook number and comments.

ARTICLE II. PROJECT SCHEDULES AND DELIVERABLES

Schedule

<u>Date</u>	<u>Event</u>
April 1, 1978	Contract Award
September 31, 1978	Final report. This report will include the printed reports and plots produced in Tasks 1 through 5

Deliverables

All products shall be delivered to the Executive Director, NPFMC. Two copies will be professional quality and reproducible. The original must be one of the copies submitted, and shall be camera-ready copy, single spaced, typed on one side of the page on good quality white paper

measuring 8-1/2 x 11 inches. The printed summaries and plots generated by computer printer may be reduced photocopies.

The following format will be used in preparing the final report:

Title Page

Preface

Executive Summary

Table of Contents

List of Figures

List of Tables

List of Abbreviations and Symbols

Acknowledgements

Introduction

Methods

Results

Conclusions

Recommendations

Abstract

Key Words

References

The Executive Director, NPFMC, may allow combinations of sections or their omissions, or other changes if requested by the Contractor.

An explanatory management letter of no more than two pages must accompany each voucher.

ARTICLE III. COSTS AND TERMS OF PAYMENT

The total is \$9,698.

A detailed budget is attached.

ARTICLE IV. PERIOD OF CONTRACT

Work on this contract shall commence on April 1, 1978 and shall be completed within a one-year period unless extended by a written mutual agreement.

ARTICLE V. CONTRACT MONITOR

Mrs. Judy A. Willoughby is designated contract monitor. The Contract Monitor is responsible for the administration of this contract for the Council. Mrs. Willoughby is located at the Council's headquarters office, 333 West 4th Avenue, Suite 32, Post Office Mall Building, P. O. Box 3136 DT, Anchorage, Alaska 99510. Her telephone number is (907) 274-4563.

ARTICLE VI. PAYMENTS

ARTICLE VII. GENERAL PROVISIONS

Attachment

Graphical and Printed Summaries of Troll Salmon Fishery Data from the
Alaska Trollers Association 1977 Troll Logbook Program

BUDGET

1. Personal Services

Programmer III @ \$2102/month,
temporary, plus \$222/month
benefits @ 10.55%. 1/3 time for 6 months \$ 4,648

2. Travel

One 3-day trip to Fairbanks. Consultation
with University of Alaska Sea Grant data entry
and computer network staff \$ 350

3. Contractual

Computer time and data storage (University
of Alaska Computer Network)
Data storage: 1.8 million characters
for 6 months @ \$.041/1000 characters/month
(\$75/month) \$ 450
Computer time: 5 hours @ \$600/100KB/hour \$ 3,000

Duplication of Final Report and computer

summaries for distribution to other agencies

and the public \$ 1,000

Telephone communications \$ 100

4. Commodities

Miscellaneous office and graphics supplies \$ 150

5. Equipment

None

SUMMARY

1. Personal services \$ 4,648

2. Travel \$ 350

3. Contractual Services \$ 4,550

4. Commodities \$ 150

5. Equipment - 0 -

Total \$ 9,698