

FISHERIES

SUB-

COMMITTEE

Memorandum of Understanding

in a Cooperative Agreement between

Alaska Department of Fish and Game

and

Commercial Fisheries Entry Commission

WHEREAS, modernizing and streamlining governmental operations is needed in order to effectively and efficiently manage the Alaskan commercial fisheries, and

WHEREAS, the state and public will benefit from the provision of more and higher quality commercial fisheries data and information in a more responsive time frame; and

WHEREAS, the Alaska Department of Fish and Game (ADF&G) and Commercial Fisheries Entry Commission (CFEC) recognize that the wise expenditures of money and use of manpower and equipment necessitate cooperation and the coordination of services;

NOW, THEREFORE, it is mutually agreed that ADF&G and CFEC will jointly contribute to the creation of a Data Processing Cooperative (the Cooperative), which will consist of the ADF&G Division of Data Services (the Division) and the CFEC Data Services Section and will serve as the operations branch for providing commercial fisheries data processing and systems networking services to both ADF&G and CFEC.

FURTHER, it is mutually agreed that opportunities for cooperation are afforded the Parties to this agreement through the likely mutual office location in the "Taku Twins" building, not least of which is the opportunity for staff performing similar data processing functions for both entities to utilize a cooperative data communications network, streamline the entry and editing of primary data series and to enhance access to data series for research purposes. To fully realize these advantages, the parties agree to provide office area, equipment and budgetary commitments to allow program missions of both agencies to benefit from economies of scale and efficiencies of operation through cooperative use of data processing personnel and equipment.

FURTHER, it is agreed that a Data Services Policy Committee (the Policy Committee) will be established and will consist of ADF&G and CFEC Division Directors/Section Chiefs. The Policy Committee will advise the co-chairpersons, who will be the Commissioner of ADF&G and the Chairman of CFEC or their specified designees.

FURTHER, during the term of this agreement, the Policy Committee through consensus of its co-chairpersons will advise the Manager of the Cooperative in the following areas: (1) management of the Cooperative including determination of overall policies, objectives and priorities with respect to the processing of commercial fisheries data systems; (2) determining annual budgetary priorities of the Cooperative for the Governor's review and referral to the Legislature; (3) development of policies controlling the assumption of additional data services management; and (4) the Policy Committee co-chairpersons will concur on the selection, evaluation and termination of the Director of the newly formed Division of Data Services, who will be the manager of the Cooperative.

FURTHER, it is agreed that a Technical Advisory Committee (TAC) will be established and will be composed of technically trained staff representatives designated by members of the Policy Committee, and at least one representative of the Department of Administration, Division of Data Processing. The Deputy Director of CFEC's Data Services unit shall chair the TAC. The TAC shall serve as staff to the Policy Committee persons and the Manager of the Cooperative on matters relating to data processing.

FURTHER, when the Cooperative is operational and has processed extant commercial fisheries data to the point of being current, it will be expanded to include sport fish, wildlife and habitat data series.

FURTHER, at an appropriate future date, it is agreed that ADF&G and CFEC will jointly contribute to the Division of Data Services, in ADF&G, which will replace the Cooperative as the operations branch for providing primary commercial fisheries data processing and systems networking services to both ADF&G and CFEC.

Objectives of this Cooperative Agreement

1. To provide the ongoing routines currently performed by the respective units of ADF&G and CFEC during the transitional phase, develop and implement data processing functions and services;
2. To establish remote licensing services in Kodiak, Anchorage and Juneau which will interface with the centralized licensing system currently used by CFEC;
3. To enter, edit and correct 95% of fish tickets within four weeks of receipt of the fish tickets by the regional data entry clerks, and complete the remaining 5% as soon thereafter as possible;

4. To provide same year summary fisheries information from all Regions to the Board of Fisheries by its December meetings of each year.
5. To create a common, easily accessible fish ticket data base, both historical and current by December 1982;
6. To provide library services;
7. To integrate CFEC's historical computer files relating to catch and establish a statewide all-species catch file at the central computing facility;
8. To plan for and coordinate future data and information requirements of ADF&G and CFEC. This includes identification of needs, analysis of methods of accomplishment, itemizing the resources required and developing an implementation schedule;
9. To continue provision of all other data and information, not heretofore detailed, at the same or better level as is currently being provided; and
10. To utilize staff and equipment of the respective agencies in a manner which maximizes efficiency of operation to achieve the stated goals.

Responsibilities & Functions of ADF&G and CFEC

1. To provide a commissioner or a specified designee to co-chair the Policy Committee;
2. To contribute to the cooperative manpower and resources outlined in the accompanying budgets;
3. To approve the final budget items for the Cooperative by consensus for submission to the Governor; and
4. To dedicate the final budget appropriation to the Cooperative with each agency retaining authority over its respective portion of the funds, as directed by the Governor and implemented by the Division of Budget and Management.

Qualifications

1. The responsibilities and functions are directly related to the accompanying budget. In the event that either budget allocation is less than requested, the responsibilities and functions will be correspondingly less.
2. Nothing in this Memorandum of Understanding shall obligate either party to the expenditure of funds, or for future payments of money, in excess of appropriations authorized by law.

3. Each party agrees that it will be responsible for its own acts and the results thereof and neither party shall be responsible for the acts of the other party; and each party agrees it will assume to itself risk and liability resulting in any manner under this cooperative agreement.
4. Each party will comply with all applicable laws, regulations and executive orders relative to Equal Employment Opportunity.
5. Nothing herein is intended to conflict with current directives, laws or regulations of the signatory agencies/ organizations. If there are conflicts with current directives, those will be noted and appropriate corrections made at the first opportunity.
6. This Memorandum will expire March 31, 1982, but shall remain in effect until a new Memorandum of Understanding is negotiated. The signatories shall meet at least once annually to review this agreement.

William G. Demmert

Deputy Commissioner
William G. Demmert
Alaska Department of Fish & Game

John Williams

Commissioner
John Williams
Commercial Fisheries Entry
Commission

Date: 6-1-81

5-29-81

for:

Ronald O. Skoog
Commissioner
Alaska Department of Fish & Game

for:

Robert J. Simon
Chairman/Commissioner
Commercial Fisheries Entry
Commission

RECEIVED
COMMERCIAL
FISHERIES ENTRY COMMISSION

EXECUTIVE SUMMARY

The purpose of this study is to determine the various functional requirements of State of Alaska fish and wildlife data processing systems and to study the feasibility of alternate systems for current and future needs. The study sets forth not only costs for such systems but also those for personal services, travel, contractual, commodities and equipment. These costs will be the basis for a budget request for a new Division of Data Services to be located in the Alaska Department of Fish and Game by joint agreement between the Commercial Fisheries Entry Commission and the Alaska Department of Fish and Game.

Prior to configuring computer hardware systems and developing other costs for the new Division, a "Requirement Definition Statement" was developed. The results of this study which was approved by representatives of the Department of Administration, Commercial Fisheries Entry Commission and Alaska Department of Fish and Game representatives, indicates a need to collect and store 500 megabytes (500 million characters) of data annually to be retrieved by more than 100 users. Recommendations included providing time sharing services to ADF&G and CFEC personnel, expediting implementation of CFEC remote licensing, upgrading ADF&G regional computer hardware and establishing control procedures for ADF&G fish tickets.

It must be stressed that due to time constraints it was agreed by all parties involved that emphasis would be placed upon studying CFEC licensing and ADF&G fish ticket applications, as opposed to other CFEC and ADF&G needs.

Using results from the statement discussed above a "Feasibility Study" was conducted to investigate various alternatives to implementing a new division that would satisfy the requirements.

Utilizing personnel requirements for processing CFEC permit and vessel license applications, ADF&G fish tickets and estimates developed for proposed application software projects, an organizational structure consisting of 41 positions to be located in three DDS sections was developed. Appropriate training schedules indicated for the DDS staff included not only technical training for systems analysts and programmers but also executive seminars for the Policy Committee and management oriented classes for the DDS Director, Deputy Director and section chiefs.

Two alternate computer systems, one utilizing IBM hardware and the other using DEC, were next configured and evaluated. Both configurations meet the functionality identified previously. The IBM configuration is, however, recommended. Prior to selection of a vendor, the State should perform site visits to verify the systems as represented by the manufacturers will satisfy DDS objectives.

The data communications network developed by the October, 1980, CFEC Remote Site Study was reviewed and found to be appropriate with minor modifications for the proposed hardware environment including 3 distributed processing sites. Data communicative network costs for FY 82 include only those necessary for Juneau, Anchorage and Kodiak.

Finally, other costs were developed to produce a total DDS budget of \$2,826,615 for FY 81. The breakdown of this budget follows:

Personal Services	\$1,680,364
Travel	50,000
Contractual	1,232,787
Commodities	53,820
Equipment	92,000
	<u>\$3,108,971</u>

ADF&G data processing needs have been previously addressed by two Capital Improvement Programs for FY 82: (1) Fish and Game Management Information, and (2) Habitat Protection Section (HPS) Data and Information Management System. Of the two only the Fish and Game Management Information CIP contains a potential overlap (\$630,000). Rather than reduce this CIP by an arbitrary percentage of the potential overlap, it is recommended that this amount be applied to establishing satellite centers in Fairbanks and Nome which would be compatible with the distributed processing network proposed by this study.

The information included in this section is supported in detail by subsequent sections and appendices of this report.

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

OFFICE OF THE COMMISSIONER

JAY S. HAMMOND, GOVERNOR

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January 22, 1982

The Honorable Eric G. Sutcliffe
Alaska House of Representatives
Pouch V, State Capitol
Juneau, Alaska 99811

Dear Mr. Sutcliffe:

In response to your December 20, 1981, request for information and cost estimates for fish ticket system enhancements, I want first to assure you that improving the timeliness, accuracy, and general utility of fish ticket data processing has been a Departmental priority for some time. The data backlog has been cleared, but there remains a time lag of many months, in some cases, before fish ticket data is finalized, and the accuracy of some of our historical fish ticket files is not up to standard. Error correction of the historical data is proceeding as time permits, but additional computer equipment and data entry staff will be required to make preliminary fish ticket data accessible within two to three weeks after receipt by data services.

The Department is now making a concerted effort, with the help and cooperation of the Department of Administration, to revitalize and streamline its information management functions. To that end capital funding was received this fiscal year and its disposition is now being intensively planned. It is my judgment, however, that the overall improvements in data processing and communications to be purchased by this funding will not strongly impact fish ticket processing.

Fish ticket data entry is accomplished in three locations: Anchorage, Juneau, and Kodiak. Data backlogs occur because most fish tickets are received in midsummer, during the salmon season. To clear these backlogs, we need additional data entry staff during the summer months, and computer equipment which can accommodate at least four simultaneous operators. A total of 20 months of data entry staff time (approximately \$45,000 annually, including benefits) would suffice to enter almost all fish ticket data within two and a half weeks of receipt. * During peak periods, four clerks would be employed in Anchorage, two in Juneau, and two in Kodiak.

The minicomputers currently used to enter fish ticket data in Anchorage, Juneau, and Kodiak are not powerful enough to support more than two simultaneous data entry operators, and their limited magnetic disk data storage capacity makes data management procedures relatively complex, awkward, and error prone, causing delays. More powerful equipment, including increased magnetic disk data storage, a magnetic tape drive for convenient data transfer

of entered fish tickets to Juneau, a faster printer, four keyboard terminals, and the requisite supporting computer hardware and software will cost approximately \$100,000 per site (\$300,000 total). Computer maintenance charges will increase by about \$30,000 annually, commodity expenses will increase by about \$5,000, and about \$5,000 will be needed for travel between Juneau, Anchorage, and Kodiak for operator training. First year costs would total \$385,000. The existing fish ticket data entry editing software will require only minor modification, which can be accomplished by existing staff. Assuming no unreasonable delays in equipment purchase approval, system installation could be completed nine months after funding, in time for the 1983 salmon season. Continuation costs following the first year of funding would drop to about \$85,000.

In summary, estimated costs for the proposed fish ticket entry system upgrade, by line item, are:

Line	
100	45,000
200	5,000
300	30,000
400	5,000
500	<u>300,000</u> (first year only)
 Total	 \$385,000

My staff will be happy to supply more detailed information, including itemized equipment requirements and data entry schedules, if this would be helpful. Enclosed for your use is a summary of the existing fish ticket system. Thank you for your interest and concern.

Sincerely,

Ronald O. Skoog
 Ronald O. Skoog
 Commissioner

Enclosure

cc: Steven Pennoyer
 Ron Lehr
 Keith Specking

SUMMARY OF EXISTING FISH TICKET SYSTEM

The Fish Ticket process involves the collection, organization, storage and reporting of data transcribed from the Fish Ticket document. The transcription of data into a computer readable medium is currently performed at three Regional Centers located in Juneau, Anchorage and Kodiak. The process can best be visualized if broken into three functional activities:

1. Preparation of Fish Tickets
2. Computer Processing
3. Post Processing of Errors

1. Preparation of Fish Tickets

The tickets are collected from the processors by management area offices where they are separated into logical processing groups and manually edited for accuracy and legibility of information.

Ticket batching requires two steps. All incoming tickets are first separated into groups defined by fishery and are then further separated into batches of 200 or less tickets for each Fishery group. Grouping and batching tickets makes possible efficient entry into the system and provides an audit trail of transactions within a management area. After separation, the tickets are manually inspected and edited for error conditions and for legibility.

2. Computer Processing

The automated portion of the in-season process performs the computer functions of the system. These functions are the assimilation of tickets by the data entry process, the generation of error reports, the building and maintenance of the fish ticket files, and the production of reports from these files. This process involves three activities:

- A. Data Entry and Correction
- B. Data Transfer
- C. Reporting

A. Data Entry and Correction

Fish ticket batches are collected from the area offices and scheduled for data entry. At data entry time each ticket is automatically edited by the data entry program. If a data item error is detected, the operator is given the option of re-keying the data item or accepting the data item as shown. If the operator does not re-key an item that is in error, the data is accepted and an error condition is set for that item. When the data entry session is complete an error report is generated listing all errors in the input data.

B. Data Transfer

On a regular schedule, current year Fish Ticket data is transferred from each Regional data entry center to the Division of Data Processing

Computer Center in Juneau. This data is accumulated and maintained as a Historical data base and is available for either in-season or historical catch reporting.

C. Reporting

During the past year a comprehensive Fish Ticket Reporting System was developed by the Department. This new system consists of a number of computer programs capable of interacting with the Historical data base to produce an almost infinite variety of printed reports and other output media. Using this System, almost all requests for information contained within the Historical file can be made available to the requestor within 24 hours of the original request.

3. Post Processing of Errors

Post processing is the correcting of errors listed on the computer generated error report. This is done by either the region or management area office staff. After the errors have been corrected, the error report is returned to the data entry center where corrections are made to the erroneous data contained on the file.