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ARCTIC-YUKON-KUSKOKWIM SALMON FISH TICKET PROCESSING MANUAL

By:
Linda Brannian
and
James Brady

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ALASKA DEPARTMENT OF FISH AND GAME
P.O. Box 3-2000, Juneau, Alaska 99802

Don W. Collinsworth
Commissioner

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By

Linda Brannian
Alaska Department of Fish and Game
Division of Commercial Fisheries
Anchorage, Alaska

James Brady
Alaska Department of Fish and Game
Division of Commercial Fisheries
Cordova, Alaska

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FOREWORD

In the early summer of 1981 a quiet revolution in fisheries data processing took place on the banks of the Yukon River in the tiny village of Emmonak. Armed with relatively primitive microcomputers the Lower Yukon Area staff of the Division of Commercial Fisheries attacked the problem of regulating commercial salmon fisheries by using hard catch data to guide the decision process. The outcome of this revolution has been to give every commercial fishing management authority in the state almost immediate access to the commercial catch and effort data which is so crucial to fisheries management and research operations. To fully appreciate the magnitude of this very positive contribution to the management of Alaska's fisheries resources it is necessary to know some of the history of fisheries data processing from the view point of the management biologist.

Prior to 1981 in every other area of Alaska, and of the world as well, regulatory decisions in salmon were, and mostly still are, guided by estimates of catch from aerial surveys, oral processor's reports, on-board observer's reports, and other indirect measures of the level of harvest. The definitive data of catch and landings were recorded in the fish tickets which the commercial buyers of raw fish are required by law to complete for each transaction. The many thousands of records of transactions generated by the commercial fisheries prompted the State of Alaska to introduce electronic data processing (EDP), not long after statehood.

The sequence of events in EDP did not begin for fish ticket information until after the tickets were sent to Juneau, and later to either Anchorage or Juneau, for data entry. Months and even years could pass before the area management program could have access to the actual catches and landings information for a given harvest season. The process of correcting errors in this data base was slow and painstaking because area staff had to review hard copy summaries of newly entered data and forward corrections to the central site. Given the large geographic separation between the EDP sites and the commercial fisheries it was difficult for EDP staff to catch even the obvious errors in the early years of the system. The long turn around time caused the creation of two accounting systems, the EDP and the Area, with significant duplication of effort involved. Obviously the entering of primary data at central sites which were remote with respect to the origin of the data was less than satisfactory to the area management biologists.

Due to the physical circumstances of the fishery, the Yukon area had a long tradition of completing manual data processing before forwarding the tickets for EDP. The concentration of fish buyers and processors in a narrow band along the banks of the Lower Yukon River was exploited during the 1970's by the area management staff to quickly collect the buyer's fish tickets in order to manually tally the actual salmon harvest before deciding whether to authorize further fishing. Tallying effort by hand was much more difficult than summing catch because of the problem of locating multiple deliveries by the same harvester from amongst hundreds of fish tickets after every fishing period, but this task was also accomplished. Thus the essential critical data was available to the staff in a timely fashion for management decisions, and for more lengthy analyses conducted after the season,

as well as for meeting the reporting requirements of the public and the Department of Fish and Game.

Given this tradition of manually processing large numbers of fish tickets, it is not surprising that the advent of microcomputers with business oriented software was quickly embraced by the Yukon staff. At the time microcomputers were first used for processing of fish tickets in the remote Yukon delta village of Emmonak, June of 1981, self sufficient microcomputers were relatively rare in state service, having first appeared in some offices in 1978-79. The realization that on-site data entry and validation by local staff could end most of the frustrations of the central site EDP system swept the state, and by the 1985 season all fisheries were in the process of implementing on-site data entry with the help and cooperation of the central EDP staff. The goal of easy, routine, and rapid access to critical fisheries data for all of the state's fisheries workers is now within reach. Analyses which formerly took years to complete can now be completed in a few months. The abilities of the Division of Commercial Fisheries to control and direct the use of the state's resources has been profoundly improved. Now that we are in the second and third generation of on-site EDP software and hardware, let us not forget to credit people such as the authors of this documentation and their colleagues who had the vision and courage to prove a new technology under difficult circumstances.

Phillip R. Mundy
Chief Fisheries Scientist
Division of Commercial Fisheries

ABSTRACT

Salmon *(Oncorhynchus* spp.*)* fish tickets provide the Alaska Department of Fish and Game's primary sources of commercial catch and effort data. Issued upon delivery of salmon by a licensed fisherman, fish tickets are collected by Department staff after every commercial fishing period. Data are entered onto microcomputer located in area offices using a system developed to computer edit and summarize the resulting catch and effort statistics. This report represents the procedure manual for processing salmon fish tickets in the Arctic-Yukon-Kuskokwim Region of the Division of Commercial Fisheries.

KEY WORDS: salmon, *(Oncorhynchus* spp.*)*, fish tickets, data processing, catch and effort statistics.

CHAPTER I. INTRODUCTION TO THE AYK FISH TICKET SYSTEM

Perspective

The Arctic-Yukon-Kuskokwim (AYK) region was defined by the Division of Commercial Fisheries of the Alaska Department of Fish and Game (ADF&G) as all of Alaska north of the Alaska Range, excluding the Bristol Bay drainage. For purposes of managing its fisheries resource, AYK has been broken into four management areas which cover the drainages of (1) Kuskokwim Bay, (2) the Yukon River, (3) Norton Sound-Port Clarence, and (4) Kotzebue Sound. All five species of Pacific salmon are present with chum *(Oncorhynchus keta)* and chinook salmon *(O. tshawytscha)* being of the greatest economic importance. The main objective of the Division of Commercial Fisheries is to manage the commercial and subsistence fisheries on a sustained yield basis. Various programs have been established to provide fisheries managers with abundance information about a stock of salmon as they return to spawn in order to control the harvest. Escapement enumeration programs such as counting towers, weirs, and sonar counters have been placed on key systems. Abundance indexing programs such as test fishing have been developed near the commercial fishing districts. Important information about run strength is also provided by the commercial fishery and often represents the data source with the longest comparable base, being the first information historically collected as a fishery develops. It's catch and catch per unit effort (CPUE) data form key indicators of run abundance. Commercial salmon fishing is generally allowed in short intervals called fishing periods. During closures catch and effort statistics are evaluated along with additional information from escapement and test fish programs in order to decide whether additional fishing time can be allowed. A strong reliance is placed on the timely compilation of catch and effort data.

Salmon fish tickets provide the primary source of commercial catch and effort data. By state law those who buy commercially caught salmon (processors) are required to fill out a fish ticket, provided by ADF&G, at the time of each purchase from a commercial fisherman. Processors must then provide copies of these fish tickets to an ADF&G office within 24 hours after the closure of each fishing period or as otherwise specified. In the past, these fish tickets have been hand sorted and tabulated by fishery monitors to provide area biologists with catch statistics for within season management decisions. This process has been automated through the use of microcomputers in remote field offices. As a result, accurate commercial harvest statistics of a finer delineation are generated within a short period of time after each fishing period. In addition, this process has improved the accuracy and timeliness of post-season harvest reporting. Finally, the fish ticket data base generated in each area office can be directly transferred onto the statewide fish ticket database for historical summaries and permanent archiving.

The system as presented here was initially developed to address the specific inseason management needs of the AYK salmon fisheries. Later it was expanded to become compatible with the statewide system and is flexible to the extent that it has direct application to other fisheries in the state with similar

needs and fish ticket volumes. The system with the present hardware limitations (Vector microcomputer with 56K RAM) can comfortably handle a season load of 20,000 fish tickets in a management area with 700 permit holders.

Objectives of the System

This manual outlines the basic procedures and background information for processing commercial salmon fish ticket data using a microcomputer. The primary objectives of the system are given below.

1) To create and maintain, within the commercial salmon season, a microcomputer readable fish ticket data base in each area office.

2) To produce accurate and timely commercial catch and effort statistics from the fish ticket data base for within season management.

3) To transfer the data base compiled in each area office to the statewide fish ticket system maintained in Juneau, via a hard link to the regional DEC mini computer in Anchorage.

Scope and Organization

This manual must address a broad audience, ranging from fishery monitors with little or no computer experience, to future programmers who may have the task of writing complementary software, or maintaining existing programs. It is recommended that new users read Chapters I through IV before using the system. Chapter V provides detailed procedures that will lead one through the use of all program packages in the system. This section should be referenced each time the system is used. These procedures must be strictly followed in order for the system to work. After the new user has become familiar with the system and the operating procedures, it may be beneficial to re-read Chapters I-IV. Chapter VI is a trouble shooting section. Hopefully, if the procedures in Chapter V are conscientiously followed Chapter VI won't be needed. The Appendices contain general references information (e.g., examples of output reports and data entry forms). In addition, data file descriptions are provided for programmers interfacing with the system, and program listings may be obtained from the authors. Perhaps most importantly, fish ticket and batch number ranges, species codes, and a host of other area-specific information are provided for area office supervisors whose responsibility is to ensure the integrity of their area's data base.

The programs and procedures presented here are the product of three field seasons of development on the lower Yukon. In addition, contributions were made by AYK and other regional staff members, Computer Services in Juneau, and the fishery monitoring crews in Emmonak, Fairbanks, Bethel, Nome, and Kotzebue, who provided rigorous field testing. Although a great effort has been made to find and correct all of the glitches and bugs in this system, it must be recognized that additional problems may turn up. When this happens, report the problem to the AYK biometrician, so that when a correction is made all of the area offices can benefit.

Confidentiality of Fish Ticket Information

Certain aspects of fish ticket data, such as catches by individual fishermen or production by individual processors, are confidential. Fishery monitors should be informed of this prior to using the system. It is the responsibility of area office supervisors to ensure that this confidentiality is strictly maintained.

Occasionally the Division of Fish and Wildlife Protection, Alaska Department of PUblic Safety, will request that original copies of fish tickets be provided to be used as evidence in court hearings for fishing violations. If this occurs, a log should be maintained of the released fish tickets. Photo copies of the fish tickets should be made for archiving in the area offices in case the originals are lost. Lastly perhaps, notification of release be sent to the regional office. In all cases area offices should make some provision for releasing fish tickets.

CHAPTER II. MICROCOMPUTER BACKGROUND INFORMATION

The basic computing components of the AYK fish ticket processing system are a microcomputer with two disk drives, a printer, diskettes, and an assortment of programs. All of the tangible items in this system, such as the computer, disk drives, and the printer are collectively referred to as the "hardware" components. The programs such as the data base management package, "DataStar", and Microsoft BASIC programs are called "software". The microcomputers presently used in the AYK area offices are produced by Vector Graphic.

Hardware

The following sections on the hardware components of a computer system are presented to help give new computer users a working understanding of what the components do and how they work. It is not essential to processing fish tickets. Readers may skip over this section and continue with the software section.

The hardware components of a microcomputer are generally classified into three basic categories according to their function. They are as follows:

1) The central processing unit (CPU).

2) The internal memory or random access memory (RAM).

3) The input and output (I/O) devices.

The CPU for the Vector microcomputer is a single small black micro chip called the "Z-80 B". This chip is the "brains" of the system. It alone performs all of the calculations, logic, and other work commanded of the computer. In fact all of the other components to the computer system can be thought of as offering support functions to the CPU.

The internal memory of the system resides in a number of small interconnected memory chips. Together they are called the random access memory (RAM). The space available for use in memory is measured in "bytes" or "kilobytes" ("K"). One byte is the space taken up by one typewriter character in memory where one "K" is 1,024 bytes. A full typewritten page would take up a little more than three K of memory space. Most Vector computers at this time have 56 K of usable RAM. The computer's RAM chips are used for temporary storage of information and programs. This information can be read, added to or erased by the CPUE at any time. The first thing that happens when a program is "run" on the computer, is a copy of the program is transferred from the diskette it is stored on, into the memory chips in RAM. This is called "loading" the program. A copy of the program now takes up a portion of the RAM space. The remaining RAM space is available for storage of data or text. When a new program is loaded into memory, it replaces the position of the preceding program which is consequently erased. When the computer's power is turned off, all of the information in RAM is erased.

Input/Output (I/O) devices send information to and/or receive information from the CPU. There are four basic I/O devices on most microcomputer systems. The typewriter keyboard is an input device that allows the operator to send information to the CPU. The screen on the computer terminal and the printer are output devices, as they receive information from the CPU to display, or print. Lastly, the disk drives do both, receive output from and send input to the CPU. Output sent to the disk drives is written on (5-1/4 inch, 133.4 mm) floppy diskettes. Programs, data files, and text are stored as bit images on the magnetic surfaces of the diskette. The CPU also reads data or programs from a diskette, thereby receiving input from the disk drive.

Floppy diskettes are the most common permanent storage media for programs and data used by microcomputer systems. Data stored in the temporary memory chips in RAM can be permanently stored on floppy diskettes. In addition, data files too large to store in memory can be maintained and accessed off floppy diskettes. The (5-1/4 inch, 133.4 mm) floppy diskettes used with most Vector systems store nearly 600 K. Some systems have a Winchester hard disk which provide more storage space (5,000 K).

Software

Software used in the processing of fish ticket data or general microcomputer operation will be discussed in this section. It is important that persons processing fish ticket data develop an understanding of the microcomputer operating system and the relationship between the various programs to be used.

CP/M and Utility Programs:

The operating system for the Vector microcomputer is called "CP/M" (Command Program for Microcomputers). It is a special program that helps all other programs, as well as the computer user, communicate with the CPU. CP/M is the first program that must be run every time that the computer is turned on. This is called "booting" the system. Most systems are booted by typing the letter "B" in reply to a "Mon>" prompt that is displayed shortly after the system is turned on. On hard drive systems, the letter "W" boots the operating system. When the system is booted, CP/M organizes the memory locations in RAM so that the CPU knows where to find the beginning of programs, etc. CP/M also establishes a communications system between RAM, the CPU and the I/O devices, as well as performing the bookkeeping functions relating to disk files. Although these functions sound quite complex, they are carried out automatically and generally without the user realizing it. After the computer has been booted, the cursor on the screen will be sitting in front of an "A>" prompt. This indicates that CP/M has been loaded into memory and the computer is ready. It also assumes that any requests to run a program or list a file will be accessed off the A disk drive. CP/M has a number of resident commands that perform general housekeeping chores for maintaining files on floppy diskettes. Below is a listing of the most important resident commands and their functions. It is assumed that users will read Zak's CP/M Handbook (1980) or the Vectorgraphic Operating System and Utilities Software Manual (1981) for further information on the use of these commands.

DIR Produces a DIRectory of the files on a diskette.

REN RENames a file.

ERA ERAses files from a diskette. Use with great care!!!

TYPE TYPes files in ASCII format on the screen.

CP/M file names all have an eight letter primary file name and a three letter extension. An example would be "DATASTAR.COM". The primary file name may be less than eight letters, but not more. The three letter extension is separated from the main file name by a period. An extension need not be given to a file, but is often useful. CP/M recognizes certain file name extensions as having special functions. For example, the "COM" extension in "DATASTAR.COM" or "STAT.COM", indicates a command file. A command file is a program that can be immediately executed. To run a "COM" program, only the primary file name needs to be typed and the command program will automatically be loaded into memory and executed. The following are important utility "COM" programs that, like the resident commands above, help with general file maintenance.

BACKUP .COM - Creates a backup copy of a diskette. To run, place original diskette in drive A (with program BACKUP.COM on it) and a blank diskette in drive B. Type "BACKUP" Source Drive "A" Destination drive "B". The program formats the new diskette, puts CP/M on it and copies over every file from the diskette in drive A.

D .COM - Displays the directory of a diskette in alphabetical order with information on file sizes and remaining space on the diskette. To run type "D". Determination of space is not accurate. Please use STAT.COM when necessary.

FORMAT .COM - FORMATs new diskettes. Diskettes must be formatted prior to use. FORMAT should be run from drive A. To run simply type "FORMAT" (an assumed carriage return at the end will start the program running). The program will then ask for the drive to format, enter B (for two floppy system) or C (for a hard drive system). Insert the blank floppy in the specified drive and hit return.

PIP .COM - Copies files from one diskette on to another. The syntax for PIP is "PIP new file = old file". For example the command line, PIP B:=A:FORMAT.COM would make a copy of FORMAT.COM which is on drive A and copy it to drive B.

STAT .COM - Determines the size of files on the directory and the amount of empty space available on a diskette.

To use STAT to find the size of FORMAT.COM type "STAT FORMAT.COM". To obtain the size of all of the files on the directory of a disk, type "STAT *.*". Type "STAT" to determine remaining space on the diskette.

SYSGEN .COM - Operating SYStem GENerator. Puts CP/M on new diskettes. Type "SYSGEN" to run. For source drive put A or type return, for destination enter the drive that has the diskette that you want to put CP/M on, probably B or C.

As with the transient commands, it is assumed that users will read Zak's CP/M Handbook, (1980) or the Vectorgraphic Operating System and Utilities Software Manual (1981) for detailed instruction on the use of these and other utility programs.

DataStar:

DataStar is a database management program package, produced by MicroPro International Corp., San Rafael, California. It provides a sophisticated and highly flexible system for designing a computer data base. DataStar directs the entering of information into the data base, retrieving information from and revising information within the data base. DataStar comes with two main program modules, "DATASTAR.COM" and "FORMGEN.COM". Note that the file BATCH.OVR is also used and must be present for DATASTAR.COM to function.

The FORMGEN module is used to design and define the parameters of the data base through the creation of a data entry screen. Figure 1 illustrates the data entry screen created for the AYK fish ticket system. In this example, there are 36 numbered locations where fish ticket information can be entered. These locations are called "fields". For example, field number six is the location where the CFEC permit number is entered. Using FORMGEN, each field can be assigned many "attributes" that help expedite data entry or verify the accuracy of the data. For example, the processor code field (Figure 1 field number 10) has been given the attribute that only on the first of a series of tickets from the same processor, does the processor code have to be keyed in. On all subsequent tickets that number is carried over automatically, saving time and effort for data entry people. In fact, only a few fields on the fish ticket data entry screen require entry from each fish ticket. These fields are within the box on the left side of the screen.

The information that creates the data entry screen and defines the data fields and their attributes is stored by FORMGEN in a file with the three letter ending "DEF". The definition file name for the fish ticket screen in Figure 1 is "BATCHad.DEF" (where a = area and d = district number). A listing of the BATCHad data entry screen and field attribute definitions is presented in Appendix A. DataStar definition files can only be modified by FORMGEN. DO NOT attempt to modify the BATCHad.DEF file for your area unless you are specifically instructed to do so by your supervisor/or the AYK Biometrician.

BATCHY1 FORM LISTING AND FIELD ATTRIBUTE DEFINITIONS

FIELD NUMBERS

```
    ********     AYK Fish Ticket Data Entry Screen     *********
    -----------------------------------------------------------
Year: _1   Region: 2  Management Area: 3  Batch Number: _4
|===================================|
|   Ticket Number:      _____5      |
| CFEC Permit Number:  ________6    |     Permit Year : _7
|                                   |     Last Name : _____8
|   ADFG Number:        ____9       |     Processor Code: ___10
|   Date as "MMDD":     __11        |
|   Statistical Area:   ___12       |
|===================================|    Gear Code: 13  Fishery Code: *
| Species   Number                  |    Period Code: 15 AYK Season: *
| Code      of Fish         Pounds  |
|===================================|
| _17   Nos: ____18  Pounds: _____19 |              value   _____20
| _21   Nos: ____22  Pounds: _____23 |              value   _____24
| _25   Nos: ____26  Pounds: _____27 |              value   _____28
| _29   Nos: ____30  Pounds: _____31 |              value   _____32
| _33   Nos: ____34  Pounds: _____35 |              value   _____36
=====================================|
```

Figure 1. Data entry screen (BATCHad.DEF) for AYK commercial salmon fish tickets.

The DataStar module is used for data entry, data retrieval, and the correction of erroneous information in the data file. To enter data into the BATCHad file defined in Figure 1, one would simply type "DATASTAR BATCHad". This would first run the command program, DATASTAR.COM, then read the definition file BATCHad.DEF. Fish ticket information is then entered into the computer by typing it into the appropriate fields in the data entry screen. When all of the necessary information has been transferred from the fish ticket, it is written to the data file. The information is then erased from the screen and the next ticket can be entered. The information from each fish ticket that is entered into the data file is called a "record". If a file has 10 records, that means that it has the information from 10 fish tickets. A computer data file can be thought of as a matrix, the data fields form the columns and each record represents a row.

All data files created in DataStar have the three letter extension "DTA". The data file created from the BATCHad.DEF definition file would be called BATCHad.DTA. The "DTA" files contain the actual fish ticket information that has been entered into the data file. Associated with this file is an "index" file with the three letter extension "NDX". The "NDX" file helps DataStar randomly access the information in the "DTA" file. Thus, for the BATCHad database, there are three required files, as follows:

BATCHad.DEF	- Defines the data entry screen, the data fields and their attributes.
BATCHad.DTA	- Contains the actual fish ticket data.
BATCHad.NDX	- Contains an index for the random access of data file BATCHad.DTA.

In general, BATCHad.DTA files will contain fish tickets listed record by record in the order that they were entered. If for example, there are 25 fish tickets in a data file, fish ticket No. 1 would correspond to record 1, ticket No. 2 to record 2, and so on. If a correction is made on ticket No. 10, DataStar flags the original record 10 as an invalid record and creates a new copy of the corrected data at the end of the file. Thus the information for fish ticket No. 10, is now located at record 26. The "NDX" file keeps track of these deleted records and where the revised information is stored so that the file can be accessed as though the fish tickets were in numerical order, when in fact they are not.

Data files that have flagged records, as in the example above, can be put back into numerical order by performing "File Maintenance". File maintenance is one of the options on DataStar's main menu screen. Performing it takes out all flagged records and puts the data back into numerical sequence. On larger data files, it can take quite a long time, so be careful not to interrupt it before it is finished. File maintenance must be performed if data have been changed or other programs in the fish ticket system will not run successfully.

The DataStar package comes with a comprehensive manual, which should be considered a part of the AYK fish ticket system. Though it is not necessary

to read the entire manual, it is essential that data entry personnel read enough to become familiar with the basic commands used with the DATASTAR module, such as moving the cursor, entering data, scanning the data file, and file maintenance. It is also recommended that area staff members involved in using the system become familiar with the use of the Formgen module to change the attributes of a data field.

Microsoft BASIC Programs:

The DataStar package simply performs the function of creating and maintaining fish ticket data files. In order to make use of the database through the generation of period summary reports and commercial harvest analysis, other programs must be called into the system. The programs that interface with the DataStar fish ticket data files are written in Microsoft BASIC and have the three letter extension "BAS", as in "EDIT.BAS". BASIC programs are run through the "interpreter" program MBASIC5.COM. The proper format to run the BASIC program listed above would be to type after the "A>" prompt, "MBASIC5 EDIT". This would load the interpreter (MBASIC5.COM) into memory and then run the program EDIT.BAS by reading it, translating it, and executing it line by line. When a BASIC program is running, it can be stopped at any time by hitting a "<control> C" (holding the CONTROL key down while typing "C"). This will stop the program and return an "OK" prompt. When you see the "OK" prompt, you know that the MBASIC5 interpreter is loaded in memory. To start the program running again, type "RUN". If you have the "OK" prompt and you want to get back to CP/M (an "A>" prompt) type "SYSTEM".

The following is a list of BASIC programs used in the AYK fish ticket processsing system, and a brief description of their function:

PARAM .BAS - Creates parameter files that identify the management area name, statistical area numbers, and gear codes. The parameter files are used by other programs listed here. This program is run once in the beginning of the season.

EDIT .BAS - Edits fish ticket BATCHad.DTA files for key punch errors. If no errors are found, appends the batch data to the Master fish ticket data file (FISH-ad.YY where YY = year e.g., 84).

CATCHa .BAS - Reads the Master fish ticket data file (FISH-ad.YY), and generates catch and effort statistics by fishing period, or from a specified range of dates. A customized version is provided for each area office (a = W, X, Y, or Z).

UTILITY .BAS - General utility program, used to access or modify data within the Master fish ticket data file.

REPMENU .BAS - Displays a menu of available output reports (generated by NEWREP1 - 7) of commercial catch and effort compiled by CATCH.BAS or CATCH.COM.

NEWREP1 .BAS - Period summary report with catch, effort, and CPUE broken down by statistical area for one fishing period. Three versions are available (NEWREP1a, 1b, 1c) offering in addition cumulative CPUE (1b) or EQ chum (1c).

NEWREP2 .BAS - Season summary report with catch and CPUE, and cumulative catch and cumulative CPUE by period for three species. (Can also send output to a text file.)

NEWREP3 .BAS - Season summary report similar to NEWREP2. Provides catch and CPUE (but not cumulatives) by period for up to six species. (Can also send output to text file).

NEWREP4 .BAS - Season summary report similar to NEWREP3. Provides catch and weight by period for up to six species.

NEWREP5 .BAS - Period processor report. Gives the production breakdown by processor for one fishing period.

NEWREP6 .BAS - Season processor report. Gives the total production by processor for the season.

NEWREP7 .BAS - Production for one processor by period for the season.

BASIC programs are normally in a readable format. Most BASIC programs can be compiled into an unreadable binary format. This entails translating the entire program into the binary code understood by the CPU (called compiling) and saving this translated version. This compiled program can then be run directly without the assistance of an interpreter. As a result the compiled program runs much faster than the interpreted version. Compiled BASIC programs acquire the "COM" extension. A compiled version of the CATCHa.BAS program (CATCHa.COM) is provided with the system as it is generally the most time consuming program to run. An additional compiled program CATCH3.COM performs a function similar to CATCHa but in addition it allows the input of more than one district.

Text Editors:

A text editor is a valuable general purpose tool that serves a number of functions in the AYK Fish Ticket System, and many other computer applications. The text editor provided with the Vector Graphics microcomputer is called Scope, and appears on your dictionary as "SC.COM". Scope is a program that can be used as a word processor to create text files (containing type written characters) such as memos, reports or tables, that can be stored on diskettes or printed on the printer. It also is used to write and/or revise Microsoft BASIC programs. As a third application it can be used to create and update data files such as the parameter files in the fish ticket system.

DataStar "DTA" files are of a format that can be accessed and modified by a text editor such as SCOPE. WARNING, modifying DataStar "DTA" files with a text editor may make it no longer readable by DATASTAR.COM. This is because the "DTA" file has been changed without the corresponding changes being made to the "NDX" (index) file. The DataStar "NDX" files are not of the format that can be accessed by SCOPE or other text editors. It is strongly suggested that users of the AYK Fish Ticket System become familiar with the use of SCOPE. The Vector Utilities Manual contains a comprehensive, yet understandable, user's manual for SCOPE.

CHAPTER III. OVERVIEW OF THE AYK FISH TICKET PROCESSING SYSTEM

The AYK Fish Ticket Processing System is structured by fishing district. A separate fish ticket data base is maintained for each commercial fishing district. A flow chart illustrating the system is presented in Figure 2. It may be beneficial to refer to the flow chart while reading this section. A detailed guide to the procedures presented in this overview is given in Chapter V.

Fish Ticket Collection, Hand Editing, and Numbering

Initially fish tickets are collected following each commercial fishing period at the area or field office where the fishery is monitored. The tickets are manually edited for missing or incorrect information, and then sequentially stamped with a six digit fish ticket number. Each area is assigned a specific range of fish ticket numbers to use. These are summarized in Appendix C.

Fish Ticket Computer Entry and Correction

Data from each fish ticket are then entered into a batch file on the microcomputer using DataStar with the data entry screen similar to Figure 1. Batch files use the naming convention "BATCHad.DTA", where "a" represents the management area code (W = Kuskokwim, Y = Yukon, etc.) and "d" denotes the district number (d = 1,2,3, etc.). Thus the file name, "BATCHY1.DTA", would correspond to the Yukon District one. The batch file is an intermediate file that is created primarily for compatibility with the statewide computer system. Batch files must contain NO MORE THAN 200 FISH TICKETS. Each fish ticket batch is given a sequential batch number falling within the range specified for that area and district as seen in Appendix C.

Once a BATCHad.DTA file has been created, it must be checked for key punch errors. This is done by the program "EDIT.BAS". The EDIT program looks at the BATCHad.DTA file, record by record, and checks the ticket number, the permit number, the statistical area, date, processor code, average weight of fish, etc. In short the EDIT program verifies each field of each record in the batch data file. Every time that an error is found it is listed on the printer. An example of the error printout is presented in Figure 3. Errors are listed by fish ticket number so that the original fish ticket can be quickly referenced. The source of the error is indicated by a brief statement on the printout such as "CFEC (PERMIT) NUMBER INCORRECT" or "SPECIES (1) AVERAGE WEIGHT ERROR". In these cases, one would check the permit number or the number and pounds of the first fish species entered against the original fish ticket to determine the data entry error.

Using the error listing produced by the EDIT program as a reference, the BATCHad.DTA file is re-accessed by DataStar and the key punch errors are corrected. After all of the errors have been corrected, File Maintenance must be performed by DataStar to ensure that the BATCHad.DTA file is in numerical sequence by fish ticket number.

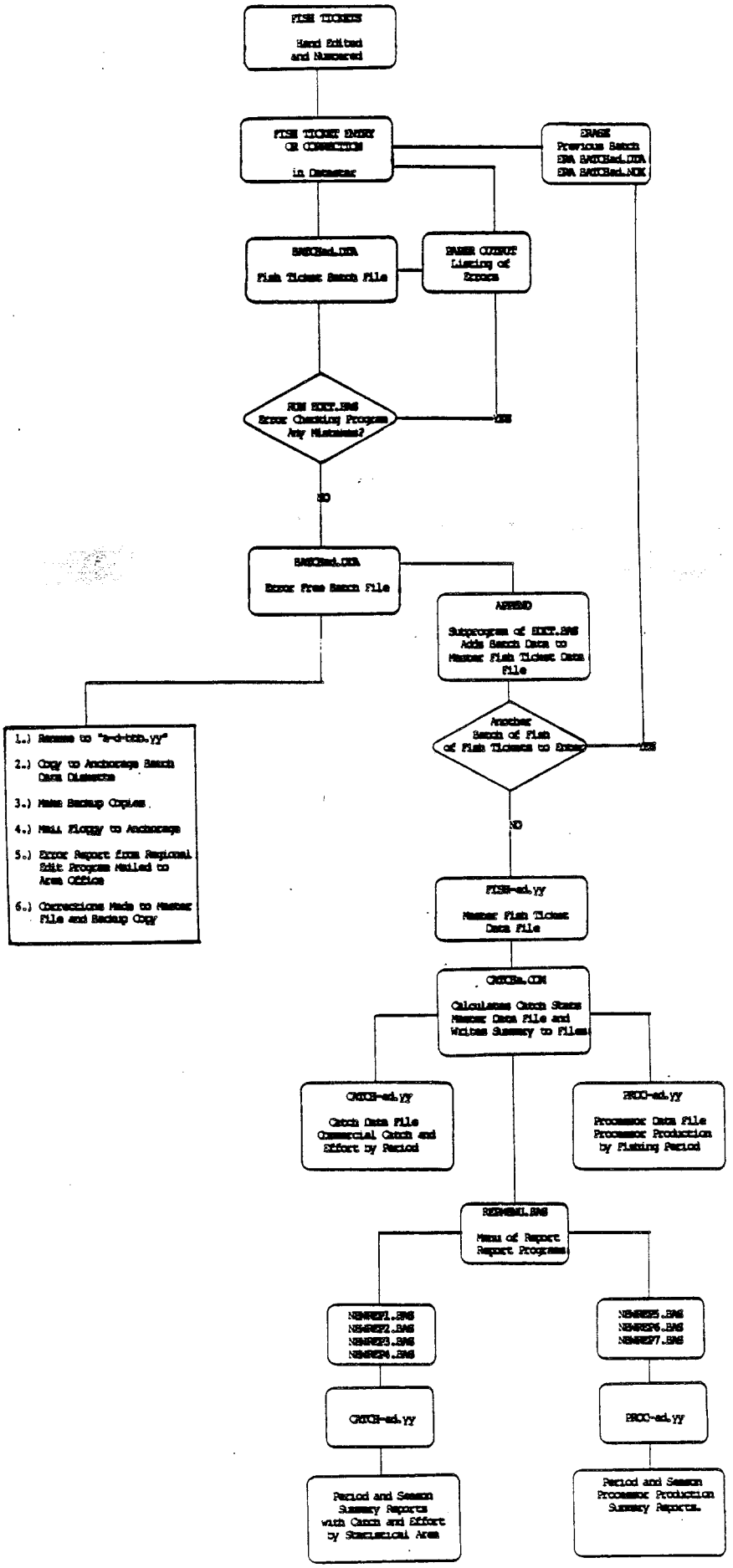

Figure 2. System overview for the processing of AYK commercial salmon fish tickets.

```
        A-Y-K FISH TICKET DATA ENTRY ERROR REPORT

              KOTZEBUE District 1

Ticket No. 750001  YEAR IS UNMATCHED IN EDIT FILE
                   CFEC YEAR IS NOT NUMERIC OR DOES NOT MATCH CURRENT YEAR

Ticket No. 750002  REGION IS UNMATCHED IN EDIT FILE

Ticket No. 750003  MGT AREA IS UNMATCHED IN EDIT FILE

Ticket No. 750004  BATCH NUMBER IS NOT NUMERIC

Ticket No. 000000  TICKET NUMBER IS OUT OF SEQUENCE

Ticket No. 750006  TICKET NUMBER IS OUT OF SEQUENCE
                   CFEC (PERMIT) NUMBER IS INCORRECT

Ticket No. 750007  CFEC YEAR IS NOT NUMERIC OR DOES NOT MATCH CURRENT YEAR

Ticket No. 750008  NAME CONTAINS NON-ALPHA CHARACTERS

Ticket No. 750009  PROCESSOR IS UNMATCHED IN EDIT FILE

Ticket No. 750010  MONTH IS IN ERROR
                   DAY (OF MONTH/DAY) IS IN ERROR

Ticket No. 750011  STAT AREA IS UNMATCHED IN EDIT FILE

Ticket No. 750013  GEAR IS UNMATCHED IN EDIT FILE

Ticket No. 750014  FISHERY CODE IS NOT 1 OR 7

Ticket No. 750015  SPECIES ( 1 ) IS UNMATCHED IN EDIT FILE
                   SPECIES ( 1 ) - AVERAGE WEIGHT ERROR
                   SPECIES ( 1 ) - MAXIMUM CATCH ERROR

Ticket No. 750016  SPECIES ( 1 ) - AVERAGE WEIGHT ERROR

Ticket No. 750017  SPECIES ( 2 ) - AVERAGE WEIGHT ERROR
                   SPECIES ( 2 ) - MAXIMUM CATCH ERROR

Ticket No. 750018  ADFG NUMBER IS NOT NUMERIC

STARTING BATCH NUMBER  = 001          STARTING TICKET NUMBER = 750001
ENDING BATCH NUMBER    = 001          ENDING TICKET NUMBER   = 750023

NUMBER OF RECORDS ENTERED =  23
NUMBER OF ERRORS DETECTED =  23
```

Figure 3. Example of an error report from running EDIT.BAS.

Building of a Fish Ticket Database and Mail in of Batch Files to Anchorage

Once again the BATCHad.DTA file is checked for key punch errors by the EDIT program. If additional errors are detected the above procedure is repeated. If no errors are found, the batch file is said to be error free and is ready to be sent on to the regional DEC/Vector data link in Anchorage, and added onto the statewide data base. Batch files must be renamed, (using PIP.COM), so that they can be identified when they arrive in Anchorage. The following naming convention is used:

"a-d-bbb.YY" where, a = Management Area Code

---

d = District Number

bbb = Batch Number

YY = Year

Hence a batch file named "Y-1-012.83", would designate the Yukon area (Y) district one, fish ticket batch number 12 from 1983. Backup copies of all fish ticket batch files are retained in the area offices.

If the EDIT program determines that the BATCHad.DTA file is error free, it automatically jumps into an Append subprogram that adds the batch file onto the Master fish ticket data file. The Master fish ticket data file is the fish ticket data base that is maintained in the area offices. As batch files are created and determined to be error free, they are successively added on to the Master fish ticket file. Thus the Master file contains all of the season's fish tickets from one fishing district. The Master fish ticket files use the following naming convention:

"FISH-ad.YY" where: a = Management Area Code

---

d = District Number

YY = Year

"FISH-Y1.84" example

The Master file contains fish ticket data in condensed format which is quite different from the format of the BATCHad.DTA files. The condensed format of the Master file can not be accessed by a text editor such as Scope. Instead, it is accessed by the program UTILITY.BAS for general maintenance purposes. Backup copies of the Master file should be made on a regular basis, to protect the data in the event that a diskette should become damaged or develop a bad sector.

Report Generation

Once all batch files from a given fishing period have been appended to the Master fish ticket file (FISH-ad.YY), summary reports can be generated. The program "CATCHa.BAS" or the compiled form, "CATCHa.COM", is used to access

the Master file to produce commercial catch statistics, CATCHa provides two options, 1) to generate commercial catch statistics from a specified fishing period, or 2) to generate catch statistics from within a specified range of dates. When option 1 is selected, CATCHa goes through the Master file, ticket by ticket and generates catch and effort statistics for the specified fishing period. First the catch and effort breakdown by species for each statistical area within the fishing district is generated, then the production break down by species for each processor. The catch and effort statistics are written to a data file named "CATCH-ad.YY" ("a", "d", and "YY" as defined above). The processor production data are written to a file named "PROC-ad.YY".

The CATCH-ad.YY and PROC-ad.YY data files contain period summary data from each fishing period for which the program CATCHa.COM has been run. If a fishing period results in no fish tickets, run CATCHa.COM anyway so zeros can be written in the appropriate place in the CATCH-ad.YY and PROC-ad.YY files. These summary statistics can be displayed in a variety of formats by running any of a number of report programs. There are seven reporting programs presented in this manual which access the above data files. Individual area offices with unique needs or who prefer a different style of presenting the data, may wish to develop their own report programs.

The report system (NEWREP1.BAS to NEWREP7.BAS) are all accessed through one master menu program called "REPMENU.BAS". The menu program presents a list describing the seven report formats. Reports are generated by simply entering the number of the desired report format from the option list. Examples of report outputs are provided in Appendix B.

When option 2 of program CATCHa.COM is selected commercial catch statistics from within a specified range of dates is produced. This option may be used to determine catch and effort (number of unique CFEC permit numbers) for the entire season. An output file name must be specified. The data are presented using option 1 of REPMENU and supplying the previously defined output file.

An additional program, CATCH3.COM, is provided to determine the total number of unique permits from more than one Master file. If for example, a management area has 3 districts, and thus three Master fish ticket files, CATCH3 can be used to access all three master files to determine the number of unique permits. Output from this program goes directly to the printer.

Summary

Precise records on each batch of fish tickets are maintained as they pass through key points of these processing procedures. This is essential to ensure that there are no duplications or omissions and that the integrity of the final data base is maintained. Log forms for manually editing, data entry, and mailing batch diskettes to Anchorage are illustrated in Appendix D.

The following steps further illustrate the work flow in processing AYK fish tickets:

1) Fish tickets are collected after each fishing period.

2) All tickets are manually edited for completeness.

3) Tickets are numbered sequentially and separated into batches of 200.

For each batch of tickets

4) Enter data from a batch of fish tickets into BATCHad.DTA with DataStar.

5) Computer edit batch file (BATCHad.DTA) with EDIT.BAS.

6) Correct key punch errors in batch file with DataStar.

7) Do file maintenance on the batch file in DataStar.

8) Run edit program EDIT.BAS again to verify that no errors exist.

9) Append batch file (BATCHad.DTA) onto the Master fish ticket file (FISH-ad.YY) with EDIT.BAS.

10) Erase BATCHad.DTA and BATCHad.NDX from system diskette.

Do steps 4-10 for each batch of fish tickets produced in step 3

11) Run program CATCHa.COM for the fishing period of step 1.

12) Run REPMENU.BAS and generate the reports specified by your supervisor.

CHAPTER IV. CONFIGURING THE SYSTEM TO A SPECIFIC AREA OFFICE

This section is provided to explain how the AYK fish ticket system can be configured to meet the unique requirements of a specific area office. The initial program diskette, should have on it the files listed in Figure 4.

Parameter Files

The programs in the system rely on a number of parameter files to define area-specific information such as species of fish, statistical area numbers, processor codes, gear codes, and fishing dates. Figure 5 provides a listing of the parameter files and the information they supply to system programs. Appendix E contains the record format of all parameter files. The parameter files ending in "PRM" (HEADER, GEAR, and STAT-ad), are all produced by running the program "PARAM.BAS". Running this program is very self explanatory. See Appendix C for an example specific to your area. The parameter files ending in "DTA" are generated through DataStar. Each of these parameter files have a corresponding "DEF" and "NDX" files.

The "SPECIES.DTA" file must be generated at the beginning of the season. This file can contain a maximum of six species, (roe is counted as a species). These species must be identified at the start of the season, and may not be changed. If they must be changed mid-season, see the troubleshooter's guide in Chapter VI. After entering in the species information in DataStar, perform file maintenance, in order to insure that there are no delete flags in the file, and to put the file in ascending order by species code.

The "PROC.DTA" file can contain a maximum of 20 processors. The first field in the file identifies the total number of processors in the file. This total must be given at the start of the season, and may not be changed. If you know you will have 10 processors in your area, it would be wise to list 15 as the total number of processors in field one. This would leave five extra positions in the file so that unexpected processors that turn up during the season can be added. After the processor file is set up run file maintenance, thereafter do not change the order of the processors and only add to the bottom of the file. Running file maintenance mid-season and changing the order of the processors will cause incorrect summaries in the processor report programs.

The "DATEad.DTA" file contains the dates open to fishing, the hours that were fished each day, and the corresponding period and season numbers. Because this information is not known in advance of the season, this file must be updated regularly within the season. The file contains one data record for each calendar date that was open to fishing. For example, a 36-hour fishing period beginning at 6:00 pm 1 June, and ending 6:00 am 3 June, would require three data records. All three records would have the same period code, and the fishing times would be 6 hrs, 24 hrs, and 6 hrs, respectively for 1, 2, and 3 June. Separate DATEad.DTA files are maintained for each district "d" in the area "a" for which the system is configured.

Two parameter files created by DataStar (SPECIES, and DATEad) are all referred to by BATCHad.DEF during fish ticket data entry. In this manner invalid fish-

```
DATASTAR.COM
FORMGEN .COM          DataStar Package Programs
BATCH   .OVR

BATCHad .DEF
DATEad  .DEF          DataStar Definition Files.
PROC    .DEF
SPECIES .DEF

BACKUP  .COM
D       .COM
FORMAT  .COM
PIP     .COM          Utility Programs
STAT    .COM
SYSGEN  .COM

MBASIC5 .COM          Microsoft BASIC Interpreter

CATCHa  .COM          Compiled CATCH Program
CATCH3  .COM

PARAM   .BAS
EDIT    .BAS
CATCHa  .BAS          BASIC Programs
UTILITY .BAS
REPMENU .BAS
NEWREP1 .BAS
    :
    :
NEWREP7 .BAS
```

Figure 4. Listing of the essential files needed to generate an AYK Fish Ticket System program diskette.

HEADER	.PRM	-Provides basic information for report headers, season year, number of districts in the area, and names of other parameter files.
GEAR	.PRM	-Defines the gear types in the area, listed by name and code.
STAT-ad	.PRM	-Lists the statistical area numbers within a district.
DATEad	.DTA	-Lists the fishing periods by number, the dates for each fishing period, and hours fished.
PROC	.DTA	-Lists the processor's names and codes
SPECIES	.DTA	-Lists the salmonid species names, codes and data of weight and maximum catch

Figure 5. Listing of the parameter files used by the AYK Fish Ticket System.

ing dates, or species codes are all caught at the time of data entry. Other parameter files are referenced by the edit program at which time invalid processor codes, gear codes, and statistical areas are detected.

Procedure to Begin Each Season

It is best at the start of each season to generate a new program system diskette with the before mentioned files on it (Figure 4). Check to see if it is sent by the Biometrician in Anchorage or provided by an area staff member. Starting with new diskettes will reduce the likelihood of running into problems with bad sectors as a result of worn out diskettes. If you have a Winchester hard drive, it is best to remove all of the files from the disk and reformat the surfaces prior to each field season.

In general the SPECIES.DTA parameter file will not need to be changed from year to year. It can simply be PIPed onto the new program diskette, from the previous year. Don't forget the corresponding "NDX" files. You may create a new file for 1984 using the data from Appendix C for your area office.

The HEADER.PRM, PROC.DTA, and DATEad.DTA files all have to be generated every year. The HEADER.PRM, GEAR.PRM, and STATad.PRM files are created by running the PARAM.BAS program. The PROC.DTA and DATEad.DTA files are created through DataStar from the original "DEF" files.

Pre-season Check List

Don't forget that each DataStar "DTA" file must have the corresponding "DEF" and "NDX" files associated with it, on the new program diskette. The following pre-season check list may prove useful.

1) Generate a new system diskette (reformat the Winchester hard drive if applicable) with the files indicated in Figure 4 for your area office.

2) Create all parameter files with current year information.

   - Run Program PARAM.BAS

   - Create the SPECIES.DTA and SPECIES.NDX files. Use the following procedure, user replies underlined.

     A>DATASTAR SPECIES

     Enter disk drive to use for the data file (SPECIES.DTA)....A

     Enter disk drive to use for the index file (SPECIES.NDX)...A

     Enter data found in Appendix C for your area office
     Press the RETURN key to write each data record to the file

     When all data have been entered Press CTRL B

Exit current form Press CTRL E

Do file maintenance type F

Enter disk drive (A/B..)A

Enter name of batch file:MSPECIES

Hit the RETURN key Press the RETURN key

File maintenance is complete. Hit ESC key

Exit DataStar type E

Press the RETURN key

Press CTRL C

- Begin files DATEad.DTA and PROC.DTA if data are available (See Chapter V, Phase II-d, page 36).
- Check that all parameter files of Figure 5 are present by typing "D"

3) Check that all manuals (including this one) have been updated as necessary, and are available.

4) Set up log notebooks as desired for orderly filing of log sheets.
   - Set up log sheets for each district (see Appendix D)
   - See Appendix C for your area office

5) Check over your computer system to be sure everything is working properly.

6) Insure that the following items are available:
   - Stamper
   - Stamper Ink
   - Floppy mailing envelopes (with card board inserts)
   - Fish ticket storage envelopes
   - Binder clips
   - Computer paper, 8.5 x 11 inch horizontal and vertical
   - Spare printer ribbons

- Post-it note pads
- Red pens for manual editing fish tickets

CHAPTER V. GENERAL OPERATING PROCEDURES FOR PROCESSING AYK SALMON FISH TICKETS

Introduction

The processing of salmon commercial fish tickets has been broken into five phases: (1) manual editing, (2) computer entry, (3) computer editing, (4) set-up of diskettes and mail in of data to Anchorage, and (5) report generation. An overview of the phase is followed by a detailed outline which directs the first time user through all steps of the phase. Using this chapter the reader should be able to process all fish tickets collected from a given fishing period beginning with manual editing and ending with the generation of summary reports for the area management biologists.

Phase I. Manual Editing and Numbering of Fish Tickets

Phase I involves the collection and inspection of salmon commercial fish tickets by the data entry person. Generally fish tickets are processed by fishing period and fishing district. Distinct fishing periods arise as commercial fishermen are rarely allowed to fish continuously during the summer months. Rather, the Department specifies fishing times with closures in between to evaluate the catch information. These allowable fishing times are called fishing periods, are chronologically numbered and are generally 12, 24, or 48 hours in duration.

After a fishing period the fishery management biologist requires those who buy the fishermen's catch (processors) to provide a copy of the fish tickets within some specified time period. The area biologist or office supervisor should determine if fish tickets need to be collected and assign the responsibility to a member of the office staff. If they are delivered determine where the fish tickets can be found in the area office. Also request from your supervisor the time to expect fish tickets after a fishing period ends. Lastly, determine if you need to annually log in the arrival of fish tickets from each processor, and if so prepare a log sheet.

The area office you work in may be responsible for more than one fishing district. Learn the name and number of each district as fish tickets must be kept separate by district. See Appendix C for information about your management area and office.

A. Manual editing of fish tickets:

1. Collect fish tickets

   a. Collect fish tickets from processors following each fishing period.

   b. Log in that the processor has provided its tickets.

   c. Separate by district and processor.

d. Separate by gear type - Within a district and processor, tickets should be sorted by gear type if more than one exist. This applies only to the upper Yukon area where fishwheel tickets must be separated from gill net tickets for ease of computer entry.

2. Manually edit and correct the fish tickets. The items to check are identified on the fish ticket in Figure 6.

a. Fisherman's name and CFEC permit number - If unreadable, or if any other problem exists look it up in the permit listing and correct the fish ticket.

1. Listings of permits on microfiche arrive every month. Check with your supervisor as to where they are stored, where the microfiche reader is, how the listing is organized, or any other questions you might have about CFEC permit numbers.

2. For confiscated fish, fishermen without permit numbers, illegal fisherman, or test fishing projects selling their catch write in the correct special permit number (see Appendix F for the appropriate code).

b. Processor code - Correct or enter if missing.

1. If missing, copy the number from a correct ticket previously edited from that processor. Look at last year's code in Appendix C for your area office if all tickets are missing the code for that processor.

2. Also check computer service's listing of processor codes which will be provided (see Appendix F).

3. Note that all catcher/sellers use a processor code of C5000.

c. Date - Check to be sure that the date is an allowable date for that fishing period.

1. As an example - Fishing period 3 for District 1 lower Yukon area was from 6:00 am to 12:00 pm on 19 June 1984. Fishermen will stop fishing at midnight and go to sell their catch. Watch for dates 20 June 1984 as that is when they were sold and not caught. The only allowable date for these tickets would be 19 June 1984 and all others must be changed.

2. If in doubt about allowable fishing dates for a fishing period ask your supervisor.

d. Statistical area - Check that the proper stat area code is on the ticket given your knowledge about what district the processor was in and allowable stat areas. See Appendix C for stat areas appropriate to your management area. Ask your supervisor if in doubt.

PLACE WRAPAROUND COVER UNDER GOLDENROD COPY

DISTRIBUTION: WHITE - PURCHASER · YELLOW - FISH & GAME · PINK - SELLER · GOLDENROD - PURCHASER

PURCHASER

ALASKA DEPARTMENT OF FISH AND GAME

SALMON TICKET

DO NOT WRITE IN THIS SPACE

A 166151

Boat Name

Fishery

Name

Permit No.

ADF&G NO.

PURSE SEINE · BEACH SEINE · DRIFT NET · SET NET · HAND TROLL · POWER TROLL · OTHER

TIME GEAR OPERATED IN HOURS

Cannery

Company

DATE

Area Caught

SHOW NEAREST BAY OR HEADLAND

STAT. CHART NUMBER

SPECIES	CODE	NUMBER OF FISH	NO. OF POUNDS	PRICE	AMOUNT
KINGS	410				
REDS	420				
COHOS	430				
PINKS	440				
CHUMS	450				
SALMON ROE	400				
CHAR	520				
STEEL-HEAD	540				
WHITE-FISH	580				
Sub-Total					
Less Aquaculture Assessment @					
TOTAL					

Cash Advance

Fish Received by

NOT NEGOTIABLE #

FISH DELIVERED HEREBY WERE CAUGHT IN COMPLIANCE WITH STATE LICENSING LAWS AND STATE LABOR LAWS AND REGULATIONS.

Figure 6. Series A fish ticket.

e. Numbers and weights of fish - Check that they are legible and correspond to the correct species code on the ticket.

3. Bundle and label the fish tickets - When the manual edit is completed, bundle those tickets by placing a rubber band around them and a stick-on label on the first ticket. Write EDITED, your initials, and the date on the label of the fish ticket bundle.

B. Stamp fish tickets with a six digit fish ticket number:

1. Check number of last ticket stamped - Open the fish ticket data entry logbook (Appendix D, Figure 1) to the district these tickets are from. Note last fish ticket number previously stamped.

2. Set stamper to the next number, it automatically increments by one.

3. Stamp tickets - In the upper right hand corner. Red ink is often most legible (see Figure 6, item A).

4. Sort tickets into "Batch" piles of 200 - Each pile of 200 tickets becomes a "batch". Remember that the last batch of a district and/or period may be less than 200 tickets.

NOTE:

1-200 is 200 tickets

200-400 is 201 tickets and is unacceptable for subsequent programs.

a. Within a batch put a stick-on label on the fish ticket covering that item each time the:

1. Processor changes - place over processor code and write on it NEW PROCESSOR.

2. Gear type changes - applicable only for upper Yukon, place over CFEC permit number and write on it NEW GEAR TYPE.

5. Place fish ticket "Batches" in an envelope (200 fish tickets) which has a form stamped on it. On the form write in the batch number and the range of ticket numbers. Look at your logbook for the next batch number.

6. Log in that tickets are edited - Indicate on your log (see Appendix D, Figure 1) the date, your initials, the fishing period (1, 2, 3, etc.), the batch number, and the range of fish ticket numbers for each envelope.

NOTE: You may want to write the information about the last batch in pencil if it has less than 200 tickets. Then if more tickets arrive, say from another processor, they could be added to this batch to fill it to a full 200 tickets, and the log could be changed.

7. Store batches in a designated place - They are now ready for entry onto the computer.

Phase II. Entering a Batch of Fish Tickets onto the Microcomputer

The AYK Region has been divided into four areas for the purposes of managing the commercial fisheries. Each management area is subsequently divided into at most six fishing districts. All areas use the same fish ticket system but customize through the names they give their files. Within the discussion of this Phase the reader must provide the management area letter a (a = W, X, Y, or Z) and the district number d (d = 1, 2, ..., 6) appropriate to the area and district from which the batch of fish tickets you wish to enter originated. Appendix C provides area-specific information involving management area letters, district names, and numbers.

A. Procedure to use for the first fish ticket batch of the fishing period:

1. Check the DATEad.DTA file - Does it have the dates and hours fished for this fishing period?

   a. Create file if this is the first batch of the season - Go to D-1 page 36.

   b. Check file - You can use the following commands to scan file.

      A>TYPE DATEad.DTA the file is displayed on the screen as:

      AYK Season code, Period number, Month-day fished, Hours fished

   c. Are all dates and hours fished for current fishing period present in file - If not go to D-1 page 36.

2. Check the PROC.DTA file

   a. Create file if this is the first batch of the season - Go to D-1 page 36.

   b. Check file - Use the following commands to scan file.

      TYPE PROC.DTA

   c. Are all processor codes in the file necessary to enter this period's tickets - If not go to D-1 page 36.

B. Entering a batch of fish tickets in DataStar for a given area (a) and district (d):

1. Enter DataStar - Display the correct data entry screen by typing the underlined command.

   DATASTAR BATCHad

2. Create the batch data and index files (BATCHad.DTA and BATCHad.NDX). If this is to begin the entry of a given batch of tickets the following questions will be asked. Answers you supply are underlined. If

you just want to continue adding tickets to a batch previously started go to step 4 below:

Enter disk drive to use for the data file (BATCHad.DTA)...A

Enter disk drive to use for the index file (BATCHad.NDX)...A

WARNING If this is truly the first time any tickets from this particular batch have been entered the above questions must be answered. If the above questions are not asked it means the data file and index file (BATCHad.DTA and BATCHad.NDX) already exist from the previous batch. If the questions are not asked and should be, exit DataStar immediately by:

Typing E

Press the RETURN key

Press CTRL C (hold the CTRL key down while typing C)

Look at your logbook to make sure that the previous batch was computer edited, added to the Master file (FISHad.YY file) and copied to the Anchorage batch file diskette. If you are sure that the processing of the previous batch file is complete erase the following files from the diskette by typing:

ERA BATCHad.DTA

ERA BATCHad.NDX

Then go back to 1 above.

3. Enter the Add mode

   a. DataStar places you automatically in the ADD mode if the data file (BATCHas.DTA) is empty.

   b. Otherwise - After the data entry screen (Figure 7) is displayed type A to enter the ADD mode (go to step 5 below).

4. Procedure to resume entering tickets if the batch file has already been created. If some tickets from this batch have already been entered and you are merely continuing after a break away from the computer, note that DataStar goes directly to the data entry screen (Figure 7) when you type DATASTAR BATCHad.

   a. Type DATASTAR BATCHad to display the fish ticket data entry screen if it does not currently appear.

   b. Type A to enter the ADD mode.

   c. Enter the batch number and the full CFEC permit number. Note

```
ADD MODE                                        current form=BATCHad
Enter character to select new mode:
A = ADD new records          K = select records by KEY     E = Exit current form
I = SCAN in Index order      D = SCAN in Data file order   M = edit scan Mask
B = select Batch file        V = Verify batch file
F = File maintenance         J = Help                      SPACE = current mode

********      AYK Fish Ticket Data Entry Screen      ***********

Year: 83   Region: 3  Management Area: a   Batch Number: ___
I=================================I
I   Ticket Number:      ______      I
I CFEC Permit Number:   __________  I     Permit Year: 83
I                                   I     Last Name:
I   ADFG Number:        _____       I     Processor Code: _____
I   Date as "MMDD":     ____        I
I   Statistical Area:   _____       I
I=================================I     Gear Code: __  Fishery Code: 1
I Species   Number                  I     Period Code: __ AYK Season: _
I Code      of Fish       Pounds    I
I=================================I
I ___   Nos: ______  Pounds: ______ I              value  0000000
I ___   Nos: ______  Pounds: ______ I              value  0000000
I ___   Nos: ______  Pounds: ______ I              value  0000000
I ___   Nos: ______  Pounds: ______ I              value  0000000
I ___   Nos: ______  Pounds: ______ I              value  0000000
I=================================I
```

Figure 7. The data entry screen displayed in DataStar and used to enter salmon fish ticket data into "BATCHad.DTA".

that DataStar will calculate the ticket number and the cursor will not enter this field thereafter.

d. Complete the entry of this fish ticket. Press CTRL B and verify that the displayed ticket number matches that actually stamped. If it does not, press the DEL key which clears the screen of data and enter the correct ticket which matches the previously displayed ticket number.

e. Go to Step 5 below to continue the entry of a batch of tickets.

5. Entering information off the first fish ticket of a batch (Figure 7). The following information when entered with the first fish ticket of a batch is automatically carried over by the computer for subsequent tickets.

a. Batch number - It is repeated for all tickets entered in this session in DataStar.

b. The stamped ticket number - After the first entry DataStar increments by one and writes the ticket number. The cursor doesn't enter this field for the rest of this session in DataStar.

c. The first four characters of the CFEC permit number - Enter the entire 10 or 11 characters for the permit and the computer then copies the first four characters and only the last 6 or 7 need be entered thereafter.

WARNING All AYK permits begin S04 or S08 where 0 is zero and not the letter O.

d. The five digit processor code - Be very careful. Enter the full five characters with leading zeros if necessary (e.g., 35 becomes 00035). It is also repeated by the computer and can not be changed in the ADD mode. If you enter it incorrectly do the following:

Press CTRL E (to exit current mode)

Type E

Press CTRL C (to exit DATASTAR)

Type DATASTAR BATCHad (to re-enter DATASTAR)

When the data entry screen stabilizes type A and go back onto the ADD mode (if you are not already there) and enter that fish ticket again.

e. Enter a four digit date - Place a leading zero as 0614 not 614.

f. Continue to complete the entry screen being careful to add all species for which numbers caught and weights are present on the

fish ticket. Double check that the correct species code goes with each entry and the number of entries on the tickets equals those displayed on the computer screen.

g. Press CTRL B when the information on the last species caught has been entered.

6. Place DataStar in the Verify mode.

a. When CTRL B is pressed or the last field on the screen is completed (i.e., 5 species were present on the ticket) DataStar goes into the Verify mode.

b. Check the ticket number - Note that after the first ticket DataStar calculates and writes the ticket number. It is displayed during the VERIFY mode and can be checked against the number actually stamped on the fish ticket.

c. If the number calculated by DataStar does not match that actually on the fish ticket stop and refer to the Troubleshooting Section (page 66) for details on correcting the situation.

7. Write ticket to data file - Press the RETURN key twice to write that ticket's information onto your data file. At this time check that the gear code, AYK fishery code, and period code is displayed correctly.

8. Enter next fish ticket - Continue data entry of the next fish ticket, note:

a. Only the last 6 or 7 characters of the CFEC permit number need be entered after the first ticket.

b. Again when entry is complete press CTRL B, verify that the calculated ticket number is correct, press the RETURN key twice to write the ticket to your BATCHad.DTA file.

c. Continue entering tickets until either:

1. A new processor code needs to be entered (see section II-C page 35 for procedure).

2. A change needs to be made to the first four characters of the CFEC permit number (see section II-C page 35 for procedure).

3. All tickets of the batch have been entered or you must stop entering for some reason.

9. Exit the ADD mode when all tickets for that batch have been entered (or if data entry must stop for the present) - Exit the ADD mode using the following procedure:

a. Press CTRL E (to exit the ADD mode)

b. At any time the add mode and DataStar can be exited and the machine turned off. See Step 11 to exit DataStar and do step 1 and 3 to re-enter and continue keying tickets of a given batch.

10. Perform file maintenance before existing DataStar - If all tickets for that batch have been entered if not go to 11. The following sequence is necessary, responses are underlined.

Type F

Enter disk drive (A/B...): A

Enter name of batch file: MBATCHad

Hit the RETURN key Press the RETURN key

The data entry screen will again appear and each record of the data file will be displayed. When file maintenance is complete the following message will be displayed and the ESC key should be pressed.

File maintenance is complete. Hit ESC key:

11. Exit DataStar and return to CP/M - Use the following procedure:

Type E

Press the RETURN key

Press CTRL C

12. Go to Phase III - Computer Editing and Appending of Batch Files

C. Procedure to change fields that are repeated on the data entry screen:

1. Changing processor codes

a. When the next ticket to be entered is from a different processor the code displayed on the screen must be changed.

b. Exit the ADD mode by pressing CTRL E.

c. Type M to enter the EDIT SCAN MASK mode.

d. Press CTRL F enough times to move the cursor to the first character of the processor code field.

e. Type in the new five digit processor code.

f. Press CTRL E to exit EDIT SCAN MASK mode.

g. Type A to enter the ADD mode and continue to enter tickets.

h. Return to Phase II-B.8c above (page 34).

2. Changing the first four characters of the CFEC permit number

a. When the next ticket to be entered is for a different gear type (which is the second and third character of the permit number) the first four characters of the CFEC permit number displayed must be changed.

b. Exit the ADD mode by pressing CTRL E.

c. Type M to enter the EDIT SCAN MASK mode.

d. Press CTRL F enough times to move the cursor to the first character of the CFEC permit number.

e. Type in the new four characters (in AYK only the upper Yukon has two gear types S04P and S08P).

f. Press CTRL E to exit EDIT SCAN MASK mode.

g. Type A to enter the ADD mode and continue entering tickets.

h. Return to Phase II-B.8c above (page 34).

D. Updating or creating DATEad.DTA and PROC.DTA parameter files.

1. Update/Create the DATEad.DTA file with the dates and hours fished for this fishing period. Use the following procedure, the responses you type are underlined:

a. A> DATASTAR DATEad

NOTE: Each area office requires their management letter (a = W,X,Y, or Z) and then the particular district of interest (d = 1,2,3,4,5, or 6).

b. If this is the first fishing period of the season the data and index files must be created and the following questions are asked: (your answers are underlined).

Enter disk drive to use for the data file (DATEad.DTA)....A

Enter disk drive to use for the index file (DATEad.NDX)...A

c. If the file is empty DataStar passes directly into the ADD mode go to e below.

d. When the data entry screen is displayed (as in Figure 8) type A to add fishing period information.

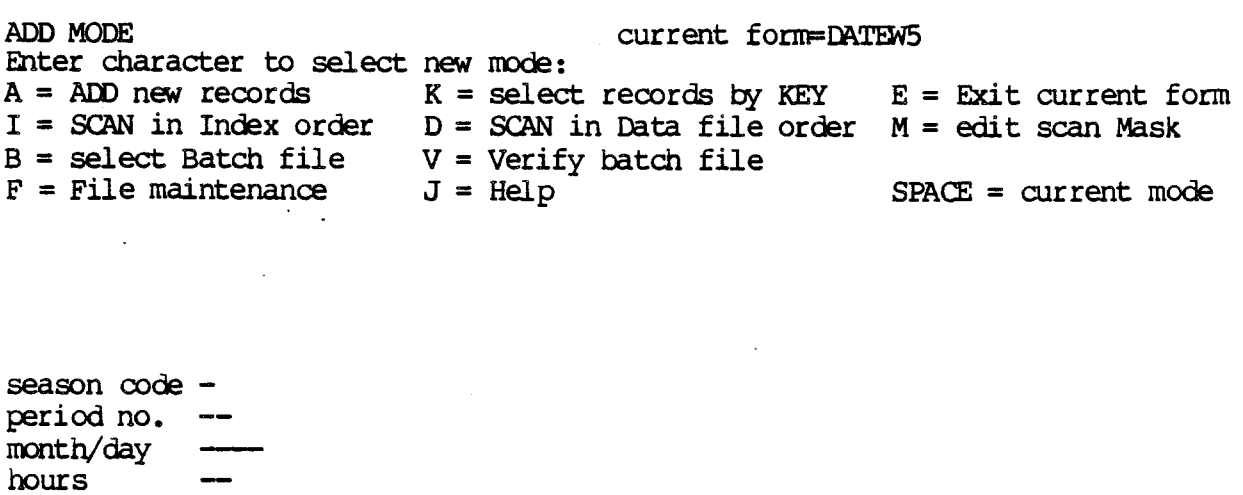

Figure 8. The data entry screen displayed in DataStar and used to enter fishing period data into the DATEad.DTA file.

e. Type in data as called for on the screen for this fishing period. This will be provided by your supervisor after every fishing period. You may want to refer to page 12 for a review of this file and the defined items of information (fields).

1. An example - If this was the second fishing period and ran from 6:00 am 14 June to 6:00 am 15 June you would need to add two records to the file, one for 0614 with 18 hours fished (and all other items filled in) and one for 0615 with 6 hours fished.

2. Note - The season code was first set for AYK where some areas use a code 1 for the chinook salmon season and code 2 for the chum salmon season. Other areas may use code 1 for all season, check with your supervisor and Appendix C for your area office.

e. After entering all required fields (items) for one record press the RETURN key.

f. Add information for each calendar date that the fishing period spans, when finished press CTRL E. If you will be entering data from several fishing periods, the Datead.DTA file may be updated for several fishing periods at a time.

g. Perform file maintenance before exiting DataStar. The following sequence is necessary, responses are underlined.

Type F

Enter disk drive (A/B/...): A

Enter name of batch file: MDATEad

Press the RETURN key Press the RETURN key

The data entry screen will again be displayed and each record of the DATEad.DTA file will appear. When file maintenance is complete the following will be displayed and the ESC key should be pressed.

File maintenance is complete. Hit ESC key.

h. To exit DataStar:

Type E to exit current form (i.e., this data entry screen).

Press the RETURN key.

Press CTRL C.

2. Update/Create the PROC.DTA file - If new processors have submitted fish tickets this fishing period and their processor codes are not in the file. If not continued at B of Phase II page 30.

   a. If this is the first fishing period the PROC.DTA file must be created. Go to e below.

   b. First list the file to see what processor codes have been entered. To do this make sure the printer is on and type the underlined command.

      A> PIP LST:=PROC.DTA

   c. The file should then be printed out on the printer where each record has its fields (items) separated by commas as:

      number of processors, processor's name, processor's code

      20, Fish Buyer, Inc., F3195 (example)

   d. Determine if all processor codes you will be entering off the fish tickets of this fishing period are listed in the PROC.DTA file. If all are listed continue with Phase II B page 30.

   e. Add new processor codes to or create the PROC.DTA file for the first period. Use the following procedure, responses to type are underlined.

      1. A> DATASTAR PROC

      2. If this is the first fishing period for this district the PROC.DTA file will be created and the following questions must be answered (as underlined).

         Enter disk drive to use for the data file (PROC.DTA...)...:A

         Enter disk drive to use for the index file (PROC.NDX...)..:A

      3. If the file is empty DataStar passes directly into the ADD mode - If this is the case go to 5 below.

      4. When the data entry screen is displayed (as in Figure 9) Type A and go into the ADD mode.

      5. For the first field enter the same number of processors as the number that was displayed when PROC.DTA was listed on the printer (e.g., enter 20 from the example in 2.C page 35).

      6. If PROC.DTA is being created ask your supervisor how many processors are expected or refer to Appendix C for your area office and see what was needed last year. Always leave room for a few late arrivals.

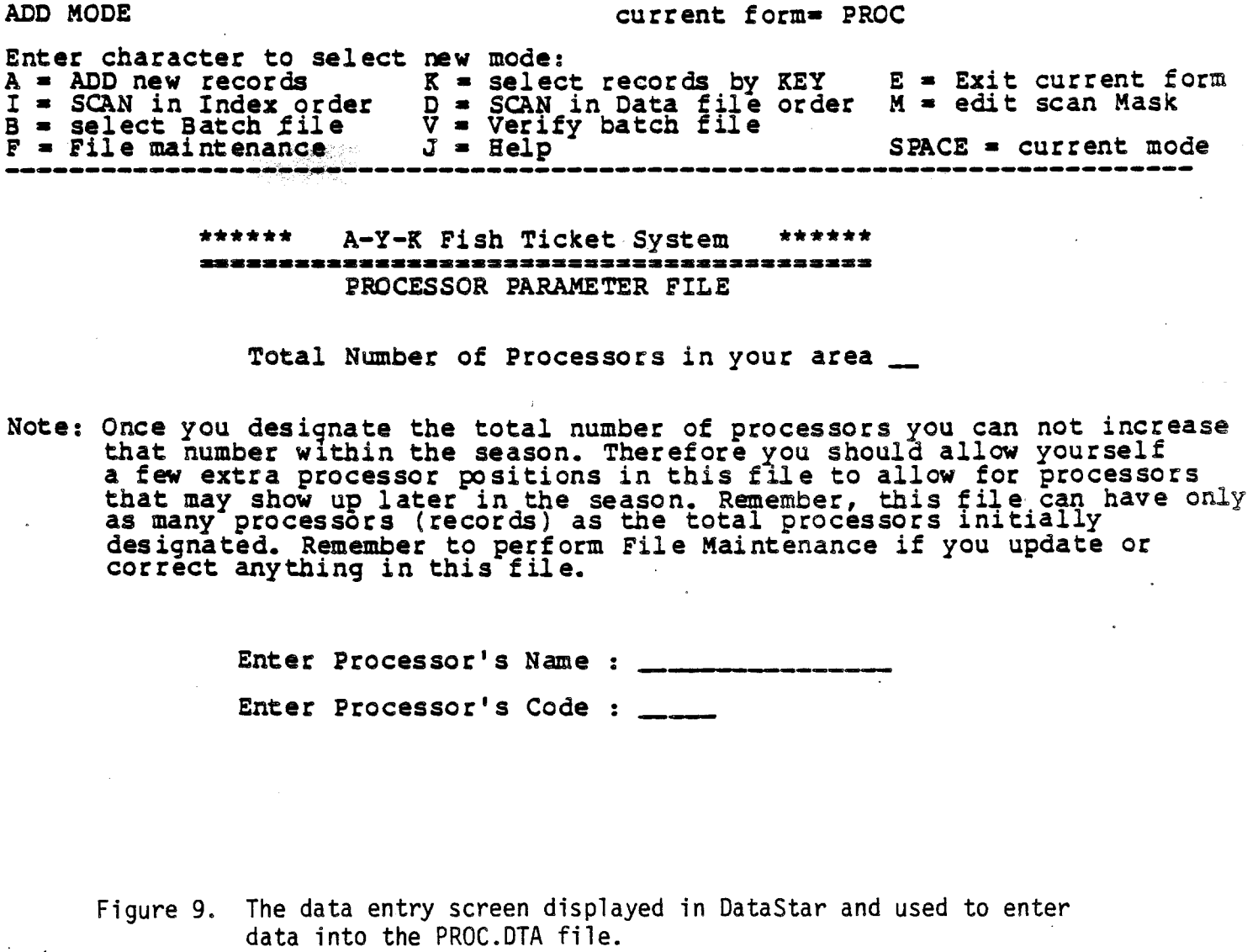

Figure 9. The data entry screen displayed in DataStar and used to enter data into the PROC.DTA file.

7. Enter the fields indicated by the entry screen.

8. Press the RETURN key to write these data just entered onto the PROC.DTA file on your diskette. You may enter another processor or if finished exit the ADD mode by pressing CTRL E.

f. Perform file maintenance before exiting DATASTAR. The following procedure is necessary, responses are underlined.

Type F

Enter disk drive (A/B...):A

Enter name of batch file: MPROC

Hit RETURN Press the RETURN key

The data entry screen will again appear and each record of the PROC.DTA file will be displayed. When file maintenance is complete the following will be displayed and the ESC key should be pressed.

File Maintenance is complete, hit ESC key: Press the ESC key.

g. Exit DataStar using the following procedure:

Type E (to exit current form)

Press the RETURN key

Press CTRL C

Phase III. Computer Editing and Appending of Batch Files

This phase involves the computer editing of the current batch file (BATCHad.DTA) and appending it to the appropriate Master fish ticket data file (FISH-ad.YY). Initially a cycle of computer editing and correction of any keypunching errors in the current batch file is followed until the edit program identifies no errors. The same program then proceeds to append it to the Master file for that district. It is very important that the current batch file be properly prepared for computer editing. Remember that all tickets for that batch (<=200) must have been entered in DataStar and file maintenance performed. The edit program will display an error message if file maintenance has not been performed and will return you to CP/M. Note, do not perform file maintenance if corrections were made in Scope.

A. Run program EDIT.BAS - Computer edit current batch file:

1. Check Printer. Be sure printer is turned on and is operable. Program will freeze up system otherwise.

2. Procedure to run EDIT.BAS - Type the following underlined responses.

   A> MBASIC5 EDIT

   Enter single digit District number d

   (Reply with the district number (d = 1,2,.., or 6) for the current BATCHad.DTA file you wish to edit)

3. An error report is printed by the program (Figure 3). If any data entered from the tickets are found to be incorrect that ticket number is printed along with an error message to indicate which item(s) was found in error.

   Note: A period (.) is displayed on the terminal after each ticket is edited. This indicates that the program is operating properly though nothing may be printed by the printer if errors are not encountered.

4. A summary statement is added to the error report (Figure 3). When the entire batch has been edited. From it check the following:

   a. Starting and ending ticket match that entered in the log book and that actually stamped on the original tickets.

   b. Starting and ending batch number are the same and match that entered in the log book.

5. Decide whether to proceed to the Append subroutine - The following message may be displayed if five or less non-fatal errors were detected. If more were detected the message will not be displayed, the program ends and you should proceed to Step C.

Type "YES" to go to the APPEND Subroutine.

a. If any errors were detected type NO - If this is the first time the current BATCHad.DTA file has been computer edited be sure to type no.

b. To correct errors found by the EDIT.BAS program go to Phase III-B "Correcting errors in the fish ticket data of the BATCHad.DTA file in DataStar".

c. If no errors were detected type YES or if the errors found by the computer are just extreme fish weight values that have previously been compared to the original ticket and found to be correct.

6. Go to Phase III-C for the Append subroutine - see page 45.

B. Correcting errors in the BATCHad.DTA file using DataStar:

1. Enter DataStar - Type the following underlined response.

A> DATASTAR BATCHad

2. Enter the scan by key mode and make corrections to the data file.

a. Type K

b. Enter the number of the first (or next) ticket found in error.

c. Data entered for that ticket will then be displayed. Proof all fields that the error message may refer to.

d. Press CTRL F enough times to move the cursor to the first character of the field (or next field) found in error.

e. Enter the correct data and it will appear on the screen as if it has been written over the incorrect data. You may want to use CTRL G to delete characters if necessary.

f. Go to d above if additional fields need changing.

g. When all necessary fields are changed

Press CTRL B

Press the RETURN key

The new version of the ticket is then written at the BOTTOM of the file and a flag (illuminated box) is put in place of the first character of the original record (Figure 10).

h. Go to b above if additional tickets need to be corrected.

```
83,3,Y,001,828001,S04Y62870F,83,     ,99990,28500,0621,33431,04,1,02,1,410,20,369,,450,18,145,,,,,,,,,,,,,
83,3,Y,001,828002,S04Y63217L,83,     ,07482,28500,0621,33431,04,1,02,1,410,14,263,,450,9,69,,,,,,,,,,,,,
█3,3,Y,001,828003,S04Y62880C,83,     ,99990,28500,0621,33431,04,1,02,1,410,33,780,,450,5,48,,,,,,,,,,,,,
█3,3,Y,001,828004,S04Y63221F,83,     ,99990,28500,0621,33431,04,1,02,1,410,23,388,,450,7,51,,,,,,,,,,,,,
83,3,Y,001,828005,S04Y63217L,83,     ,07482,28500,0621,33431,04,1,02,1,410,11,217,,450,2,18,,,,,,,,,,,,,
83,3,Y,001,828003,S04Y62880C,83,     ,99990,28500,0621,33431,04,1,02,1,410,40,810,,450,5,48,,,,,,,,,,,,,
83,3,Y,001,828004,S04Y63221F,83,     ,55550,28500,0621,33431,04,1,02,1,410,23,388,,450,7,51,,,,,,,,,,,,,
██,,,828005,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
```

```
83,3,Y,001,828001,S04Y62870F,83,     ,99990,28500,0621,33431,04,1,02,1,410,20,369,,450,18,145,,,,,,,,,,,,,
83,3,Y,001,828002,S04Y63217L,83,     ,07482,28500,0621,33431,04,1,02,1,410,14,263,,450,9,69,,,,,,,,,,,,,
83,3,Y,001,828003,S04Y62880C,83,     ,99990,28500,0621,33431,04,1,02,1,410,40,810,,450,5,48,,,,,,,,,,,,,
83,3,Y,001,828004,S04Y63221F,83,     ,55550,28500,0621,33431,04,1,02,1,410,23,388,,450,7,51,,,,,,,,,,,,,
83,3,Y,001,828005,S04Y63217L,83,     ,07482,28500,0621,33431,04,1,02,1,410,11,217,,450,2,18,,,,,,,,,,,,,
,,,,828005,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
```

Figure 10. Example of a BATCHad.DTA file with deleted records as indicated by a dark box in the first column and their removal after file maintenance has been performed.

i. When all tickets have been corrected press CTRL E to exit current mode.

3. Perform file maintenance

a. This MUST be done if ANY tickets were changed.

b. See Phase II-B10 (page 35) for the necessary procedure.

c. Exit DataStar see Phase II-B11 (page 35) for the procedure.

4. Re-run the EDIT.BAS program - Return to Step A above and computer edit the BATCHad.DTA file.

C. Append Subroutine:

1. Appending batch files to the Master File (FISH-ad.YY) - The following questions or request for action may be displayed, replies are underlined.

a. Type "YES" to go to the APPEND Subroutine Yes

b. Hit 'Return' to Continue, 'End' to quit? Press the RETURN key

c. Place your Master Fish Ticket data diskette in drive B. Press RETURN when ready? Press the RETURN key.

2. If the Master file is not found on drive B the following message will be displayed - If not go to 3.

Can't find B:FISH-ad.YY on drive B.

Is this the first run of the season?

a. *WARNING* If this is not the first batch of the season for area a and district d the wrong diskette may have been placed in drive B. This message is printed when the program can not find file FISH-ad.YY on drive B. If the wrong or no diskette was on drive B do the following.

1. Place the correct diskette in drive B and go to C-3.

2. Answer NO

3. Press the RETURN key and go to 3 below. If you get a BDOS error by putting a disk in drive B without a warm boot do the following:

Press reset button on the back of the Vector

Press B and "Boot" the computer

Run EDIT.BAS again - go to A page 30.

b. Type Y if this is the first run of the season and FISH-ad.YY will be created.

3. If ticket numbers are out of sequence the following message will be displayed - If not go to 4 below.

   The beginning ticket number of BATCHad.DTA is out of sequence with the ending ticket number of the Master file B:FISHad.YY. Type 'YES' to continue.

   a. This may occur if corrections were made to a batch file after it was already appended and now you need to append the corrected version. If you reply YES, the program will write the new fish tickets over the old ones.

      WARNING Must answer to capitol letters "YES"

   b. If you feel this question should not have been asked (i.e., you think your tickets are in sequence) check the troubleshooters guide.

4. Each ticket (record of the BATCHad.DTA file) is then written to the Master fish ticket file (FISH-ad.YY). Where it is written is a function of the order in which it was entered. The data starts with record number two. Note in the following example the first ticket of the season (740001) is written as record two.

Record Number = 2	Ticket Number = 740001
Record Number = 3	Ticket Number = 740002
Record Number = 4	Ticket Number = 740003
. .	. .
. .	. .
Record Number = 1001	Ticket Number = 741000

5. Hit <RETURN> to continue? Press the RETURN key

6. Type SYSTEM to exit MBASIC5.

7. Copy the batch file to the Anchorage diskette - The next five steps (1-5) are displayed on the screen; follow them carefully. They are as follows:

   1) Remove "Master" fish ticket data diskette from drive B.

   2) Place Anchorage "BATCH" storage diskette into drive B.

   3) PIP the batch file you just created (BATCHad.DTA), to the "Anchorage Batch" storage diskette, renaming it as follows:

PIP B:a-d-BBB.YY = A:BATCHad.DTA

Note the program will display the above filename deriving the appropriate management area (a), district number (d), batch number (BBB), and year (YY) from the batch file just edited.

*****WARNING***** If you make an error and enter the wrong batch number (BBB) say 113 instead of 114 and 113 resides on the diskette it will write this version over the old one and you have lost the real batch 113 file!!! Be very careful.

4) Make a second copy of the BATCH file on a second disk as above.

5) After making 2 copies of the BATCH file erase BATCHad.DTA and BATCHad.NDX from your SYSTEM DISKETTE.

Be very sure these are on the Anchorage Batch storage diskettes before erasing. Do so by checking their directories using the following procedure, your replies are underlined.

A>B:

B>D (directory of drive B will appear, check for the file a-d-BBB.YY)

B>A:

A>ERA BATCHad.DTA

A>ERA BATCHad.NDX

8. Indicate in your logbook the completion of this step (see Appendix D Figure 2) use the AYK Batch Data Log.

9. Mail in the Anchorage batch data diskette - If it is full or if it has been two weeks since your last mail in (whichever comes first) - Go to Phase IV step B "BATCH File Diskette Mail in Procedure".

   a. To determine available space on your Anchorage Batch data diskette type the following underlined command.

      A>STAT

   b. Leave 25K free for the unexpected.

10. Decide to continue keying or proceed to Phase V.

   a. Go to Phase II step A if another batch of tickets needs to be entered for this fishing period.

   b. If all tickets have been entered proceed to Phase V and generate reports.

Phase IV. Set-up and Maintenance of the Anchorage Batch Data Diskette

This phase describes the procedure necessary to transfer the season's fish ticket data to the statewide database maintained in Juneau. Please note that it is the statewide system which requires batches of less than 200 tickets and many of the data fields which are not utilized by summary programs on the Vector. This feature of compatibility with the statewide system ensures that the tickets do not have to be sent into Anchorage to be re-keyed as was historically done.

A. Setting up an Anchorage batch data diskette:

1. Place a diskette labeled "SETUP DISK FOR ANCHORAGE BATCH FILES" in Drive A. *Note* This applies only to a Vector with two floppy drives, for a hard disk system see Appendix C for your area.

   a. This disk has the following files on it.

      BACKUP.COM

      SC.COM

      PIP.COM

      D.COM

      STAT.COM

   b. The BACKUP.COM program will produce a copy of this diskette with CP/M on it that you can begin putting batch files onto as in Phase III C-8.

2. Place a blank diskette in Drive B.

3. Run program Backup - Responses are underlined.

   a. A>BACKUP

      Source Drive: A Destination Drive: B

      PRESS RETURN TO BEGIN: Press the RETURN key

   b. This will take 2 or 3 minutes and you will know it is completed when the following is displayed.

      PRESS RETURN TO BEGIN: COPY COMPLETE

      (R) RETURN TO SYSTEM (B) EXECUTE BACKUP AGAIN

      MAKE SELECTION FROM ABOVE R

   c. Remove diskette from drive B and go to 2 and prepare a second diskette which will be your BATCH Data Backup Diskette.

4. Naming convention for diskettes

   a. The labeling convention for your Anchorage Batch data diskettes will be:

      a-##-YY example: W-01-84

      Where:

      a represents your appropriate management area code (W,X,Y,Z)

      ## diskette number in ascending order (1,2,3,...)

      YY stands for year.

   b. Labeling convention for your Batch data backup diskette:

      a-##B-YY example: W-01B-84

      Here B means it is the backup copy of diskette a-##-YY and should contain identical files.

5. Prepare a log sheet for the Anchorage batch data file diskette (see Appendix C, Figure 2).

B. Mail-in procedure for Anchorage batch data diskettes:

1. Mail in the Anchorage batch data diskette if full or if it has been two weeks since your last mail-in (whichever comes first). Send it and a copy of its AYK Batch Data log (Appendix D, Figure 2) certified mail with receipt requested to the Regional Computer Staff:

   Ruth Harrington
   Alaska Department of Fish and Game
   Division of Commercial Fisheries
   333 Raspberry Road
   Anchorage, AK 99502

2. Indicate on the AYK Batch Data Log when the receipt card (from mailing it certified receipt requested) is returned.

3. Data transferred - Personnel in Anchorage will collect the data, log it in and send it to Juneau to be transferred.

4. Error check program run - Juneau staff will run its error check program on your batch files.

5. An error report will be sent back to the area office - For all files on the recently mailed Anchorage batch data diskette.

6. Retrieve those tickets found with errors.

a. Indicate any changes needed to make the keyed data report.

b. If the keyed item matches that on the ticket (and the information on the ticket is correct) indicate so on the error report.

c. Use a red pen for all comments on the error report.

d. Ask your supervisor or call Ruth Harrington in Anchorage if you are unable to determine corrective action for a given fish ticket.

7. Retrieve the Anchorage batch data backup diskette on which the files reside with the fish ticket errors.

8. Make corrections using Scope (SC.COM) on those files containing fish tickets with errors. See the Troubleshooters guide for information on how to correct data in batch files of the format of BATCHad.DTA which is also that for batch data files a-d-BBB.YY.

9. Make corrections to the same tickets (as in 8 above) in the Master fish ticket file (FISH-ad.YY) - Use program UTILITY.BAS. See Phase V-D, page 59.

10. Indicate on the AYK Batch Data Log that corrections were made for those files which held fish tickets with errors.

11. Mail the error report with indicated corrections to Anchorage - Use address in 1 above.

12. Determine whether to proceed to Phase II or Phase V.

a. Go to Phase II if more tickets need to be entered.

b. Go to Phase V if all tickets have been entered.

Phase V. Report Generation

Catch and effort reports can be generated after all tickets from a fishing period have been entered and an error-free version appended to the Master fish ticket file (FISH-ad.YY) for that district. Two steps are involved in generating the reports. The first involves calculating catch and effort statistics by stat area and processor from your Master fish ticket file and writing them to a CATCH-ad.YY and PROC-ad.YY file. This is accomplished by running the program CATCHa.COM, for each fishing period for which tickets have recently been entered, or fishing periods recently held. This procedure is fully documented in this phase.

All report programs access the CATCH-ad.YY or PROC-ad.YY files which is much faster than reading through the Master fish ticket file. Report options are chosen from a menu that is displayed by running the program REPMENU.BAS. Phase V describes the procedure to generate the seven report options. Only the standard procedure is given. It is left to the user to experiment with subtotal options and different species combinations which will best fit their area's needs.

There exist additional programs and program options that are described in Section D. Special interest programs include CATCH3.COM which totals the number of unique permits across districts for any part of the season. In contrast the UTILITY.BAS program allows you to search for a CFEC permit number, or display a range of tickets in the Master fish ticket file. It is also used to modify fish tickets if found later to be in error.

A. Update CATCH-ad.YY and PROC-ad.YY files before generating period catch or processor reports. Use the following procedure:

1. Run program CATCHa.COM

   a. Run for each fishing period for which additional tickets have been entered (i.e., since the last running of CATCHa.COM).

   b. Run CATCHa.COM if a fishing period resulted in no tickets so zeros can be written to the CATCH-ad.YY and PROC-ad.YY files.

2. Procedure to run program CATCHa.COM

   a. Type the following underlined replies pertaining to your area (a) and district (d). Be sure printer has paper and is turned on.

      WARNING The appropriate diskette containing the Master fish ticket data (file FISH-ad.yy) must be in drive B.

      A>CATCHa (CATCHa.COM has been customized for each area office)

      Enter "YOUR" area district No: d (d = 1,2,...,or 6)

      Enter today's date:? MM/DD/YY

Do you want to calculate catch statistics for:

1.) A single commercial fishing period, or,

2.) A specified range of dates.

Enter response "1" or "2" : 1 (if you answer 2 see D-1 below)

Enter period number: ## (enter appropriate period number 1,2,..,10,..)

b. The program then calculates the range of dates and total hours fished for that period.

c. The following question is then asked

For fishing periods with NO tickets, type 'Y' to skip reading the Master file N (if no tickets were entered for this period answer 'Y')

d. The program searches through the Fish-ad.YY file for tickets within that period, summarizes the data and writes it to the PROC-ad.YY and CATCH-ad.YY files.

e. When complete the following will be asked:

Do you need to access another data file:? NO (If your Master file spans two diskettes answer YES and the following will be displayed).

If you need to change data diskettes do so now:

Hit return when ready - Place second diskette in drive B and press return.

f. Number of permits are calculated and statistics are written to the files.

g. A summary report is printed on the printer as the program finishes.

h. For a specified range of dates, see Phase V-D for special options.

3. Place a copy of the CATCHa.COM summary report (Figure 11) in the logbook for that district - This may be very important for trouble-shooting later.

B. Report generation after each fishing period:

1. Display menu of report options - Type the following to display the report options (see Figure 12).

```
CATCH program run on Kotzebue Area Fish Ticket Master File
      Date of run.....: 5/11/84
      District.....: X-1
      Period Number....:  1
      Fishing Dates....: 07/11 - 07/11
      Relevant tickets.:  2

      Species ( 410 ) Total Catch ...:  0
      Species ( 440 ) Total Catch ...:  0
      Species ( 450 ) Total Catch ...:  76
      Species ( 520 ) Total Catch ...:  0
      Species ( 570 ) Total Catch ...:  0
      Species ( 0 ) Total Catch ...:  0
```

Figure 11. Report generated by CATCHa.COM.

```
                        REPMENU.BAS
                AYK Fish Ticket Processing System
 This is a menu program that accesses 7 different reporting programs.
================================================================

    (1.) Period Summary Report with catch and C.P.U.E. broken down
         by stat area for one fishing period.

    (2.) Season Summary Report with catch and C.P.U.E. and
         cumulative catch and C.P.U.E. by period for THREE species.
         (Can send output to a file)

    (3.) Season Summary Report. Similar to No.2, gives catch and
         C.P.U.E. (but not cumulatives) by period for up to 6
         species. (Can send output to text file).

    (4.) Season Summary Report. Similar to No.3, gives catch and
         WEIGHT by period for up to 6 species.

    (5.) Period Processor Report. Gives the production breakdown
         by processor for one fishing period.

    (6.) Season Processor Report. Gives the total production by
         processor for the season.

    (7.) Production for one processor by period for the season.

    (8.) Return to system.
--------------------> ENTER REPORT OPTION ---------------->:
```

Figure 12. Menu of report options available with the AYK fish ticket system.

A> MBASIC5 REPMENU

a. Check with your supervisor as to what reports are needed after each fishing period.

b. Refer to Section C for examples of generating each report option.

C. Seven report options are available from REPMENU:

1. Report option 1 - Use the following procedure. Your responses are underlined.

ENTER REPORT OPTION HERE: 1

Note There are three report variations of option 1 (Figure 13) select the variation requested by your supervisor.

Enter report option here: # (2 for Norton S./Kotzebue, 3 for upper Yukon)

Enter "YOUR" Area district No. ? d Press RETURN

Do you want to use a SPECIAL input file? NO (See D for special options)

Enter Period number:? ##

Enter todays date: MM/DD/YY

How many copies of the report do you want? # (1 if you have a copier machine)

If the LINE PRINTER is ready hit <RETURN> Press RETURN key

See Appendix C pertaining to your area for an example of this report. Versions have been prepared to meet specific needs of different areas.

2. Report option 2 - Use the following procedure. Your responses are underlined.

ENTER REPORT OPTION HERE: 2

Enter "YOUR" Area district No.? d

Enter todays date: MM/DD/YY

Enter title of report below:

o o

Enter the title of your choice

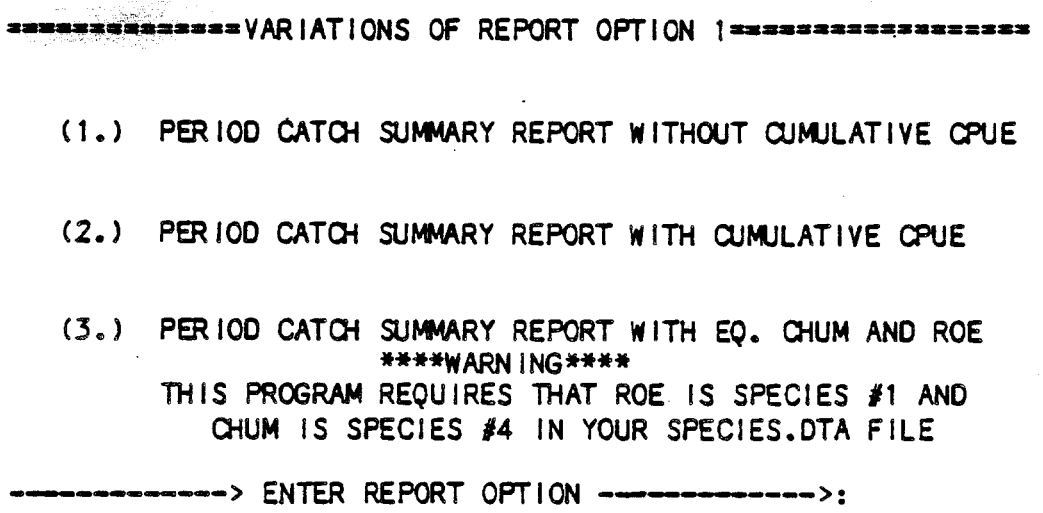

Figure 13. Menu of report variations for report option one of REPMENU.

Select THREE species to appear in output. (The species in your SPECIES.DTA are displayed).

CHINOOK (Y)es or (N)o :? (check with your supervisor

SOCKEYE (Y)es or (N)o :? as to needed choices)

COHO (Y)es or (N)o :?

PINK (Y)es or (N)o :?

CHUM (Y)es or (N)o :?

Do you want the output broken into subtotals? N (Can be Y or N)

If the LINE PRINTER is ready hit <RETURN>.? Press RETURN key

Do you want to sent this report to a text file? N (If you want a copy of this report on your diskette answer Y)

3. Report option 3 - Use the same procedure as in option 2. The difference being that six species can be chosen and cumulatives are not displayed.

4. Report option 4 - Use the same procedure as in option 3. The difference lies in that weights are displayed for six species. You can not send this to a text file.

5. Report option 5 - Use the following procedure. Your replies are underlined.

ENTER REPORT OPTION HERE: 5

Enter "YOUR" Area district No. ? d

Enter period number :? #

Do you want Processors listed by (N)ame or (C)ode?

Enter 'N' or 'C': ? N (May want listed by code then answer C)

1 CHINOOK (Species are listed as they

2 SOCKEYE appear in SPECIES.DTA)

3 COHO

4 PINK

5 CHUM

6 CHAR

Type in the numbers for the species that you want displayed in the report table. Hit <RETURN> when finished.

======>_# # #_ (ask supervisor for list)

Enter todays date :? _MM/DD/YY_

How many copies of the report do you want ? _1_

If the LINE PRINTER is ready hit <RETURN>. ? _Press RETURN key_

6. _Report option 6_ - Use the following procedure. Your replies are underlined.

ENTER REPORT OPTION HERE: _6_

Enter "YOUR" Area district No. ? _d_

Do you want Processors listed by (N)ame or (C)ode?

Enter 'N' or 'C': ? _N_

1 CHINOOK (Species are listed as they appear in

2 SOCKEYE SPECIES.DTA)

3 COHO

4 PINK

5 CHUM

6 CHAR

Type in the numbers for the species that you want displayed in the report table. Hit <RETURN> when finished.

======> _# # #_ <======

Enter todays date :? _MM/DD/YY_

Enter total number of fishing periods _#_ (Look in logbook)

If the LINE PRINTER is ready hit <RETURN>.? _Press RETURN key_

7. _Report option 7_ - Use the following procedure. Your responses are underlined.

Enter "YOUR" Area district No. ? _d_

1 Y K FISHERIES (The processor names are listed as

2 CHET CLARK they appear in PROC.DTA)

3 KEMPS

4 CROW

Enter Processor Selection:? # (Enter one choice you want the report to summarize)

1 CHINOOK (Species are listed as they

2 SOCKEYE appear in SPECIES.DTA)

3 COHO

4 PINK

5 CHUM

6 CHAR

Type in the number for the species that you want displayed in the report table. Hit Return when finished.

====> # # # <=======

Enter today's date:? MM/DD/YY

If the LINE PRINTER is ready hit <RETURN>? Press the RETURN key

8. Option 8 - Returns to CP/M operating system.

D. Special options in report generation and program usage:

1. Report option 1 - Range of dates option (2)

a. Run program CATCHa.COM using option 2 - Replies are underlined.

A>CATCHa

Enter "YOUR" Area district No.: d

Enter today's date:? MM/DD/YY

Do you want to calculate catch statistics for:

1.) A single commercial fishing period, or,

2.) A specified range of dates.

Enter response "1" or "2": 2

Enter beginning date as 'M/DD': # / ##

Enter beginning date as 'M/DD': # / ##

Enter SPECIAL output filename:? any filename you chose

b. The program summarizes catch and effort data for the range of dates you chose and wrote it to the SPECIAL file you named above.

c. Next the following is asked

Do you need to access another data file:? answer Y if Master file spans two diskettes if not No

d. Will print out the number of tickets that were in your range of dates.

e. Run Repmenu OPTION 1

A> MBASIC5 REPMENU

Enter report OPTION 1

Enter "your" Area district No. ? d

Do you want to use a Special input file: YES

Enter the SPECIAL input file name?

(use filename given in D-1b above)

Enter a Title for the Report Below.

"Enter title of your choice"

Enter today's date:? DD/MM/YY

How many copies of the report do you want? 1

Enter REPORT OPTION - 8 (to return to CP/M)

2. CATCH3.COM program

a. Procedure - Replies are underlined to calculate total number of permits for the season.

Enter "YOUR" Area district No.:? d

Enter beginning date as 'M/DD': # / ## (first fishing date)

Enter ending date as 'M/DD': # /## (last fishing date)

Do you want to use another file? NO (may experiment with more districts)

b. Report is printed out (see Appendix B)

3. UTILITY program

a. To run UTILITY.BAS type the following underlined command.

A>MBASIC5 UTILITY

b. A menu of 7 options are displayed on the terminal (Figure 14).

1. Procedure for Option 1

Select function by entering single digit number here: 1

Choose to send output to printer or terminal

Output to Printer <P> or Video display <V>? P

Enter single digit district number? #

Enter CFEC Permit No.? SO4a#####1 (enter first 10 characters of permit) all deliveries made by this CFEC permit holder are then printed.

Hit <Return> to go back to the menu

2. Procedure for Option 2

Select function by entering single digit number here: 2

Choose to send output to printer or terminal

Output to Printer <P> or Video display <V>? P

Enter single digit district number? #

Enter ADF&G Vessel Number:? ##### (Enter full 5 digits)

Hit <Return> to Continue? Press the Return key

3. Procedure for Option 3

Select function by entering single digit number here: 3

Choose to send output to printer or terminal

Output to Printer <P> or Video display <V>? P

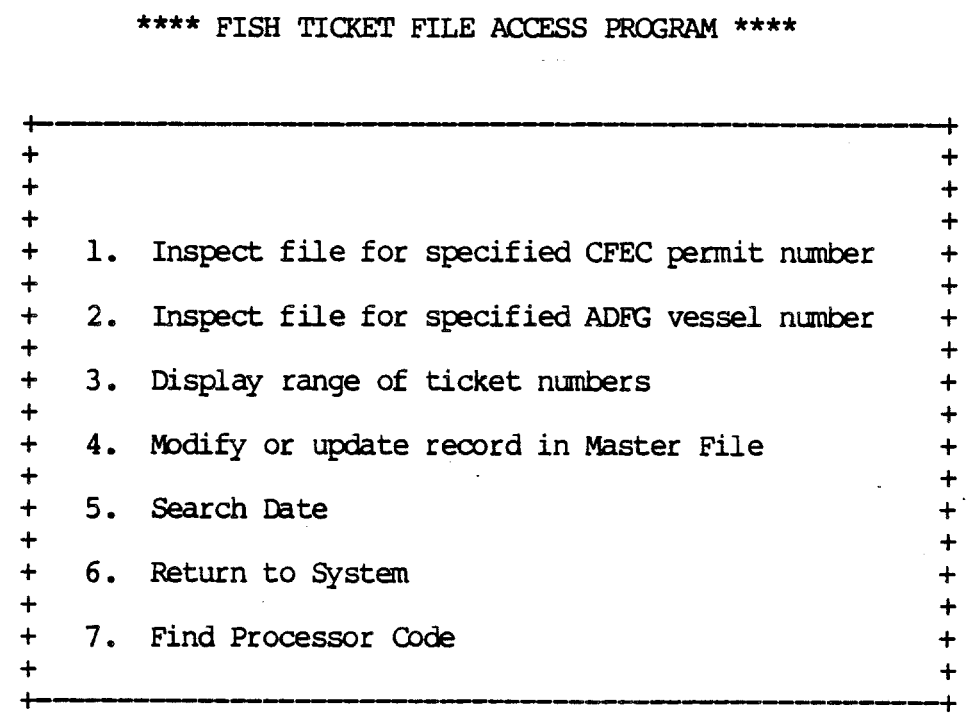

Figure 14. Menu of activities available in the UTILITY.BAS program. The Master fish ticket file (FISH-ad.yy) for the chosen district is accessed.

Enter single digit district number? #

ENTER RANGE OF TICKET YOU WOULD LIKE TO INSPECT

BEGINNING TICKET NUMBER? ###### (6 DIGIT NUMBER)

ENDING TICKET NUMBER? ######

The range of tickets will be printed

Hit <Return> to Continue? Press the Return key

4. Procedure for Option 4

Select function by entering single digit number here: 4

Choose to send output to printer or terminal

Output to Printer <P> or Video display <V>? P

Enter single digit district number? #

Enter ticket number of the record you wish to modify:? ######

The data for that ticket are then printed as it resides on the Master fish ticket file. A menu of items that can be changed are then displayed (Figure 15).

Select field to be modified by entering single digit: #

After a field choice is made the program asks (or displays) what is presently there and asks what you want to change it to. Verify that the change is correct and answer: Y or N.

5. Procedure for Option 5

Select function by entering single digit number here: 5

Choose to send output to printer or terminal

Output to Printer <P> or Video display <V>? P

Enter single digit district number? #

ENTER DATE TO SEARCH FOR:? MMDD (Be sure to enter full 4 digits e.g., 0721)

Hit <Return> to continue? Press the Return key

6. Procedure for Option 6

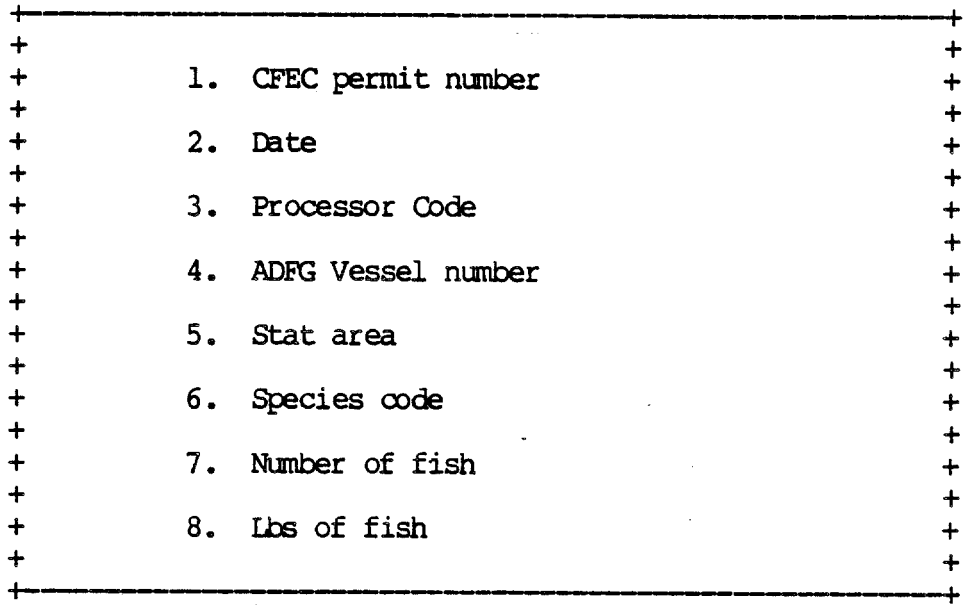

Figure 15. Menu of fields which can be modified in a fish ticket record on the area's Master fish ticket file (FISH-ad.YY).

Select function by entering single digit number: 6

Returns you to CP/M

A>

7. Procedure for Option 7

Select function by entering single digit number here: 7

Choose to send output to printer or terminal

Output to Printer <P> or Video display <V>? P

Enter single digit district number? #

Enter Processor code number? #####

Tickets are then printed with that processsor code

Hit <Return> to continue: Press the Return key

CHAPTER VI. TROUBLE-SHOOTER'S GUIDE

Introduction

The Trouble-shooter's guide, at this time, includes only those problems specifically referenced earlier in the manual. Many other problems may arise and it is recommended that the user always read the manual first. Try and determine if the problem arose after following the correct procedure. In either case, go back and repeat the process again. If the problem re-occurs call your contact person as recommended by your supervisor (biometrician, programmer, or an experienced data entry staff member).

Mid-season Change to SPECIES.DTA

If it becomes absolutely necessary to add a new species to the SPECIES.DTA file several additional steps must be taken. After adding all fields for the new species file perform file maintenance (see Phase II D-2 page 39 for an example). Next erase the CATCH-ad.YY and PROC-ad.YY files for each district. These files must be created again using the new version of your SPECIES.DTA file. This entails running program CATCHa.COM for each district and every fishing period held. The work this would entail illustrates the seriousness of placing all necessary species into the file at the beginning of the season.

Mid-season Change to PROC.DTA

If it becomes absolutely necessary to change the number of processors which you enter in the first field of PROC.DTA (Figure 9, page 40) several additional steps must be taken.

1. Erase PROC.DTA and PROC.NDX (using the "ERA" command).

2. Create PROC.DTA and PROC.NDX (see Phase II-D, page 36) using the new number of processors, leaving still more room.

3. Erase the PROC-ad.YY and CATCH-ad.YY file for each district.

4. Create new PROC.ad-YY and CATCH-ad.YY files - To create these files for each district run CATCHa.COM for every fishing period held to date.

It is apparent from the work involved in changing the number of processors that it is wise to leave room for late arriving processors during the initial creation. An example would be if at the beginning of the season ten processors are present, do not enter 10 as the total number of processors but rather look at Appendix C and determine how many were present the previous year and maybe even increase that number. Twenty is the maximum allowable. Call the biometrician if you require more. If you merely want to add processors which will not exceed the number entered in the first field remember two important facts.

1. Do not change the order of the previous processors. File maintenance orders the processor by processor code and do not perform it if the order will change.

2. If spelling changes need to be made to processors make them with Scope.

Ticket Number Displayed in the Verify Mode Does Not Match that Stamped on the Ticket

The following steps should be taken when the user discovers that the ticket number displayed in the verify mode does not match that stamped on the ticket.

1. Note the number being displayed in the Verify mode and press the RETURN key to get out of the verify mode.

2. Above the entry screen a question asks if you want to write or delete this record - Delete this record by pressing the DEL key.

3. Determine if any tickets are in error. Several reasons for this mistake exist.

   (a) A ticket was not stamped with a number and the computer displays a ticket number one more than that stamped.

   (b) A ticket was not entered and the computer displays a number one less than that stamped on the ticket.

   (c) A ticket was entered twice and the computer displays a ticket number one greater than that stamped on the ticket.

4. Scan through the data file using the "Scan by key mode" (K) or "Scan by record" (D) - To do so exit the ADD mode as

   Press CTRL E

   Type D - Scan data file in order

   Press CTRL N and check through the file until you find

   the place where the ticket number differs

   between the compurer file and that stamped.

5. Recommendations

   (a) If a ticket was skipped - Change stamped ticket numbers to match computer data file and place skipped ticket as next to enter. If skipped ticket was never stamped with a number check to see if this will make the batch greater than 200 and if so place that ticket in the next unfilled batch with a stamped number.

(b) If a ticket was duplicated, bring up the second copy of that ticket in the scan by key mode (K) and enter the next ticket's data. Change the stamped number to match that displayed in DataStar. Change any other stamped numbers to match the data file.

Ticket Number Out of Sequence Error in the Append Subroutine

An error message is displayed when the Append Subroutine of EDIT.BAS finds that the ticket number of the last ticket in the Master fish ticket file (FISH-ad.YY) is not one less than the first ticket of the BATCHad.DTA file being appended. If you think this should not be the case go ahead and append this batch and then determine what the last fish ticket was in your Master fish ticket file when the error message was displayed. To do this enter the UTILITY program (see Phase V D-3, page) and select option 3 which displays the number of the first and last ticket in your Master fish ticket file (FISH-ad.YY). Ask to display the last few tickets of the previous batch (the one just before this last one which resulted in the error message). If the tickets are not found it should become apparent that the previous batch (or more) was never appended.

There may be several reasons why it appears your tickets are out of order or a batch was not appended. The mistake may be that the backup copy of the Master fish ticket file was placed in drive B and it had not been recently backed up. If so place the up to date Master file in drive B and append the current batch and see if the error message is displayed. Secondly, your last batch may have been incorrectly stamped and is in fact not sequential. Determine which numbers were skipped and make a special batch to include only those numbers (may be as few as 1) and follow Phase II-IV through data entry editing, appending, and copying to the Anchorage disk.

From your log book check for tickets from the last few batches to see just how many are missing. Next append the missing batches to the Master fish ticket file using the following procedure:

1. Erase existing BATCHad.DTA and "NDX" files off your system diskette (BE SURE the batch file has been copied over to your Anchorage batch data diskette).

   A>ERA BATCHad.DTA

   A>ERA BATCHad.NDX

2. Determine if missing batches are present on the Anchorage batch data diskette. Place the Anchorage diskette in B drive and display it's directory.

   A>B:

   B>D

   If the batch is not present it will have to be entered again. Return

to Phase II.

If it was saved as a batch file but never appended copy it to your system diskette as

A>PIP A:BATCHad.DTA=a-d-BBB.YY

and run program EDIT.BAS.

Using the Text Editor SCOPE (SC.COM) to Make Corrections to Your Batch File

Be warned that any changes made to a BATCHad.DTA file using SCOPE may make it no longer readable by DATASTAR.COM. If you change the ticket number or the order of any tickets do not take the file into DataStar again. Also note that your batch file is a variable length record where fields are separated by commas (see Figure 10). Removal of any commas will result in the inability to edit or append the batch by EDIT.BAS. Each record (line of data) must be 35 commas.

Notes on Using SCOPE (SC.COM)

Review the SCOPE manual in the Vector operational manual.

1. To access your batch file type the following underlined command.

   A>SC BATCHad.DTA A

2. If you enter SCOPE without typing A at the end of the above command the text of BATCHad.DTA will not appear on the screen. Type A now and enter the APPEND mode (see mode displayed in the upper right hand corner of the screen) and answer first question with an A (want to append all lines).

3. Use the DEL key to change modes - Type DEL, return to the command mode, type the letter of the mode wanted next.

4. Change mode - Type C to enter the change mode. Use cursor (arrows) to move to the line and field you want to change. This mode allows for a character for character change as 730 (lbs) to 750 not 730 to 73.

5. Insert mode - Type I to enter the insert mode. Use the insert mode to add characters or remove characters (example: from 730 to 73 or 60 to 640).

6. After the correction has been made to a record made sure NO commas were removed. Count 35 commas!!!

7. To exit SCOPE use the "Q" command -

   Press the DEL key to enter the command mode

Type Q

Type Y (to save this version) or D (to exit without saying the changes made).

Compiling a BASIC Program

In the event that problems develop with the compiled programs in the AYK fish ticket system (CATCH.COM, CATCHa.COM or CATCH3.COM) several steps must be taken. First the non-compiled or interpreted version (CATCH.BAS, CATCHa.BAS OR CATCH3.BAS) will be corrected upon instructions from the regional biometrician or programmer using SCOPE. Next, new compiled versions must be created. Use the following procedure to compile a BASIC program (with a BAS extension) user replies are underlined.

1. A diskette with the following files have been provided. Place it in drive B and check the directory for the following files:

   BASLIB.REL BASCOM.COM L80.COM

   PIP.COM D.COM

2. Copy the program you want compiled (which resides on a diskette in drive A) to the diskette in drive B. Use the following commands:

   B>PIP B:=A:CATCH.BAS (Could be CATCHa.BAS or CATCH3.BAS)

3. Commands to compile the program of step 2, user replies are underlined.

   B>BASCOM CATCH,CATCH=CATCH/E (This may take a while, wait for "B>"

   before continuing, check for fatal errors = 0000)

4. Check directory (Type D) for CATCH.COM

5. Copy new compiled version to diskette in drive A.

   B>PIP A:=B:CATCH.COM

6. Erase the following files from drive B. First check directory that you are on drive B and the files exist.

   CATCH.PRN CATCH.REL CATCH.COM CATCH.BAS

   Use the ERA command ERA CATCH.PRN

7. Remove diskette from drive B and continue processing fish tickets.

   (Note previous commands could be for CATCHa or CATCH3)

ACKNOWLEDGMENTS

The AYK fish ticket system has evolved substantially since Scott Marshall first suggested that microcomputers replace the hand calculator on the lower Yukon in 1980. Numerous people have been involved in the development, maintenance, and testing of the computer programs in the current system. Special thanks are extended to Mark Stefanich, Janice McClean, Jay Disque, and Larry Talley for their development of earlier versions of the programs and the modification work to produce the current versions. The present version of many of the programs were developed by James Brady while with the lower Yukon management staff, where some form of fish ticket computer processing has occurred since 1981. Region-wide implementation occurred in 1983 and I would like to thank the data entry staff and office managers for their review and use of an earlier version of this manual.

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APPENDIX A. ATTRIBUTES FOR DATA ENTRY FIELDS OF DATASTAR PARAMETER FILES

BATCHY1 FORM LISTING AND FIELD ATTRIBUTE DEFINITIONS

FIELD NUMBERS

```
    ********     AYK Fish Ticket Data Entry Screen      *********
    ___________________________________________________________
Year: _1   Region: 2  Management Area: 3  Batch Number: _4
|==================================|
|   Ticket Number:        _____5   |
| CFEC Permit Number: __________6  |       Permit Year : _7
|                                  |       Last Name : _____8
|   ADFG Number:         _____9    |       Processor Code: ___10
|   Date as "MMDD":      __11      |
|   Statistical Area:  ___12       |
|==================================|     Gear Code: 13  Fishery Code: *
| Species   Number                 |     Period Code: 15 AYK Season: *
| Code        of Fish       Pounds |
|==================================|
| _17    Nos: ____18  Pounds: _____19 |              value  _____20
| _21    Nos: ____22  Pounds: _____23 |              value  _____24
| _25    Nos: ____26  Pounds: _____27 |              value  _____28
| _29    Nos: ____30  Pounds: _____31 |              value  _____32
| _33    Nos: ____34  Pounds: _____35 |              value  _____36
===================================|
```

-Continued-

Appendix Figure A-1. Data entry screen listing and attribute definitions for BATCHad.DTA file using A = Y and d = 1 in example.

BATCHY1 FORM LISTING AND FIELD ATTRIBUTE DEFINITIONS

RANGE CHECK, LOW

```
    ********      AYK Fish Ticket Data Entry Screen     *********
    ------------------------------------------------------------
Year: __   Region: _  Management Area: _  Batch Number: ___
|===================================|
|   Ticket Number:      ______      |
| CFEC Permit Number:   ___________ |     Permit Year : __
|                                   |     Last Name : ______
|   ADFG Number:        _____       |     Processor Code: _____
|   Date as "MMDD":     0101        |
|   Statistical Area:   _____       |
|===================================|    Gear Code: __  Fishery Code: _
| Species   Number                  |    Period Code: __ AYK Season: _
| Code      of Fish        Pounds   |
|===================================|
| ___    Nos: ______  Pounds: _______ |             value  _______
| ___    Nos: ______  Pounds: _______ |             value  _______
| ___    Nos: ______  Pounds: _______ |             value  _______
| ___    Nos: ______  Pounds: _______ |             value  _______
| ___    Nos: ______  Pounds: _______ |             value  _______
=====================================|
```

RANGE CHECK, HIGH

```
    ********      AYK Fish Ticket Data Entry Screen     *********
    ------------------------------------------------------------
Year: __   Region: _  Management Area: _  Batch Number: ___
|===================================|
|   Ticket Number:      ______      |
| CFEC Permit Number:   ___________ |     Permit Year : __
|                                   |     Last Name : ______
|   ADFG Number:        _____       |     Processor Code: _____
|   Date as "MMDD":     1231        |
|   Statistical Area:   _____       |
|===================================|    Gear Code: __  Fishery Code: _
| Species   Number                  |    Period Code: __ AYK Season: _
| Code      of Fish        Pounds   |
|===================================|
| ___    Nos: ______  Pounds: _______ |             value  _______
| ___    Nos: ______  Pounds: _______ |             value  _______
| ___    Nos: ______  Pounds: _______ |             value  _______
| ___    Nos: ______  Pounds: _______ |             value  _______
| ___    Nos: ______  Pounds: _______ |             value  _______
=====================================|
```

-Continued-

Appendix Figure A-1. Data entry screen listing and attribute definitions for the BATCHad.DTA file using a = Y and d = 1 in example (continued).

ENTRY CONTROL MASK

```
********      AYK Fish Ticket Data Entry Screen      *********

Year: ""   Region: "   Management Area: "   Batch Number: XXX
|=====================================|
|   Ticket Number:        ______      |
| CFEC Permit Number: XXXXIIIIII      |      Permit Year : ""
|                                     |      Last Name : """""""
|   ADFG Number:        """""         |      Processor Code: XXXXX
|   Date as "MMDD":     IIII          |
|   Statistical Area:   """"I         |
|=====================================|      Gear Code: II  Fishery Code: "
| Species   Number                    |      Period Code: __ AYK Season: _
| Code      of Fish        Pounds     |
|=====================================|
| III   Nos: ______  Pounds: _______  |              value """""""
| ___   Nos: ______  Pounds: _______  |              value """""""
| ___   Nos: ______  Pounds: _______  |              value """""""
| ___   Nos: ______  Pounds: _______  |              value """""""
| ___   Nos: ______  Pounds: _______  |              value """""""
=======================================|
```

CONTENT CONTROL MASK

```
********      AYK Fish Ticket Data Entry Screen      *********

Year: 84   Region: 3   Management Area: Y   Batch Number: 999
|=====================================|
|   Ticket Number:      999999        |
| CFEC Permit Number: A99A99999AB     |      Permit Year : 84
|                                     |      Last Name : ______
|   ADFG Number:        99990         |      Processor Code: E9999
|   Date as "MMDD":     9999          |
|   Statistical Area:   33419         |
|=====================================|      Gear Code: 99  Fishery Code: 1
| Species   Number                    |      Period Code: __ AYK Season: _
| Code      of Fish        Pounds     |
|=====================================|
| 999   Nos: ______  Pounds: _______  |              value 0000000
| 999   Nos: ______  Pounds: _______  |              value 0000000
| 999   Nos: ______  Pounds: _______  |              value 0000000
| 999   Nos: ______  Pounds: _______  |              value 0000000
| 999   Nos: ______  Pounds: _______  |              value 0000000
=======================================|
```

-Continued-

Appendix Figure A-1. Data entry screen listing and attribute definitions for the BATCHad.DTA file using a = Y and d = 1 in example (continued).

FIELD ATTRIBUTE DEFINITIONS

```
                    Q=required
                    C=check dgt
                    J=right just        * * D E R I V E D *
                    W=write ed c        .     LIST    CALC *****VERIFICATION*****
                    O=oper entry        .                  .
FIELD NUM/NAME      R=range chk  PAD/ . INDEX ITEM         .          FILE VERIFY
   LEN LIN COL KEY  E=edit mask FLOAT . FIELD  NUM ORDER  .   ORDER   FILE NAME
                    .          .     .                     .
001/YEAR
   002 002 007      .    W  E  .     .                     .
002/REGION
   001 002 020      .    W  E  .     .                     .
003/MANAGEMENT AREA
   001 002 040      .    W  E  .     .                     .
004/BATCH NUMBER
   003 002 057      . Q       E  .     .                     .
005/TICKET NUMBER
   006 004 022 001  .      O  E  .     .           001 N .  S  002
006/CFEC NUMBER
   011 005 022      . Q       E  .     .                     .
007/PERMIT YEAR
   002 005 057      .    W  E  .     .                     .
008/LAST NAME
   006 006 055      .    W  E  .     .                     .
009/ADFG NUMBER
   005 007 022      .    W  E  .     .                     .
010/PROCESSOR CODE
   005 007 059      . Q       E  .     .                     .
011/MONTH DAY
   004 008 022      .       RE  .     .                     .  F  003   A:DATEY1
012/STATISTICAL AREA
   005 009 022      .    W  E  .     .                     .
013/GEAR CODE
   002 010 053      .    W  E  .     .           009 S .
014/FISHERY CODE
   001 010 071      .    W  E  .     .                     .
015/PERIOD CODE
   002 011 055      .         .     . 011   002           .
016/AYK SEASON CODE
   001 011 070      .         .     . 011   001           .
017/SPECIES 1 CODE
   003 014 002      . Q       E  .     .                     .  F  008   A:SPECIES
018/NUMBER OF FISH 1
   006 014 013      .         .     .                     .
019/POUNDS OF FISH 1
   007 014 029      .         .     .                     .
020/VALUE OF FISH 1
   007 014 062      .       E  .     .                     .
021/SPECIES 2 CODE
   003 015 002      .       E  .     .                     .  F  007   A:SPECIES
022/NO FISH 2
   006 015 013      .         .     .                     .
023/POUNDS 2
   007 015 029      .         .     .                     .
024/VALUE 2
   007 015 062      .       E  .     .                     .
```

-Continued-

Appendix Figure A-1. Data entry screen listing and attribute definitions for the BATCHad.DTA file using a = Y and d = 1 in example (continued).

FIELD ATTRIBUTE DEFINITIONS

```
                    Q=required
                    C=check dgt
                    J=right just       * * D E R I V E D *
                    W=write ed c       .     LIST    CALC *****VERIFICATION****
                    O=oper entry       .                  .
FIELD NUM/NAME      R=range chk  PAD/   . INDEX ITEM       .         FILE VERIFY
    LEN LIN COL KEY E=edit mask FLOAT  . FIELD  NUM ORDER  .   ORDER   FILE NAME
                    .          .       .                   .
025/SPECIES 3 CODE
    003 016 002     .       E  .       .                   . F  004    A:SPECIES
026/NO FISH 3
    006 016 013     .          .       .                   .
027/POUNDS 3
    007 016 029     .          .       .                   .
028/VALUE 3
    007 016 062     .       E  .       .                   .
029/SPECIES 4 CODE
    003 017 002     .       E  .       .                   . F  005    A:SPECIES
030/NO FISH 4
    006 017 013     .          .       .                   .
031/POUNDS 4
    007 017 029     .          .       .                   .
032/VALUE 4
    007 017 062     .       E  .       .                   .
033/SPECIES 5 CODE
    003 018 002     .       E  .       .                   . F  006    A:SPECIES
034/NO FISH 5
    006 018 013     .          .       .                   .
035/POUNDS 5
    007 018 029     .          .       .                   .
036/VALUE 5
    007 018 062     .       E  .       .                   .
```

BATCHY1 FORM LISTING AND FIELD ATTRIBUTE DEFINITIONS

CALCULATIONS

```
#005=TICKET NUMBER+1
#013=CFEC NUMBER(2,3)
```

Appendix Figure A-1. Data entry screen listing and attribute definitions for the BATCHad.DTA file using a = Y and d = 1 in example (continued).

DATEY1 FORM LISTING AND FIELD ATTRIBUTE DEFINITIONS

FIELD NUMBERS

=== Y-1 DATES ===
season code 1
period no. 2
month/day 3
hours 4

DATEY1 FORM LISTING AND FIELD ATTRIBUTE DEFINITIONS

ENTRY CONTROL MASK

=== Y-1 DATES ===
season code 1
period no. —
month/day 111
hours —

-Continued-

Appendix Figure A-2. Data entry screen listing and attribute definitions for the DATEad.DTA file using a = Y and d = 1 in example.

CONTENT CONTROL MASK

```
=== Y-1 DATES ===
season code  9
period no.   __
month/day    999
hours        __
```

DATEY1 FORM LISTING AND FIELD ATTRIBUTE DEFINITIONS

FIELD ATTRIBUTE DEFINITIONS

```
                    Q=required
                    C=check dgt
                    J=right just      * * D E R I V E D *
                    W=write ed c      .     LIST    CALC *****VERIFICATION****
                    O=oper entry      .                  .
FIELD NUM/NAME      R=range chk  PAD/ . INDEX ITEM       .          FILE VERIFY
   LEN LIN COL KEY  E=edit mask FLOAT . FIELD  NUM ORDER .   ORDER   FILE NAME
                    .          .      .                  .
001/
    001 001 013     . Q     E .      .                  .
002/
    002 002 013     . Q     E .      .                  .
003/
    004 003 013 001 . Q     E .      .                  .
004/
    002 004 013     . Q     E .      .                  .
```

Appendix Figure A-2. Data entry screen listing and attribute definitions for the DATEad.DTA file using a = Y and d = 1 in example (continued).

PROC FORM LISTING AND FIELD ATTRIBUTE DEFINITIONS

FIELD NUMBERS

****** A-Y-K Fish Ticket System *****

PROCESSOR PARAMETER FILE

Total Number of Processors In your area _1

Note: Once you designate the total number of processors you can not increase that number with in the season. Therefore you should allow your self a few extra processor positions in this file to allow for processors that may show up later in the season. Remember, this file can have only as many processors (records) as the total processors initially designated. Remember to perform File Maintenence if you update or correct anything in this file.

Enter Processor's Name : _____2

Enter Processor's Code : ____3

-Continued-

Appendix Figure A-3. Data entry screen listing and attribute definitions for the PROC.DTA file using a = Y and d = 1 in example.

PROC FORM LISTING AND FIELD ATTRIBUTE DEFINITIONS

ENTRY CONTROL MASK

****** A-Y-K Fish Ticket System *****

PROCESSOR PARAMETER FILE

Total Number of Processors in your area XX

Note: Once you designate the total number of processors you can not increase that number with in the season. Therefore you should allow your self a few extra processor positions in this file to allow for processors that may show up later in the season. Remember, this file can have only as many processors (records) as the total processors initially designated. Remember to perform File Maintenence if you update or correct anything in this file.

Enter Processor's Name : _____

Enter Processor's Code : _____

CONTENT CONTROL MASK

****** A-Y-K Fish Ticket System *****

PROCESSOR PARAMETER FILE

Total Number of Processors in your area 99

Note: Once you designate the total number of processors you can not increase that number with in the season. Therefore you should allow your self a few extra processor positions in this file to allow for processors that may show up later in the season. Remember, this file can have only as many processors (records) as the total processors initially designated. Remember to perform File Maintenence if you update or correct anything in this file.

Enter Processor's Name : ddddddddddddddd

Enter Processor's Code : E9999

-Continued-

Appendix Figure A-3. Data entry screen listing and attribute definitions for the PROC.DTA file using a = Y and d = 1 in example (continued).

PROC FORM LISTING AND FIELD ATTRIBUTE DEFINITIONS .

FIELD ATTRIBUTE DEFINITIONS

```
                    Q=required
                    C=check dgt
                    J=right just       * * D E R I V E D *
                    W=write ed c       .     LIST    CALC *****VERIFICATION****
                    O=oper entry       .                  .
FIELD NUM/NAME      R=range chk  PAD/ . INDEX ITEM        .          FILE VERIFY
    LEN LIN COL KEY E=edit mask FLOAT . FIELD  NUM ORDER .   ORDER   FILE NAME
                    .          .      .                  .
001/
    002 005 056     . Q      E .      .                  .
002/
    015 015 042     .        E .      .                  .
003/
    005 017 042 001 .        E .      .                  .
```

Appendix Figure A-3. Data entry screen listing and attribute definitions for the PROC.DTA file using a = Y and d = 1 in example (continued).

SPECIES FORM LISTING AND FIELD ATTRIBUTE DEFINITIONS

FIELD NUMBERS

Species Parameter File Used By Datastar and the AYK Fish Ticket Processing System.

Species Name .....: _____1
Species Code .....: _2
Min. acceptable ave. weight : _3
Max. acceptable ave. weight : _4
Max. catch per fish ticket .: _5

NOTE: You can have a maximum of 6 (six) species in this file.

REMEMBER to perform file maintenence if you update or revise this file.

Appendix Figure A-4. Data entry screen listing and attribute definitions for the SPECIES.DTA file using a = Y and d = 1 in example.

SPECIES FORM LISTING AND FIELD ATTRIBUTE DEFINITIONS

ENTRY CONTROL MASK

Species Parameter File Used By Datastar and the AYK Fish Ticket Processing System.

```
Species Name ..............: ______     NOTE: You can have a maximum of 6
Species Code ..............: 111             (six) species in this file.
Min. acceptable ave. weight : __
Max. acceptable ave. weight : __       REMEMBER to perform file maintenence
Max. catch per fish ticket .: ___          if you update or revise this file.
```

CONTENT CONTROL MASK

Species Parameter File Used By Datastar and the AYK Fish Ticket Processing System.

```
Species Name ..............: ddddddd    NOTE: You can have a maximum of 6
Species Code ..............: 999             (six) species in this file.
Min. acceptable ave. weight : 99
Max. acceptable ave. weight : 99       REMEMBER to perform file maintenence
Max. catch per fish ticket .: 999          if you update or revise this file.
```

-Continued-

Appendix Figure A-4. Data entry screen listing and attribute definitions for the SPECIES.DTA file using a = Y and d = 1 in example (continued).

SPECIES FORM LISTING AND FIELD ATTRIBUTE DEFINITIONS

FIELD ATTRIBUTE DEFINITIONS

```
                    Q=required
                    C=check dgt
                    J=right just       * * D E R I V E D *
                    W=write ed c       .     LIST    CALC *****VERIFICATION****
                    O=oper entry       .                  .
FIELD NUM/NAME      R=range chk  PAD/  . INDEX ITEM       .          FILE VERIFY
    LEN LIN COL KEY E=edit mask FLOAT . FIELD  NUM ORDER .   ORDER   FILE NAME
                    .          .      .                  .
001/
    007 004 030     .       E  .      .                  .
002/
    003 005 030 001 .       E  .      .                  .
003/
    002 006 030     .       E  .      .                  .
004/
    002 007 030     .       E  .      .                  .
005/
    003 008 030     .       E  .      .                  .
```

Appendix Figure A-4. Data entry screen listing and attribute definitions for the SPECIES.DTA file using a = Y and d = 1 in example (continued).

APPENDIX B. EXAMPLES OF REPORTS GENERATED FROM REPMENU

REPMENU.BAS
AYK Fish Ticket Processing System
This is a menu program that accesses 7 different reporting programs.

```
=====================================================================
    (1.) Period Summary Report with catch and C.P.U.E. broken down
         by stat area for one fishing period.

    (2.) Season Summary Report with catch and C.P.U.E. and
         cumulative catch and C.P.U.E. by period for THREE species.
         (Can send output to a file)

    (3.) Season Summary Report. Similar to No.2, gives catch and
         C.P.U.E. (but not cumulatives) by period for up to 6
         species. (Can send output to text file).

    (4.) Season Summary Report. Similar to No.3, gives catch and
         WEIGHT by period for up to 6 species.

    (5.) Period Processor Report. Gives the production breakdown
         by processor for one fishing period.

    (6.) Season Processor Report. Gives the total production by
         processor for the season.

    (7.) Production for one processor by period for the season.

    (8.) Return to system.
-------------------> ENTER REPORT OPTION --------------->:
```

Appendix Figure B-1. Report options available from REPMENU.BAS.

```
==============VARIATIONS OF REPORT OPTION 1=================

   (1.)  PERIOD CATCH SUMMARY REPORT WITHOUT CUMULATIVE CPUE

   (2.)  PERIOD CATCH SUMMARY REPORT WITH CUMULATIVE CPUE

   (3.)  PERIOD CATCH SUMMARY REPORT WITH EQ. CHUM AND ROE
                    ****WARNING****
         THIS PROGRAM REQUIRES THAT ROE IS SPECIES #1 AND
            CHUM IS SPECIES #4 IN YOUR SPECIES.DTA FILE

------------> ENTER REPORT OPTION ------------>:
```

Appendix Figure B-2. Menu of report variations for report option one of REPMENU.BAS.

X-1-01
5/8/84

1984 Kotzebue Area Period Catch Statistics

District: 1 Period: 1
Period Length: 6 Hrs.

Starting Day:07/11
Ending Day :07/11

**** Chum ****

Stat	Permits	Chum	Weight	Ave. Wt.	C.P.U.E.	Percent	Cumulative
33101	1	8	76	9.50	1.33	10.5	8
33102	1	68	519	7.63	11.33	89.5	68
33103	0	0	0	0.00	0.00	0.0	0
33104	0	0	0	0.00	0.00	0.0	0
Totals	2	76	595	7.83	6.33	100.0	76

Appendix Figure B-3. Report option one variation one of REPMENU.BAS, a period catch summary.

X-1-01
5/8/84

1984 Kotzebue Area Period Catch Statistics

District: 1 Period: 1
Period Length: 6 Hrs.

Starting Day:07/11
Ending Day :07/11

**** Chum ****

Stat	Permits	Chum	Weight	Ave. Wt.	CPUE	Cum CPUE	Percent	Cumulative
33101	1	8	76	9.50	1.33	1.33	10.5	8
33102	1	68	519	7.63	11.33	11.33	89.5	68
33103	0	0	0	0.00	0.00	0.00	0.0	0
33104	0	0	0	0.00	0.00	0.00	0.0	0
Totals	2	76	595	7.83	6.33	6.33	100.0	76

Appendix Figure B-4. Report option one variation two of REPMENU.BAS, a period catch summary.

Y-4-04
5/23/84

1984 UPPER YUKON Area Period Catch Statistics

District: 4 Period: 4
Period Length: 48 Hrs.

Starting Day:06/26
Ending Day :06/28

**** ROE ****

Stat	Permits	ROE	Weight	Ave. Wt.	C.P.U.E.	Percent	Cumulative
33441	26	0	10,858	0.00	8.70	0.0	15,195
33442	11	0	965	0.00	1.83	0.0	1,020
33443	0	0	0	0.00	0.00	0.0	0
Totals	37	0	11,823	0.00	6.66	0.0	16,215

**** CHINOOK ****

Stat	Permits	CHINOOK	Weight	Ave. Wt.	C.P.U.E.	Percent	Cumulative
33441	26	0	0	0.00	0.00	0.0	0
33442	11	40	673	16.83	0.08	100.0	40
33443	0	0	0	0.00	0.00	0.0	0
Totals	37	40	673	16.83	0.02	100.0	40

**** EQ. CHUM ****

Stat	Permits	Eq. Ch	Weight	Ave. Wt.	C.P.U.E.	Percent	Cumulative
33441	26	10,858	N/A	N/A	8.70	91.8	15,195
33442	11	965	N/A	N/A	1.83	8.2	1,020
33443	0	0	N/A	N/A	0.00	0.0	0
Totals	37	11,823	N/A	N/A	6.66	100.0	16,215

Appendix Figure B-5. Report option one variation three of REPMENU.BAS, a period catch summary.

5/8/84

Example of report option two with Kotzebue data

	Period Dates	Hours Fished	No. of Fishermen	Period Catch and Catch Per Unit Effort						Cumulative Catch and Catch Per Unit Effort					
				Chinook	CPUE	Pink	CPUE	Chum	CPUE	Chinook	CPUE	Pink	CPUE	Chum	CPUE
1	7/11-7/11	6	2	0	0.00	0	0.00	76	6.33	0	0.00	0	0.00	76	6.33
2	7/12-7/15	42	5	1	0.00	0	0.00	363	1.73	1	0.00	0	0.00	439	1.98
3	7/18-7/19	24	3	0	0.00	0	0.00	136	1.89	1	0.00	0	0.00	575	1.96
4	7/21-7/22	24	2	0	0.00	0	0.00	97	2.02	1	0.00	0	0.00	672	1.96
5	7/25-7/26	24	2	20	0.42	0	0.00	148	3.08	21	0.05	0	0.00	820	2.10
Season Total				21		0		820							

Appendix Figure B-6. Report option two of REPMENU.BAS, a season summary for three species with cumulative catch and CPUE.

5/8/84

Example of report option three with Kotzebue data

	Period Dates	Hours Fished	No. of Fishermen	Period Catch and Catch Per Unit Effort							
				Chinook	CPUE	Pink	CPUE	Chum	CPUE	Char	CPUE
1	7/11-7/11	6	2	0	0.00	0	0.00	76	6.33	0	0.00
2	7/12-7/15	42	5	1	0.00	0	0.00	363	1.73	0	0.00
3	7/18-7/19	24	3	0	0.00	0	0.00	136	1.89	0	0.00
4	7/21-7/22	24	2	0	0.00	0	0.00	97	2.02	0	0.00
5	7/25-7/26	24	2	20	0.42	0	0.00	148	3.08	0	0.00
Season Total				21		0		820		0	

5/22/84

Example of report option three for the upper Yukon area

	Period Dates	Hours Fished	No. of Fishermen	Period Catch and Catch Per Unit Effort							
				ROE	CPUE	CHINOOK	CPUE	CHUM	CPUE	EQ CHUM	CPUE
1	6/15-6/17	48	1	96	2.00	0	0.00	0	0.00	96	2.00
2	6/19-6/21	48	5	934	3.89	0	0.00	0	0.00	934	3.89
3	6/22-6/24	48	15	3,362	4.67	0	0.00	0	0.00	3,362	4.67
4	6/26-6/28	48	37	11,823	6.66	40	0.02	0	0.00	11,823	6.66
5	6/29-7/01	48	34	11,172	6.85	0	0.00	0	0.00	11,172	6.85
Season Total				27,387		40		0		27,387	

Appendix Figure B-7. Report option three of REPMENU.BAS, a season summary for up to six species without cumulatives. The bottom example is a variation for the upper Yukon area and calculates equivalent chum salmon from roe sales (one pound of roe equals one chum salmon).

5/8/84

Example of report option four with Kotzebue data

	Period Dates	Hours Fished	No. of Fishermen	Period Catch in Numbers and Pounds							
				Chinook	Pounds	Pink	Pounds	Chum	Pounds	Char	Pounds
1	7/11-7/11	6	2	0	0	0	0	76	595	0	0
2	7/12-7/15	42	5	1	25	0	0	363	3,105	0	0
3	7/18-7/19	24	3	0	0	0	0	136	1,055	0	0
4	7/21-7/22	24	2	0	0	0	0	97	813	0	0
5	7/25-7/26	24	2	20	200	0	0	148	1,319	0	0
Season Total				21	225	0	0	820	6,887	0	0

Appendix Figure B-8. Report option four of REPMENU.BAS, a season summary for up to six species with numbers and pounds and no cumulatives.

X-1-01
5/8/84

1984 Kotzebue Area Processor Production.

District: 1 Period: 1 Starting Day:07/11
Period Length: 6 Hrs. Ending Day :07/11

Processor	Chinook	Pounds	Pink	Pounds	Chum	Pounds
CATCHER SELLER	0	0	0	0	0	0
PROCESSOR 1	0	0	0	0	0	0
PROCESSOR 2	0	0	0	0	0	0
PROCESSOR 3	0	0	0	0	76	595
PROCESSOR 4	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
Totals	0	0	0	0	76	595

Appendix Figure B-9. Report option five of REPMENU.BAS, a period processor report.

5/8/84

1984 Kotzebue Area Season Processor Production.

District: 1

Processor	Chinook	Pounds	Pink	Pounds	Chum	Pounds
CATCHER SELLER	0	0	0	0	32	271
PROCESSOR 1	1	25	0	0	246	2,088
PROCESSOR 2	0	0	0	0	0	0
PROCESSOR 3	20	200	0	0	542	4,528
PROCESSOR 4	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
	0	0	0	0	0	0
Totals	21	225	0	0	820	6,887

Appendix Figure B-10. Report option six of REPMENU.BAS, a season summary processor report.

5/8/84

1984 PROCESSOR 1 Season Production.

District: 1

Period		Chinook	Pounds	Pink	Pounds	Chum	Pounds
1	7/11-7/11	0	0	0	0	76	595
2	7/12-7/15	0	0	0	0	170	1,422
3	7/18-7/19	0	0	0	0	51	379
4	7/21-7/22	0	0	0	0	97	813
5	7/25-7/26	20	200	0	0	148	1,319
Totals		20	200	0	0	542	4,528

Appendix Figure B-11. Report option seven of REPMENU.BAS, a season production report for one processor.

```
CATCH program run on Kotzebue Area Fish Ticket Master File
      Date of run.....: 5/11/84
      District.....: X-1
      Period Number....:  1
      Fishing Dates....: 07/11 - 07/11
      Relevant tickets.:  2

      Species ( 410 ) Total Catch ...:  0
      Species ( 440 ) Total Catch ...:  0
      Species ( 450 ) Total Catch ...:  76
      Species ( 520 ) Total Catch ...:  0
      Species ( 570 ) Total Catch ...:  0
      Species ( 0 ) Total Catch ...:  0
```

Appendix Figure B-12. Report generated by CATCHa.COM.

1984, KUSKOKWIM Area Effort Calculation.

Input Files	Date Ranges
B:FISH-W1.84	6/10 - 6/20

	***** NUMBER OF FISH *****					
Permits	CHINOOK	SOCKEYE	COHO	PINK	CHUM	WHFISH
483	10,840	408	0	0	5,793	0

	***** POUNDS OF FISH *****					
Permits	CHINOOK	SOCKEYE	COHO	PINK	CHUM	WHFISH
483	210,378	2,936	0	0	48,180	0

Appendix Figure B-13. Report generated by CATCH3.COM.

APPENDIX C. MANAGEMENT AREA SPECIFIC INFORMATION FOR AYK SALMON FISH TICKET PROCESSING

KOTZEBUE MANAGEMENT AREA

The Kotzebue management area consists of one commercial fishing district (Appendix Table C-1) where the area office is located in Kotzebue. The management area code is the letter "X" and all salmon CFEC permits begin with "S04X". Therefore, in applying this manual to fish ticket processing in Kotzebue translate the file named BATCHad to BATCHX1 where ad = X1 for all subsequent file names.

At the beginning of each season a log book will need to be set up for Kotzebue's one fishing district and subsequent fish ticket batch files. See Appendix Table C-1 for fish ticket numbers and batch numbers allocated to this management area. Examples of log forms that must be prepared for each Anchorage batch data diskette can be found in Appendix D.

The program PARAM.BAS must also be run at the beginning of each season to create parameter files necessary for fish ticket processing. See Appendix Figure C-1 for an example of it's use in 1984 for the Kotzebue management area.

Notes on Parameter Files

DATEX1.DTA: In 1983 only AYK fishery code 1 was used.

SPECIES.DTA See Appendix Table C-2 for information to be used in 1984. Use this information unless instructed otherwise by your supervisor.

PROC.DTA See Appendix Table C-3 for information used in 1984. Use these codes if none are available from a processor's fish tickets or from Appendix F.

Appendix Table C-1. Allocation and parameter file information for salmon fish ticket processing in the Kotzebue area office for the Kotzebue management area (a=x).

District Name	District Number	Stat Area	Allocated Ticket Range	Allocated Batch Range	1983 Tickets Entered	Usage Batches Used
Kotzebue	1	33101 33102 33103 33104	750,001 - 800,000	1-999	3,112	24
				Total	3,112	24

```
A>MBASIC5 PARAM

Creating the general information file 'HEADER.PRM'.
==================================================

Enter AYK area name (max 15 characters)   :?  KOTZEBUE
Enter area code (examp. 'Y' for L. Yukon) :?  X
Enter REGION No. (probably '3')           :?  3
Enter fishing season YEAR (2 digits )     :?  84

How many fishing districts are in the KOTZEBUE AREA    ? 1

Is everything OK so far ?  Y

Enter first district number :? 1


Creating Statistical Area Data Files
====================================================

District No. 1                          Filename : STAT-X1.PRM

Enter the three digit stat code that identifies
the KOTZEBUE AREA district No. 1 ?..... 331


How many stat areas in district ? 4

Complete stat area number----> 331  ? 01
Complete stat area number----> 331  ? 02
Complete stat area number----> 331  ? 03
Complete stat area number----> 331  ? 04


Is everything A-O-K ? Y



Creating the GEAR Data File 'GEAR.PRM'
==========================================

Enter the total number of gear types in the KOTZEBUE AREA ? 1

Enter gear type name? GILL NET                Code? 04

Is everything  O-K with the FISHING GEAR ? Y

OK SYSTEM
```

Appendix Figure C-1. Procedure to run the PARAM.BAS program for the Kotzebue area. User replies are underlined.

Appendix Table C-2. Data used in creating the SPECIES.DTA file for the Kotzebue management area.

Species Name	Species Code	Minimum Average Weight	Maximum Average Weight	Maximum Allowable Catch
Chinook	410	3	60	20
Pink	440	1	10	100
Chum	450	6	12	999
Char	520	2	12	100
Sheefi	570	5	40	100

Appendix Table C-3. Data used in creating the PROC.DTA file for the Kotzebue management area.

Name of Processor	Processor Code
Alaska SFDS	14247
Nana Corporation	F0378
Kotzebue Comm	F0053
Catcher Seller	C5000

KUSKOKWIM MANAGEMENT AREA

The Kuskokwim management area includes four districts where commercial fishing is allowed (Appendix Table C-4) with the area office located in Bethel. The management area code is the letter "W" and all salmon CFEC permits begin with "S04W". Therefore, in applying this manual to fish ticket processing in Bethel translate the files named BATCHad to BATCHW1 through BATCHW5, where ad = W1, W2, W4, or W5.

At the beginning of each season a log book will need to be set up to include the Kuskokwim area's four districts and subsequent fish ticket batch files. See Appendix Table C-4 for fish ticket numbers and batch numbers allocated to each district. See Appendix D for examples of log forms that must be prepared for each district and Anchorage batch data diskette.

The program PARAM.BAS must also be run at the beginning of each season to create parameter files necessary for fish ticket processing. See Appendix Figure C-2 for an example of it's use in 1984 for the Kuskokwim management area.

Notes on Parameter Files

DATEWd.DTA: For district W-1 and W-2 two AYK fishery codes are used. Use "1" for the chinook and chum salmon season and a "2" for the coho salmon season. Check with your supervisor as to when each of these begin.

SPECIES.DTA: See Appendix Table C-5 for information historically used. Use the same information this year unless instructed otherwise by your supervisor.

PROC.DTA: See Appendix Table C-6 for information used in 1984. Use these codes if none are available from a processor's fish tickets, and it can not be found in Appendix F.

Warnings

The Master fish ticket file for W-1 (FISH-W1.YY) will become too large to fit one diskette. Therefore, create two Master files for W-1. One for the chinook and chum salmon season and another for the coho salmon season which would be stored on a new diskette. Note this corresponds to the fishery code 1 and 2 used in the DATEW1.DTA file. When you begin coho salmon season skip one batch number and 200 fish ticket numbers. This batch will be "saved" for late arriving chum or chinook season fish tickets and would be appended to the Master fish ticket file for Chum and Chinook Season. Label your diskettes clearly as "FISH-W1.84 - CHINOOK & CHUM SEASON" or "FISH-W1-84 - COHO SEASON". Your system diskette will also become too large to hold all four districts. At the beginning of the year have one system diskette with W-1 and W-2 and another for W-4 and W-5. Similarly keep the Master fish ticket file for W-4 and W-5 on a separate diskette from W-1 and W-2.

Appendix Table C-4. Allocation and parameter file information for salmon fish ticket processing in the Bethel area office for the Kuskokwim management area (a=W).

District Name	District Number (d)	Stat Areas	Allocated Ticket Range	Allocated Batch Range	1983 Usage Tickets Entered	Batches Used
Kuskokwim River (W-1)	1	33511 33512	700,001 - 720,000	101-200	7,948	101-153
Kuskokwim River (W-2)	2	33520	720,001 - 725,000	201-300	131	201-206
Quinhagak	4	33540	730,001 - 740,000	401-500	2,128	401-428
Goodnews Bay	5	33550	740,001 - 750,000	501-600	777	501-524
				TOTAL	10,984	111
NOTE: Allocation for Herring Fish Tickets						
All Districts			725,001 - 730,000	900-999		

```
A>MBASIC5 PARAM


Creating the general information file 'HEADER.PRM'.
==================================================

Enter AYK area name (max 15 characters)   :? Kuskokwim
Enter area code (examp. 'Y' for L. Yukon) :? W
Enter REGION No. (probably '3')           :? 3
Enter fishing season YEAR (2 digits )     :? 84

How many fishing districts are in the Kuskokwim area   ? 4

Is everything OK so far ?  Y

Enter first district number  :? 1
Enter second district number :? 2
Enter third district number  :? 4
Enter fourth district number :? 5


Creating Statistical Area Data Files
====================================================

District No. 1                          Filename : STAT-W1.PRM

Enter the three digit stat code that identifies
the Kuskokwim district No. 1  ?..... 335

How many stat areas in district ? 2

Complete stat area number---->335 ? 11
Complete stat area number---->335 ? 12

Is everything A-O-K ? Y


==========================================================


District No. 2                          Filename : STAT-W2.PRM

Enter the three digit stat code that identifies
the Kuskokwim district No. 2  ?..... 335

How many stat areas in district ? 1

Complete stat area number---->335 ? 20

Is everything A-O-K ? Y
```

-Continued-

Appendix Figure C-2. Procedure to run the PARAM.BAS program for the Kuskokwim area. User replies are underlined.

```
==========================================================

District No. 4                          Filename : STAT-W4.PRM

Enter the three digit stat code that identifies
the Kuskokwim district No. 4  ?..... 335

How many stat areas in district ? 1

Complete stat area number---->335 ? 40

Is everything A-O-K ? Y

==========================================================

District No. 5                          Filename : STAT-W5.PRM

Enter the three digit stat code that identifies
the Kuskokwim district No. 5  ?..... 335

How many stat areas in district ? 1

Complete stat area number---->335 ? 50

Is everything A-O-K ? Y


Creating the GEAR Data File 'GEAR.PRM'
==========================================

Enter the total number of gear types in the Kuskokwim area ? 1

Enter gear type name? GILL NET              Code? 04

Is everything  O-K with the FISHING GEAR ? Y

OK SYSTEM
```

Appendix Figure C-2. Procedure to run the PARAM.BAS program for the Kuskokwim area. User replies are underlined (continued).

Appendix Table C-5. Data used in creating the SPECIES.DTA file for the Kuskokwim management area.

Species Name	Species Code	Minimum Average Weight	Maximum Average Weight	Maximum Allowable Catch
Chinook	410	04	80	200
Sockeye	420	02	16	300
Coho	430	03	20	300
Pink	440	01	13	200
Chum	450	02	26	750
WhFish	580	01	50	999

Appendix Table C-6. Data used in creating the PROC.DTA file for the Kuskokwim management area.

Name of Processor	Processor Code
Calista Emmon	F0166
Kemp	F0187
J B Crow SD	F0373
IFQ	77513
Howard Diamond	F0410
Patson	40559
Sea Fisher	F0423
Fish Prod L	F0153
Y K Fish	52774
Ted Solomon	02582
Har Moon SF	F0307

NORTON SOUND MANAGEMENT AREA

The Norton Sound management area consists of six units, which management considers sub-districts, but will be considered districts for purposes of salmon fish ticket processing (Appendix Table C-7). The area office is located in Nome. The management area code is the letter "Z" and all salmon CFEC permits begin with S04Z. Therefore, in reading this manual for Norton Sound translate BATCHad to BATCHZ1 through BATCHZ6, where ad = Z1, Z2, ..., Z6 in the appropriate file names.

At the beginning of each season a log book will need to be set up to include Norton Sound's six districts and the resulting fish ticket batch files. See Appendix Table C-7 for ticket numbers and batch numbers allocated to each district. See Appendix D for examples of the log forms that must be prepared for each district and Anchorage Batch data diskette.

It has been found in the past that one system diskette (Figure 4) will not hold all six districts in Norton Sound. Therefore, three system diskettes must be prepared as follows:

1. One system diskette for districts 1,2,3 with the following files:

   BATCHZ1.DEF, DATEZ1.DEF

   BATCHZ2.DEF, DATEZ2.DEF

   BATCHZ3.DEF, DATEZ3.DEF

   replacing file BATCHad.DEF and DATEad.DEF in Figure 4. Be sure that all other files in Figure 4 reside on this diskette.

2. One system diskette for districts 4,5,6 with the following files:

   BATCHZ4.DEF, DATEZ4.DEF

   BATCHZ5.DEF, DATEZ5.DEF

   BATCHZ6.DEF, DATEZ6.DEF

   replacing files BATCHad.DEF and DATEad.DEF in Figure 4.

3. Lastly, you may need to set up a third system diskette for entering data from "pink periods". These are fishing periods where fishermen are restricted to the use of gill nets of the size specifically for pink salmon. Inquire what districts to expect them in, and set up a system disk to include those districts. Label the diskette "Pink Period Data" and only enter batches of fish tickets from fishing periods using pink gear. Number these uniquely from the other fishing periods of that district. See Appendix Figure C-3 for a comparison of DATEZ6.DTA files one which includes regular fishing period data and one with pink period data only.

Appendix Table C-7. Allocation and parameter file information for salmon fish ticket processing in the Nome area office for the Norton Sound management area (a=Z).

District Name	District Number (d)	Stat Areas	Allocated Ticket Range	Allocated Batch Range	Pink/Chum Ticket Range Allocation	1983 Usage Tickets Entered	1983 Usage Batches Used
Nome	1	33310	850,001 - 855,000	101-200	Chum 850,001 - 854,000 Pink 854,001 - 855,000	148	101-108
Golovin	2	33320	855,001 - 860,000	201-300	Chum 855,001 - 859,000 Pink 859,001 - 860,000	613	201-213
Moses Pt.	3	33331 33332 33333	860,001 - 865,000	301-400	Chum 860,001 - 864,000 Pink 864,001 - 865,000	921	301-310
Norton Bay	4	33340	865,001 - 870,000	401-500	Chum 865,001 - 869,000 Pink 869,001 - 870,000	295	401-412
Shaktoolik	5	33350	870,001 - 880,000	501-600	Chum 870,001 - 879,000 Pink 879,001 - 880,000	1,118	501-524
Unalakleet	6	33360	880,001 - 890,000	601-700	Chum 880,001 - 887,000 Pink 887,001 - 890,000	3,384	601-630
					TOTAL	6,479	97
NOTE: Allocation for Herring Fish Tickets							
All Districts			890,001 - 900,000	900-999			

```
  1,01,0616,06
1,01,0617,18
1,02,0620,06
1,02,0621,18
1,03,0623,06
1,03,0624,18
1,04,0627,06
1,04,0628,24
1,04,0629,18
1,05,0630,06
1,05,0701,24
1,05,0702,24
1,05,0703,18
1,06,0704,06
1,07,0705,24
1,08,0706,24
1,09,0707,24
1,10,0708,24
1,11,0709,24
1,12,0710,24
1,13,0711,24
1,14,0712,24
1,15,0713,24
1,16,0714,24
1,17,0715,24
1,18,0716,24
1,19,0717,24
1,20,0718,24
1,21,0719,24
1,22,0720,24
1,23,0721,24
1,24,0722,24
1,25,0723,24
1,26,0724,24
,,,
```

```
1,01,0616,06
1,01,0617,18
1,02,0620,06
1,02,0621,18
1,03,0623,06
1,03,0624,18
1,04,0627,06
1,04,0628,24
1,04,0629,18
1,05,0630,06
1,05,0701,24
1,05,0702,24
1,05,0703,18
1,06,0704,06
1,07,0705,24
1,08,0706,24
1,09,0707,24
1,10,0708,24
1,11,0709,24
1,12,0710,24
1,13,0711,24
1,14,0712,24
1,15,0713,24
1,16,0714,24
1,17,0715,24
1,18,0716,24
1,19,0717,24
1,20,0718,24
1,21,0719,24
1,22,0720,24
1,23,0721,24
1,24,0722,24
1,25,0723,24
1,26,0724,24
,,,
```

Appendix Figure C-3. Example of the DATEad.DTA file for Norton Sound used with pink periods (right) and without (left).

The program PARAM.BAS must be also run at the beginning of each season to create parameter files necessary for fish ticket processing. See Appendix Figure C-4 for an example of its use in 1984 for the Norton Sound management area.

In 1983 a code 1 fishing season was used throughout the season for all districts in Norton Sound. This was done in 1983, though you may want to check with your supervisor. Refer to Appendix Table C-8 to help build your SPECIES.DTA file. It may be necessary to set up a completely separate diskette for miscellaneous species (i.e., the species which would come after the six in SPECIES.DTA). Appendix Table C-9 presents processor codes used in 1984.

```
A>MBASIC5 PARAM

Creating the general information file 'HEADER.PRM'.
==================================================

Enter AYK area name (max 15 characters)   :? NORTON SOUND
Enter area code (examp. 'Y' for L. Yukon) :? Z
Enter REGION No. (probably '3')           :? 3
Enter fishing season YEAR (2 digits )     :? 84

How many fishing districts are in the NORTON SOUND AREA ? 6

Is everything OK so far ? Y

Enter first district number  :? 1
Enter second district number :? 2
Enter third district number  :? 3
Enter fourth district number :? 4
Enter fifth district number  :? 5
Enter sixth district number  :? 6



Creating Statistical Area Data Files
================================================

District No. 1                          Filename : STAT-Z1.PRM

Enter the three digit stat code that identifies
the NORTON SOUND district No. 1?..... 333

How many stat areas in district ? 1

Complete stat area number---->333? 10

Is everything A-O-K ? Y
```

-Continued-

Appendix Figure C-4. Procedure to run the PARAM.BAS program for the Norton Sound area. User replies are underlined.

```
================================================

District No. 2                          Filename : STAT-Z2.PRM

Enter the three digit stat code that identifies
the NORTON SOUND district No. 2?..... 333

How many stat areas in district ? 1

Complete stat area number---->333? 20

Is everything A-O-K ? Y


================================================

District No. 3                          Filename : STAT-Z3.PRM

Enter the three digit stat code that identifies
the NORTON SOUND district No. 3?..... 333

How many stat areas in district ? 1

Complete stat area number---->333? 31
Complete stat area number---->333? 32
Complete stat area number---->333? 33

Is everything A-O-K ? Y


================================================

District No. 4                          Filename : STAT-Z4.PRM

Enter the three digit stat code that identifies
the NORTON SOUND district No. 4?..... 333

How many stat areas in district ? 1

Complete stat area number---->333? 40

Is everything A-O-K ? Y
```

-Continued-

Appendix Figure C-4. Procedure to run the PARAM.BAS program for the Norton Sound area. User replies are underlined (continued).

```
================================================

District No. 5                          Filename : STAT-Z5.PRM

Enter the three digit stat code that identifies
the NORTON SOUND district No. 5?..... 333

How many stat areas in district ? 1

Complete stat area number---->333? 50

Is everything A-O-K ? Y


================================================

District No. 6                          Filename : STAT-Z6.PRM

Enter the three digit stat code that identifies
the NORTON SOUND district No. 6?..... 333

How many stat areas in district ? 1

Complete stat area number---->333? 60

Is everything A-O-K ? Y


Creating the GEAR Data File 'GEAR.PRM'
==========================================

Enter the total number of gear types in the NORTON SOUND area? 1

Enter gear type name? GILL NET          Code? 04

Is everything  O-K with the FISHING GEAR ? Y


OK SYSTEM
```

Appendix Figure C-4. Procedure to run the PARAM.BAS program for the Norton Sound area. User replies are underlined (continued).

Appendix Table C-8. Data used in creating the SPECIES.DTA file for the Norton Sound management area.

Species Name	Species Code	Minimum Average Weight	Maximum Average Weight	Maximum Allowable Catch
Roe	400	(not applicable do not enter)		
Chinook	410	02	60	100
Sockeye	420	02	20	25
Coho	430	03	25	600
Pink	440	01	10	999
Chum	450	03	20	600

Appendix Table C-9. Data used in creating the PROC.DTA file for the Norton Sound management area.

Name of Processor	Processor Code
Nome B Vent	01926
Three NC	03555
Catcher Seller	C5000
Pacific SFDS	F0080
Alaska Her	F0101
WP LTD	F0231
Whitney Fidalgo	F0392
Ak. Herring	F0431
Three N Corp	F0495
Tenth and M	F0528

YUKON MANAGEMENT AREA - LOWER YUKON

The lower Yukon area consists of the lower three districts of the Yukon management area. The area office is located in Anchorage, with the management assistant located in Bethel. During the commercial fishing season, operations are based out of a field office in Emmonak. The management area code letter is "Y", and all salmon CFEC permits begin with "S04Y". Thus the DataStar batch files for the lower Yukon are named BATCHY1, BATCHY2, and BATCHY3 for districts Y-1, Y-2, and Y-3, respectively.

In addition to the AYK Fish Ticket Manual, a fish ticket editing notebook is maintained. This notebook contains editing log sheets, and listing of processors and permit holders. Set up a log book for the lower Yukon's three districts and subsequent fish ticket batch files. See Appendix Table C-10 for fish ticket numbers and batch numbers allocated to each district. See Appendix D for examples of log forms that must be prepared for each district and Anchorage batch data diskette.

The program PARAM.BAS must also be run at the beginning of each season to create parameter files necessary for fish ticket processing. See Appendix Figure C-5 for an example of its use in 1984 for the lower Yukon area office.

Notes on Parameter Files

DATEYd.DTA: Three AYK fishery codes are used. Use "1" for the chinook salmon season, "2" for summer chum salmon season and a "3" for the fall chum salmon season. Check with your supervisor as to when each of these end and begin.

SPECIES.DTA See Appendix Table C-11 for historically used information. Use same information this year unless instructed otherwise by your supervisor.

PROC.DTA See Appendix Table C-12 for information used in 1984. Use these codes if none are available from a processor's fish tickets, and it can not be found in Appendix F.

The microcomputer system for the Emmonak office is a Vector 5005. This system has a 5 mega byte (5000 K) hard disk, and two terminals with time sharing as long as separate batches are being used. DO NOT try to have both terminals working on the same file, as data may be lost. Because it is a dual terminal system, it uses extended CP/M. Standard CP/M 2.2 will not work nor will command programs as sc.com operate. The CONFIG program is used to determine which terminal can use the printer at any time. To claim the printer from a given terminal, simply type "CONFIG" and choose option 1. If the printer is needed by the other terminal it must be released by the first. (CONFIG option 0).

```
A>MBASIC5 PARAM

Creating the general information file 'HEADER.PRM'.
==================================================

Enter AYK area name (max 15 characters)   :? LOWER YUKON
Enter area code (examp. 'Y' for L. Yukon) :? Y
Enter REGION No. (probably '3')           :? 3
Enter fishing season YEAR (2 digits )     :? 84

How many fishing districts are in the LOWER YUKON ? 3

Is everything OK so far ? Y

Enter first district number :? 1
Enter second district number:? 2
Enter third district number :? 3


Creating Statistical Area Data Files
====================================================

District No. 1                          Filename : STAT-Y1.PRM

Enter the three digit stat code that identifies
the LOWER YUKON district No. 1?..... 334

How many stat areas in district ? 8

Complete stat area number----> 334 ? 11
Complete stat area number----> 334 ? 12
Complete stat area number----> 334 ? 13
Complete stat area number----> 334 ? 14
Complete stat area number----> 334 ? 15
Complete stat area number----> 334 ? 16
Complete stat area number----> 334 ? 17
Complete stat area number----> 334 ? 18

 Is everything A-O-K ? Y
```

-Continued-

Appendix Figure C-5. Procedure to run the PARAM.BAS program for the lower Yukon area. User replies are underlined.

```
================================================

District No. 2                          Filename : STAT-Y2.PRM

Enter the three digit stat code that identifies
the LOWER YUKON district No. 2?..... 334

How many stat areas in district ? 5

Complete stat area number----> 334 ? 21
Complete stat area number----> 334 ? 22
Complete stat area number----> 334 ? 23
Complete stat area number----> 334 ? 24
Complete stat area number----> 334 ? 25

Is everything A-O-K ? Y


================================================

District No. 3                          Filename : STAT-Y3.PRM

Enter the three digit stat code that identifies
the LOWER YUKON district No. 3?..... 334

How many stat areas in district ? 2

Complete stat area number----> 334 ? 31
Complete stat area number----> 334 ? 32

Is everything A-O-K ? Y



Creating the GEAR Data File 'GEAR.PRM'
========================================

Enter the total number of gear types in the LOWER YUKON area? 1

Enter gear type name? GILL NET          Code? 04

Is everything  O-K with the FISHING GEAR ? Y


OK SYSTEM
```

Appendix Figure C-5. Procedure to run the PARAM.BAS program for the lower Yukon area. User replies are underlined (continued).

Appendix Table C-10. Allocation and parameter file information for salmon fish ticket processing in the Emmonak area office for the lower Yukon management area (a=Y).

District Name	District Number (d)	Stat Area	Allocated Ticket Range	Allocated Batch Range	1983 Tickets Entered	Usage Batches Used
Y-1	1	33411 33412 33413 33414 33415 33416 33417 33418	800,001 - 820,000	101-200	11,062	63
Y-2	2	33421 33422 33423 33424 33425	820,001 - 830,000	201-300	5,506	37
Y-3	3	33431 33432	830,001 - 835,000	301-400	158	2
				TOTAL	16,726	102
NOTE: The allocation for herring fish tickets						
All Districts:			848,001 - 850,000	900-999		

Appendix Table C-11. Data used in creating the SPECIES.DTA file for the lower Yukon management area.

Species Name	Species Code	Minimum Average Weight	Maximum Average Weight	Maximum Allowable Catch
Roe	400	(not applicable do not enter)		100
Chinook	410	2	80	250
Coho	430	4	20	300
Pink	440	1	10	100
Chum	450	4	20	500

Appendix Table C-12. Data used in creating the PROC.DTA file for the lower Yukon management area.

Name of Processor	Processor Code
Azaachorak	00741
Y K Fisheries	52774
Catcher Seller	C5000
Nakamora	F0055
Fish Products	F0153
Bering Sea	F0244
Boreal	F0308
Amukon Trading	F0328
Schenk Seafoods	F0368
Yukon Delta	F0390

The hard disk should be formatted to have two logical surfaces, A and B. It is wise at the start of each season to dump all of the files of the hard disk and reformat and sysgen. See the Vector manual for the procedure. This establishes logical drives A and B on the hard disk, each with 2,400 K of usable space. The floppy drive is drive C.

Logical drive A should be used for system programs, while logical drive B is reserved exclusively for fish ticket master files, (FISH-YD.YY etc.). One season's load of fish tickets generally fills up about 2000 K of space. The Master file for district Y-1, (FISH-Y1.YY) is too large to backup on one floppy. To make backup copies of this file it is necessary to use STORE.COM. This utility stores the data from large files on two or more diskettes as needed. To return the backed up file to the hard disk, use RESTORE.COM. The use of these is explained in the Vector manual.

To assist in organizing files and data on hard systems it is best to take advantage of user areas. The primary user area is zero, this is where the computer starts out when it is initially booted. To change user areas simply type "USER n", where n is the number of the area you want to go to. System utilities such as PIP, STAT, CONFIG, SC, etc. should be maintained on logical drive A, USER 0. These programs can be accessed from any other user area on drive A. For example if you are on USER 1, you can use PIP or STAT off USER 0 at any time. The reverse, however is not true, i.e., you cannot access programs off USER 1 from USER 0.

All of the fish ticket processing system programs and parameter files should be stored on drive A, USER 1. The master files, (FISH-Y1.YY, FISH-Y2.YY, and FISH-Y3.YY) will be stored on drive B, USER 1.

The batch storage files are loaded on to floppies in drive C. These files must be located on USER 0 of the diskette, in order for the Anchorage office to be able to use them. Thus when the BATCHad file is PIPed from drive A, USER 1 to drive C, USER 0 a revised format of the PIP statement must be used from that that is illustrated by the EDIT program. The statement should be typed in from drive C, USER 0 as follows:

```
C>PIP C:Y-d-bbb.YY=A:BATCHYd.DTA[G1]
```

The "[G1]" indicated that the PIP command must go to USER 1 to find BATCHYd.DTA. For a more complete explanation of user areas look up "USER" in Zaks (1980).

To set up an Anchorage Batch Data diskette (from Phase IV) first format the diskette using FORMAT.COM (see Chapter II). Then PIP over each file listed in Chapter V Phase IV-A (page 48) which should reside on drive A. In example the following commands could be used:

```
A>PIP C:=A:SC.COM

A>PIP C:=A:PIP.COM

A>PIP C:=A:D.COM

A>PIP C:=A:STAT.COM
```

YUKON MANAGEMENT AREA - UPPER YUKON

The Yukon management area consists of six districts. Only the upper three districts are managed by staff stationed in the upper Yukon area office in Fairbanks. Therefore the upper and lower Yukon area share the management area code letter of "Y". The upper Yukon area is unique within AYK in that two gear types are allowed, gill net (code 04) and fishwheel (code 08). Subsequently the salmon CFEC permits may begin with S04P or S08P. Note that recently CFEC replaced the "Y" with a "P" in the permit numbers but this does not correspond to a change in the management area code which remains "Y". In reading this manual for the upper Yukon area translate BATCHad to BATCHY4 to BATCHY6 where ad= Y4, Y5, or Y6 for all appropriate file names.

At the beginning of each salmon fishing season a log book will need to be set up to include the upper Yukon's three districts and the resulting batch files of fish ticket data. See Appendix Table C-13 for ticket numbers and batch numbers allocated to each district. See Appendix D for examples of the log forms that must be prepared for each district and Anchorage batch data diskette.

The program PARAM.BAS must also be run at the beginning of each season to create parameter files necessary for fish ticket processing. See Appendix Figure C-6 for an example of its use in 1984 for the upper Yukon.

The substantial roe harvest in the upper Yukon area has led to the development of several report options. Please use variation three of report option one of REPMENU.BAS and a special variation of option three has been developed. Some report options may not work with roe (2 only).

Notes on Parameter Files

DATEYd.DTA: In district Y-4, Y-5, &-6 a season code of "1" is used every fishing period. Also during some scheduled fishing periods in your area no fishermen will participate. Enter the data into the appropriate DATEYd.DTA file anyway and run CATCHa.COM as this will allow for their inclusion in the season summaries.

SPECIES.DTA: See Appendix Table C-14 for historically used information. Use the same information this year unless instructed otherwise by your supervisor.

PROC.DTA: See Appendix Table C-15 for information used in 1984. Use these codes if none are available from the fish tickets and they are not in Appendix F.

Appendix Table C-13. Allocation and parameter file information for salmon fish ticket processing in the Fairbanks office for the upper Yukon management area (a=Y).

District Name	District Number (d)	Stat Areas	Allocated Ticket Range	Allocated Batch Range	1983 Tickets Entered	Usage Batches Used
Y-4	4	33441 33442 33443	835,001 - 840,000	401-500	242	425-438
Y-5	5	33451 33452 33453 33454	840,001 - 845,000	501-600	340	501-509
Y-6	6	33461 33462 33463	845,001 - 848,000	601-700	312	601-608
				TOTAL	894	31
NOTE: Allocation for Herring Fish Tickets						
All Districts			848,001 - 850,000	900-999		

```
A>MBASIC5 PARAM

Creating the general information file 'HEADER.PRM'.
==================================================

Enter AYK area name (max 15 characters)   :? UPPER YUKON
Enter area code (examp. 'Y' for L. Yukon) :? Y
Enter REGION No. (probably '3')           :? 3
Enter fishing season YEAR (2 digits )     :? 84

How many fishing districts are in the UPPER YUKON ? 3

Is everything OK so far ? Y

Enter first district number :? 4
Enter second district number:? 5
Enter third district number :? 6


Creating Statistical Area Data Files
====================================================

District No. 4                        Filename : STAT-Y4.PRM

Enter the three digit stat code that identifies
the UPPER YUKON district No. 4?.....  334

How many stat areas in district ? 3

Complete stat area number----> 334 ? 41
Complete stat area number----> 334 ? 42
Complete stat area number----> 334 ? 43

Is everything OK so far ? Y
```

-Continued-

Appendix Figure C-6. Procedure to run the PARAM.BAS for the upper Yukon area. User replies are underlined.

```
================================================

District No. 5                          Filename : STAT-Y5.PRM

Enter the three digit stat code that identifies
the UPPER YUKON district No. 5?......  334

How many stat areas in district ?  4

Complete stat area number----> 334 ? 51
Complete stat area number----> 334 ? 52
Complete stat area number----> 334 ? 53
Complete stat area number----> 334 ? 54

Is everything OK so far ? Y


================================================

District No. 6                          Filename : STAT-Y6.PRM

Enter the three digit stat code that identifies
the UPPER YUKON district No. 6?......  334

How many stat areas in district ? 3

Complete stat area number----> 334 ? 61
Complete stat area number----> 334 ? 62
Complete stat area number----> 334 ? 63

Is everything OK so far ? Y


Creating the GEAR Data File 'GEAR.PRM'
==========================================

Enter the total number of gear types in the UPPER YUKON area? 2

Enter gear type name? GILL NET              Code? 04
Enter gear type name? FISHWHEEL             Code? 08

Is everything  O-K with the FISHING GEAR ? Y


OK  SYSTEM
```

Appendix Figure C-6. Procedure to run the PARAM.BAS for the upper Yukon area. User replies are underlined.

Appendix Table C-14. Data used in creating the SPECIES.DTA file for the upper Yukon area.

Species Name	Species Code	Minimum Average Weight	Maximum Average Weight	Maximum Allowable Catch
Roe	400	01	01	800
Chinook	410	02	80	100
Coho	430	01	10	999
Chum	450	01	15	999
SheeFi	570	01	25	020
WhiteF	580	01	10	025

Appendix Table C-15. Data used in creating the PROC.DTA file for the upper Yukon area.

Processor Name	Processor Code
Type Proc.dta	
Bastine Bros.	05055
Grayline Air	32797
Ak. Wild Salmon	45560
Kaltag Fish Co.	69780
Nenana Reefer	A1084
Catcher Seller	C5000
TJ Clark	F0293
Yutana Fish Co.	F0297
Johnson Fish Co.	F0449
Kyokko Galena	F0452
Walton Fish Co.	F0454
Nyquist Investm	F0471
Stevens Fish Co.	F0475
Williams, Straub	F0478
Delta Trading	S0281

APPENDIX D. LOGFORMS FOR THE AYK FISH TICKET SYSTEM

Area :_____

District :_____

Year :_____

Date	Operator	Batch No.	Fishing Periods Found in Batch	Starting Ticket No.	Ending Ticket No.	Computer Edited & Appended	Copied to Anchorage Disk/Backup	Erased BATCHad.DTA BATCHad.NDX

Appendix Figure D-1. A logform to be prepared for each district (d) in your management area.

Area : _____

District : _____

Year : _____

Disk # : _____

Date Disk Mailed : _____

Date Return Receipt Received: _____

Date Error Report Received: _____

Date Error Report Returned: _____

Batch File Name a-d-BBB-YY	Starting Ticket No.	Ending Ticket No.	Number of Errors Present When Sent To Anchorage	Anchorage Error Listing	Date Errors Corrected	Comments

Appendix Figure D-2. A logform to be complete for each Anchorage batch data diskette.

REGION: _____

YEAR : _____

Disk	Date Received From Area Office	Date Mailed to Juneau	Juneau Error Listing		Anchorage	Comments
			Errors Present	Date Error Listing Received	Date Errors Corrected and Error Listing mailed to Juneau	

Appendix Figure D-3. The logform used by Anchorage staff to record the arrival of diskettes from area offices and error listings after transfer from Juneau.

APPENDIX E. FILE DEFINITIONS FOR THE AYK FISH TICKET SYSTEM

==== List of AKY Fish Ticket System Files and Definitions ====

The AYK fish ticket system incorporates a number of parameter and data files. The purpose and structure of each of these files is presented in this appendix section. Reference should be made to the program listings for examples of FIELD or INPUT statements used to access these files.

Filename: HEADER .PRM

Type: Sequential, ASCII, Created by PARAM.BAS.

Purpose: Used by nearly every program in the fish ticket system, to define the management area name, area code letter and total number of fishing districts in the area. Also defines for each district the number of statistical areas and corresponding parameter and data files associated with that district.

Length: 1 record for each fishing district.

Item	Record Layout Var Name	Example	Maximum Field Length
Fishing District No.	DIST$	1	1
Year of fishing season	YEAR$	83	2
Region	REGION$	1	1
AYK Area Code	AREA.CODE$	Y	1
Area Name	AREA$	Lower Yukon	15
Batch File Name	BID$	BATCHY1.DTA	14
Master Fish Ticket File Name	DATA.FIL$	FISH-Y1.83	14
Dist. Catch stat file	CATCH.FIL$	CATCH-Y1.83	14
Dist. Processor production file	PROC.FIL$	PROC-Y1.83	14
Dist. Statistical areas	STAT.FIL$	STAT-Y1.PRM	14
Dist. fishing dates	DATE.FIL$	DATE-Y1.PRM	14

Lengths are variable

-Continued-

Appendix E. File definitions for the AYK fish ticket system.

Filename: STAT-ad .PRM

Type: Sequential,ASCII,Created by PARAM.BAS

Purpose: To define to the system the approprate statistical areas in district "d" of management area "a".

Length: As many records as statistical areas in the district.

Item	Record Layout Var Name	Example	Maximum Field Length
Total number of stat areas in dist.	NO.STAT$	8	1
5 digit stat area code	STAT.AREA$	33411	5

Lengths are variable

-Continued-

Appendix E. File definitions for the AYK fish ticket system (continued).

Filename: GEAR .PRM

Type: Sequential, ASCII, Created by PARAM.BAS.

Purpose: To define to the system the gear types and codes for the area.

Length: As many records as gear types

Item	Record Layout Var Name	Example	Maximum Field Length
Gear type name	GEAR$	Set gill net	10
Gear Code	GEAR.CODE$	04	2
			Lengths are variable

-Continued-

Appendix E. File definitions for the AYK fish ticket system (continued).

Filename: BATCHad.DTA

Type: Sequential, ASCII, Created by DataStar.

Purpose: This is the format of the 200 fish ticket batch files that are created through DataStar. This file is in the format required for transfer to the state wide computer system. It is the primary data file that is created from the data entry of original fish ticket data. Note that in this file species are identified by a leading species code for a maximum of 5 species on one fish ticket.

Length: Generally 200 records but may be variable, dependant upon the number of fish tickets that come in for a given fishing period.

Item	Record Layout — Var Name	Example	Maximum Field Length
Year	YEAR$	83	2
Region	REGION$	1	1
Management Area	MAN.AREA$	Y	1
Batch Number	BATCH$	001	3
Stamped Fish Ticket Number	TK.NO$	800001	6
CFEC Permit Number	CFEC.NO$	S04Y12345K	11
Permit Year	PERM.YR$	82	2
Last Name	L.NAME$	Smith	6
ADFG Vessel Number	VES.NO$	12345	5
Processor Code	PROC$	F2345	5
Date as MMDD	DATE$	0601	4
Statistical Area Code	STAT$	33411	5
Gear Code	GEAR$	04	2
Fishery Code	FISH.CODE$	1	1
Period Code	PER.CODE$	1	2
AYK Season Code	SEA.CODE$	1	1
Species Code for Species 1.	SC1$	410	3
No. of Fish Species 1.	F1$	10	6
Pounds of Fish Species 1.	F1W$	250	7
Value of Species 1.	V1$	2500	7
Species Code for Species 2.	SC2$	420	3
No. of Fish Species 2.	F2$	10	6
Pounds of Fish Species 2.	F2W$	75	7
Value of Species 2.	V2$	750	7
Species Code for Species 3.	SC3$	430	3
No. of Fish Species 3.	F3$	10	6
Pounds of Fish Species 3.	F3W$	85	7
Value of Species 3.	V3$	850	7
Species Code for Species 4.	SC4$	440	3
No. of Fish Species 4.	F4$	10	6
Pounds of Fish Species 4.	F4W$	250	7
Value of Species 4.	V4$	2500	7
Species Code for Species 5.	SC5$	450	3
No. of Fish Species 5.	F5$	10	6
Pounds of Fish Species 5.	F5W$	350	7
Value for Species 5.	V5$	3500	7

-Continued-

variable

Appendix E. File definitions for the AYK fish ticket system (continued).

Filename: DATEad .DTA

Type: Sequential, ASCII, Created by DataStar.

Purpose: To define to the system valid fishing dates, fishing times, period codes and season codes for district "d" in area "a". This file is created with DATASTAR and is accessed at the time of fish ticket data entry, and must be accompanied by it's corresponding NDX file.

Length: One record for each calendar fishing date.

Item	Record Layout Var Name	Example	Maximum Field Length
AYK Season Code	SEA.CODE$	1	1
Period Number	PER.NO$	1	2
Month and Day	MON.DAY$	0601	4
Fishing Hours That Day	HOURS$	18	2

Lengths are variable

-Continued-

Appendix E. File definitions for the AYK fish ticket system (continued).

Filename: PROC .DTA

Type: Sequential, ASCII, Created by DataStar.

Purpose: To define to the system the processor names and code numbers for the area defined in HEADER.PRM.

Length: As many records as processors in the area. Note maximum is set by the first field of the file, file does not have to contain this many records, but may not contain more.

Item	Record Layout Var Name	Example	Maximum Field Length
Total number of procs. in area	TOT.PROC$	15	2
Processor Name	PROC$	Bering Sea Fisheries	15
Processor Code	PROC.CODE$	F2345	5

Lengths are variable

-Continued-

Appendix E. File definitions for the AYK fish ticket system (continued).

Filename: SPECIES .DTA

Type: Sequential, ASCII, Created by DATASTAR.

Purpose: To define to the system the fish species, and species codes approprate to the area. Also to establish minimum and maximum average weights and maximum catch that are acceptable for the error check program EDIT.BAS.

Length: Six records

Item	Record Layout Var Name	Example	Maximum Field Length
Species Name	SPECIE$	Chinook	7
Species Code	SP.CODE$	410	3
Min. acceptable ave. weight	MIN.WT$	2	2
Max. acceptable ave. weight	MAX.WT$	90	2
Max. catch per fish ticket	MAX.CAT$	200	3

Lengths are variable

-Continued-

Appendix E. File definitions for the AYK fish ticket system (continued).

Filename: FISH-ad .yy

Type: Random Access, Binary, Fixed record length = 85, Created by APPEND subroutine of EDIT.BAS

Purpose: This is the master fish ticket data file that stores the fish tickets for district "d" in area "a" for the year "yy". Batch files created with DataStar are condensed and appended to this data file through the APPEND subroutine of EDIT.BAS. This format is condensed somewhat from the BATCHad.DTA format, however species are still identified by a leading species code for a maximum of five per ticket.

Length: There is record for each fish ticket in the file, plus the first record of the file indicates the total number of tickets in the file (in the TIC.NO$ position). Thus if there are 5000 tickets in the file there will be 5001 records.

Item	Record Layout Var Name	Example	Maximum[1] Field Length
Stamped Fish Ticket Number	TK.NO$	800001	4
CFEC Permit Number	CFEC.NO$	S04Y12345K	11
ADFG Vessel Number	VES.NO$	12345	4
Processor Code	PROC$	F2345	5
Date as MMDD	DATE$	0601	2
Statistical Area Code	STAT$	33411	4
Period Code	PER.CODE$	1	2
AYK Season Code	SEA.CODE$	1	1
Species Code No. 1	S1$	410	2
No. of Fish Species 1.	F1$	10	4
Pounds of Fish Species 1.	F1W$	250	4
Species Code No. 2	S2$	420	2
No. of Fish Species 2.	F2$	10	4
Pounds of Fish Species 2.	F2W$	75	4
Species Code No. 3	S3$	430	2
No. of Fish Species 3.	F3$	10	4
Pounds of Fish Species 3.	F3W$	85	4
Species Code No. 4	S4$	440	2
No. of Fish Species 4.	F4$	10	4
Pounds of Fish Species 4.	F4W$	250	4
Species Code No. 5	S5$	450	2
No. of Fish Species 5.	F5$	10	4
Pounds of Fish Species 5.	F5W$	350	4
	-Continued-		85

[1] Note: All variables are written as string variables using a BASIC LSET command where integer variables require two bytes, single precision four bytes, and double precision eight bytes.

Appendix E. File definitions for the AYK fish ticket system (continued).

Filename: CATCH-ad.yy

Type: Random Access, Binary, Fixed record length = 118, Created by CATCH.COM.

Purpose: To store period commercial catch statistics such as catch and effort by statistical area for district "d" of area "a" for the year "yy". This file is generated by CATCH.BAS or CATCH.COM. Note that the file structure is different from BATCHad and FISH-ad files in that the species are now defined positionally in the order of the species parameter file (SPECIES.DTA). Also the file can contain data on up to six species.

Length: For each fishing period there is one record for each statistical area in the district, plus an additional record that contains the totals for the district. Thus if there are 8 statistical areas in the district, there would be 9 records for each fishing period. If the file contained data for 3 fishing periods it would have 9 x 3 or 27 total records.

Item	Record Layout Var Name	Example	Maximum[1] Field Length
Period Number	PER$	1	2
Beginning Date of Period	BD$	0602	5
Ending Date of Period	ED$	0603	5
Total Number of Fishing Hours	HRS$	24	2
Statistical Area Code	STAT$	33411	4
Number of Permits	PERM$	25	4
No. of Fish Species 1.	F1$	10	8
Pounds of Fish Species 1.	F1W$	250	8
No. of Fish Species 2.	F2$	10	8
Pounds of Fish Species 2.	F2W$	75	8
No. of Fish Species 3.	F3$	10	8
Pounds of Fish Species 3.	F3W$	85	8
No. of Fish Species 4.	F4$	10	8
Pounds of Fish Species 4.	F4W$	250	8
No. of Fish Species 5.	F5$	10	8
Pounds of Fish Species 5.	F5W$	350	8
No. of Fish Species 6.	F6$	10	8
Pounds of Fish Species 6.	F6W$	350	8
	-Continued-		118

[1] Note: All variables are written as string variables using a BASIC LSET command where integer variables require two bytes, single precision four bytes, and double precision eight bytes.

Appendix E. File definitions for the AYK fish ticket system (continued)

Filename: PROC-ad .yy

Type: Random Access, Binary, Fixed record length = 115

Purpose: To store period processor production for district "d" of area "a" for the year "yy". This file is calculated by CATCH.COM. The file structure is similar to CATCHad.yy. Species are identified by their position in the file.

Length: For each fishing period there is one record for each processor in the area. Thus if there are 15 processors in the area there will be 15 records for each fishing period. If the file contained data for 3 fishing periods it would have 3x15 or 45 total records.

Item	Record Layout Var Name	Example	Maximum[1] Field Length
Period Number	PER$	1	2
Beginning Date of Period	BD$	0602	5
Ending Date of Period	ED$	0603	5
Total Number of Fishing Hours	HRS$	24	2
Processor Code	PROC$	F2345	5
No. of Fish Species 1.	F1$	10	8
Pounds of Fish Species 1.	F1W$	250	8
No. of Fish Species 2.	F2$	10	8
Pounds of Fish Species 2.	F2W$	75	8
No. of Fish Species 3.	F3$	10	8
Pounds of Fish Species 3.	F3W$	85	8
No. of Fish Species 4.	F4$	10	8
Pounds of Fish Species 4.	F4W$	250	8
No. of Fish Species 5.	F5$	10	8
Pounds of Fish Species 5.	F5W$	350	8
No. of Fish Species 6.	F5$	10	8
Pounds of Fish Species 6.	F5W$	350	8
			115

-Continued-

[1] Note: All variables are written as string variables using a BASIC LSET command where integer variables require two bytes, single precision four bytes, and double precision eight bytes.

Appendix E. File definitions for the AYK fish ticket system (continued).

APPENDIX F. COMPUTER SERVICES INFORMATION

APPENDIX F. COMPUTER SERVICES INFORMATION

The following is a list of special ADF&G and CFEC numbers to be assigned for tickets containing hatchery, test fishing, confiscated catch, unlicensed fisherman or unknown fisherman.

Type: HATCHERY

ADFG RANGE: 99916-99935

CFEC: Use each fishermen's CFEC number

Assign a unique ADFG number for each hatchery recording catch in the management area. Use the same ADFG for the same hatchery each year. Use the CFEC recorded on the ticket.

Type: TEST FISHING

ADFG RANGE: 99941-99949

CFEC: Z99B10983U

Assign a unique ADFG number for each test site in the management area. Use the same ADFG for the same site each year. Use the CFEC number shown here.

Type: CONFISCATED

ADFG: 99950

CFEC: Z99B10983U

Use this ADFG number for all confiscated fish in the management area. If the fisherman has a valid CFEC permit use it, otherwise use the CFEC shown here.

Type: UNLICENSED FISHERMAN

ADFG: 99960

CFEC: Leave blank

Landing for fisherman who does not hold a valid permit for the fishery.

Type: UNKNOWN FISHERMAN

ADFG: 99970

CFEC: Sgga5555A Where gg is the gear code of your area 04 or 08 and a is your management area.

Landing for fisherman who cannot be identified because the ticket is unsigned and no permit number is available.

Type: UNIDENTIFIED ADFG NUMBER

ADFG: 99990

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