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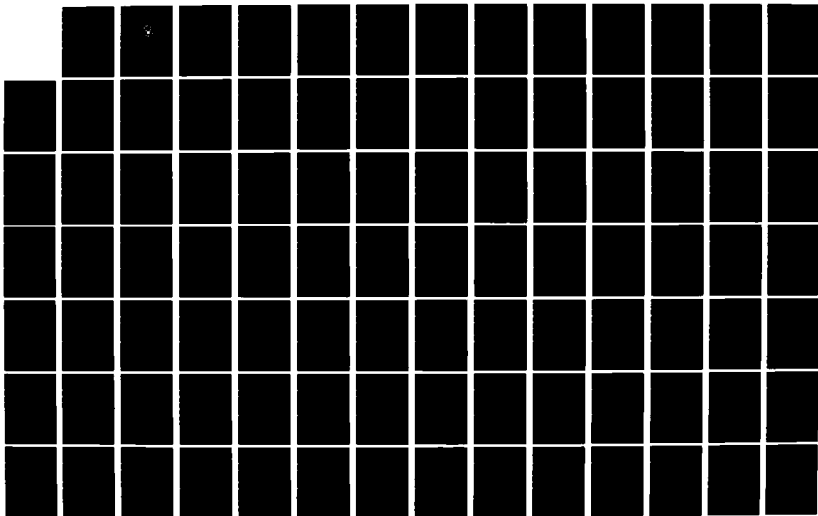
AN ANALYSIS OF THE EFFECT OF PERSONNEL TURBULENCE ON
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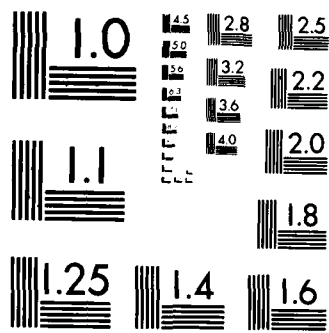
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THESIS

AN ANALYSIS OF THE EFFECT OF PERSONNEL
TURBULENCE ON THE PERFORMANCE OF
OPERATIONAL UNITS

by

Wayne Ronald Reeves

December 1982

Thesis Advisor:

Richard S. Elster

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An Analysis of the Effect of Personnel Turbulence
on the Performance of Operational Units

by

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Lieutenant Commander, United States Navy
B.S., Monmouth College, 1971

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the


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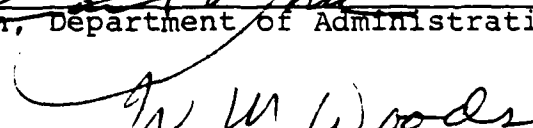


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ABSTRACT

The purpose of this thesis is to analyze the effect of personnel turnover on the performance of operational Navy units. The Survival Tracking File developed by NPRDC is utilized to determine the rate of turnover aboard a sample of 40 ships. Descriptive data such as length-of-service, years of education, age, etc., are selected to provide demographic information for the people involved in the turnover. Summary CASREP maintenance data were converted to total maintenance downtime per quarter for each unit and used as the measure of ship performance. The relationship between downtime and turnover was examined at the global or aggregate level and at the individual ship level. The data were unable to support any correlation between turnover and ship performance at either level. In addition no relationship was found within classes of ships when grouped by age, type, or size. Descriptive demographic statistics, relative to the personnel involved in the turnover, are provided.

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I. INTRODUCTION

A. PROBLEM

The purpose of this thesis is to examine the relationship between personnel turnover/turbulence and unit performance. The emphasis is not on the cause of the turbulence/turnover, but rather the effect on the unit, and what relationships may exist between the personal characteristics of the individuals involved and the organization's productivity.

Currently, turnover/turbulence receives an enormous amount of attention by personnel of all echelons within the Navy. The individual sailor who actually bears the burden is acutely aware of the effects on him, his family and his career. It is extremely difficult for him to own a home or establish any family stability. Unit commanding officers are deeply involved in the detailing process, attempting to insure they can meet their operational missions, while getting the "right man" in the "right job." Fleet Commanders must insure that today's scarce personnel resources are effectively managed throughout their commands. Lastly, the Navy must recruit enough personnel to meet the shortfalls in endstrengths created by a decrease or growth in the number of personnel, and must demand proper management of these personnel to maintain the desired skill/age mix.

The operational unit is the key to the accomplishment of the Navy's mission. Too much personnel turnover has the potential to affect a unit's performance as experienced sailors are replaced with new personnel. The increased demand for training combined with the influx of new personnel may result in the degradation of the unit's ability to perform its mission. Just how much turnover affects a unit's performance has yet to be quantified.

This raises the issue of an adequate measure of effectiveness. Without a measure, many of today's current policies can neither be analyzed nor be effectively designed. This is an issue that must be resolved by the upper levels of Naval management. Assuming an adequate measure of operational effectiveness exists, it seems theoretically possible to use it in the analysis of the effects of personnel turnover/turbulence. From this analysis, current and/or future policy can be judged, and models generated with which a unit's "behavior" could be predicted given different personnel policies.

B. BACKGROUND

As a manager, every officer is faced with accomplishing assigned tasks in spite of the personnel turbulence his part of the unit experiences. For the purposes of this thesis, personnel turbulence is hypothesized to influence the performance or output of individual members of a work group

or unit. Turbulence is defined to include those factors internal and external to both the individual and the organization that affect performance. Inherent within turbulence are events such as changes in type of work, work responsibilities, living conditions, work hours and conditions and place of residence. Table I contains an expanded listing of potentially significant factors or "life changes," all of which have been shown to affect an individual's performance.

Dr. Robert Alkov, (Alkov, 1975), working for the Naval Safety Center, examined the relationships between life changes, accident behavior, and performance. The majority of accident behavior can be explained by personal stress, produced either internally or externally to the individual. Dr. Alkov examined potentially stressful life events, demonstrated by Dr. Thomas H. Holmes to be correlated with illnesses, and attempted to apply them to accident behavior. The events were ranked and arbitrarily weighted relative to the amount of adaptive or coping behavior required by an individual: the greater amount of coping behavior required, the more significant the impact on the person's performance. The rankings and weights are also shown in Table I. Dr. Alkov concluded that combinations of life change events can create enough stress so as to adversely affect an individual's performance.

Personnel turnover is the most significant factor of turbulence within a unit. Turnover is the flow of personnel into and out of an organization. Implicit in turnover is

TABLE I
LISTING OF SIGNIFICANT LIFE CHANGE EVENTS
AND THEIR MEAN WEIGHTS

RANK	LIFE EVENT	MEAN VALUE
1	Death of spouse	100
2	Divorce	73
3	Marital status	65
4	Jail term	63
5	Death of close family member	63
6	Personal injury or illness	53
7	Marriage	50
8	Fired at work	47
9	Marital reconciliation	45
10	Retirement	45
11	Changes in family member's health	44
12	Pregnancy	40
13	Sex difficulties	39
14	Gain of new family member	39
15	Business readjustment	39
16	Change in financial state	38
17	Death of close friend	36
18	Change to different line of work	36
19	Change in no. arguments with spouse	35
20	Mortgage over \$10,000	31
21	Foreclosure of mortgage or loan	30
22	Change in work responsibilities	29
23	Son or daughter leaving home	29
24	Trouble with in-laws	28
25	Outstanding personal achievement	28
26	Wife begins or stops work	26
27	Begin or end school	26
28	Change in living conditions	25
29	Revision of personal habits	24
30	Trouble with boss	23
31	Change in work hours, conditions	20
32	Change in residence	20
33	Change in schools	20
34	Change in recreation	19
35	Change in church activities	19
36	Change in social activities	18
37	Mortgage or loan under \$10,000	17
38	Change in sleeping habits	16
39	Change in no. of family get-togethers	15
40	Change in eating habits	15
41	Vacation	13
42	Christmas	12
43	Minor violation of the law	11

Note: The mean values are the weights of the relative amount of coping behavior required by the individual.

the creation of many of the "life changes" listed in Table I as personnel are assigned new tasks or work schedules to facilitate the arrival of new personnel and the departure of the "old salts."

As discussed above there is an empirical relationship between personnel turnover and turbulence and organizational performance or productivity. James Amendiola (1981) examined personnel turbulence relative to its effect on the management of an Army training program. Defining turbulence as job changes within the unit and then analyzing different unit history files, he was able to establish from the data a two to one ratio between turbulence and the rate of personnel turnover experienced. This ratio was shown to be positively correlated to the output (training accomplished) of the units. In another study, Victor Kendall (1978) in examining the utilization of air weapons controllers, observed that unit readiness was inversely related to the amount of personnel turbulence the unit experienced. Although recognizing the problem, he was unable to measure the relationship.

It is important to note that possibly not all aspects of personnel turbulence are negative. The very nature of the Navy's manpower system insures that there will be continual personnel movement. Yet the Navy still manages to meet its mission objectives and get the job done. Also, because of turbulence, the Navy is not a stagnant organization. It is continually exposed to new concepts associated with the

influx of new personnel and remains flexible and adaptable to the new directions these ideas foster.

Binkin and Kyriakopoulos(1979) discuss turnover in regards to military manning. They highlight the social arguments that "large personnel turnover characterizes a youthful military force." They examine the transition of the military occupational structure from low skilled mostly "physical" jobs to jobs requiring highly skilled specialists, questioning the relationship among age, experience and productivity.

"... the military's preoccupation with youthfulness at the expense of experience may not be providing the nation with the most effective armed forces possible at current budgetary levels."

The issue, therefore, is not personnel turnover/turbulence itself, but rather the effect turbulence has on the unit's ability to accomplish its mission.

Much of the literature written to date asserts that an effective unit is one that can accomplish its given mission. There are various administrative attempts to measure unit effectiveness utilized throughout the fleet, i.e., Operational Readiness Inspections (ORI); Administrative, Material and Training Inspections (ADMAT); Navy Technical Proficiency Inspections (NTPI); Propulsion Examining Board (PEB) inspections; and Command Inspections (CI), to name a few of the major ones. All of these measures, although attempting to measure specific quantifiable items, result in a rather subjective "feeling" for the unit's effectiveness or operational readiness.

Perhaps a better measure of a unit's effectiveness would be the productivity of its work force. If we had a measure of the productivity of human capital we could begin to make some estimates and decisions relative to the optimal mix of men and machines, number/types of ships, proper balance of the rates, etc.. Again, however, there exists the problem of defining unit productivity and arriving at an appropriate measurement criterion. Stanley A. Horowitz and Allan Sherman of the Center for Naval Analyses address these problems in their study "A Direct Measure of the Relationship Between Human Capital and Productivity."

Rather than use earnings as an indirect measure of productivity they examined the personal characteristics of the unit's workforce. Since the Navy is under a Congressionally mandated pay system which effectively eliminates any tangible relationship to productivity, they tried to associate "output at the work group level with the characteristics of the people in the group." They decided to utilize the Navy's maintenance casualty reporting system in selected subsystems of Navy ships and to use this as an indication of the production of output. They viewed keeping a ship in good operational condition as a production process with men as one of the inputs. The measure of downtime is the "number of casualties a ship has had multiplied by the average time it took to fix them," and the reduction of downtime implies an increase in productivity. From their analysis they concluded that the general condition of the

selected shipboard subsystems was affected by the experience and paygrade of the personnel maintaining them and the age of the equipment.

Alan Marcus (1982) repeated much of Horowitz and Sherman's work utilizing Navy aviation squadron performance as his measure of productivity. He found that crew characteristics were related to performance and utilized general production function forms to analyze the relative productivity and substitutability of personnel. The results of his efforts support the conclusions of Horowitz and Sherman that productivity is significantly affected by the experience and paygrade of the workforce.

Personnel turnover/turbulence is also a factor in the performance of civilian corporations. For the civilian manager, the issue is one of finding and keeping good personnel. The ability to set work hours, alter work conditions, set pay scales, etc., are some of the tools the organization has available to control personnel turnover. There is a considerable body of literature dealing with why personnel leave their jobs, focusing on personnel turnover as a process and attempting prediction of employee performance based on selected individual variables. Swenson (1982), discusses the different theories in light of their usefulness in analysis of the impact various recruiting sources have on the future outcomes of an individual's performance, and he observes that the models can be seen to be essentially extensions of the March and Simon 1958 ease-of-movement model. Thomas Fogec developed formulas

to predict employee performance utilizing the variables of age, length of service, education, sex, and race. He found that variables that affected the "maturing" process of the individual contributed most significantly to success on the job (Fogec, 1976).

These issues relate to attrition and retention within the military system, issues that continue to receive an enormous amount of research effort. Turnover/turbulence problems associated with retention and attrition are compounded by the sea/shore rotation policy and current retirement system. The ability/requirement to retire at 20 years of service may keep the military young and dynamic, but it also creates a large drain of experienced personnel who could still be productive. Most of the research, whether oriented to the military system or civilian organizations, has focused on the individual and the variables that affect the career decisions made. Very little research has focused on the impact on organizational productivity resulting from turnover and turbulence, nor on the demographics of the personnel involved.

C. PURPOSE

The objectives of this thesis are to:

1. explore any relationship that may exist between turnover and some measure of productivity, and if a relationship is found to exist, examine relationships between productivity and the personnel involved in the turnover;

2. examine the amount of turnover a unit experiences over time; and
3. examine some biographic and demographic information from those personnel involved in the turnover.

The study will examine operational Naval ships and their assigned personnel from the first quarter of fiscal year 1978 to the second quarter of fiscal year 1982. Only information relative to the flow of personnel into or out of a given unit will be analyzed with the assumption that the rate of personnel turnover is directly associated with a units internal turbulence.

II. DATA

A. DATA BASES

Three data bases were utilized in this effort. The first was a Ship Class Unit Identification Code File (SCUIC) initially prepared by Carl G. Carlson of the Naval Postgraduate School in 1981. The data base was constructed by Carlson to facilitate his analysis of first-term enlisted attrition from the Navy (Carlson, 1981). The data are arranged by unit identification code or UIC for each ship in the Navy. Along with the UIC, the ships are identified by hull number, name and homeport location. Additionally, data regarding type activity, ship type, class, subclass, size (based on personnel), age (relative to date of commissioning), type of engineering plant, nuclear capable status, and homeport location are included. A complete description of the data found in the ship data bank can be found in Appendix A.

The second data bank utilized was the Enlisted Survival Tracking File (STF) developed by the Navy Personnel Research and Development Center, and NMPC-164 (then Pers 35-b). The STF is a longitudinal data base of all Navy enlisted personnel since the fourth quarter of 1977. Data are extracted from the end-of-quarter Enlisted Master Record (EMR) for inclusion in the STF. The STF is a sequence of records that represent an individual's history in quarterly intervals. A complete

listing of the data elements found in the STF can be found in Appendix B.

The third data base utilized was an extract from the Consolidated Casualty Reporting System (CASREP). A statistical summary report was provided by the Navy Ships Parts Control Center (SPCC), Mechanicsburg, PA. The CASREP system is designed to provide timely reporting of equipment failures and the effect of these failures on the capability of the unit to perform its assigned missions. One of the products of the system is the computation of downtime hours. Downtime is computed for corrected casualties as follows:

Supply - the number of hours the equipment was down while awaiting parts.

Maintenance - the number of hours the equipment was was down due solely to maintenance. The assumption is that time not awaiting parts is spent on maintenance.

Total - the total number of hours the equipment was inoperative. Total downtime equals supply hours plus maintenance hours. If this total is less than twenty-four hours it is reported as 0.

The summary report number 4400.28-126 was provided for the fiscal year 1980 to second quarter 1982. A quarterly maintenance downtime data base was created by subtracting downtime awaiting parts (DWP) from total corrected downtime. A complete description of this data base can be found in Appendix C.

B. DATA SELECTION: SHIP

The Ship Class Unit Identification Code (SCUIC) file developed by Carlson was utilized to select ships for study in this effort. In order to gain an appreciation in specific as well as broad terms, it was decided to examine representatives from each major ship class. Additionally, it was decided to examine representative ships categorized according to their crew complement into small, medium, large, extra large, and according to their age. For a class of ship to be considered for analysis, there had to be sufficient inventory of ships in the class to have homeports on the east and west coast, as a minimum. Representative ships from each class were selected by random utilizing a random-number generator.

The ships were then categorized as discussed above, and additional ships were selected at random to represent homeports, either east or west coasts, Hawaii, or overseas, for each subcategory. This selection process resulted in 44 ships of interest, which are listed in Appendix D. These 44 ships were checked to insure that all were active during the period of this study. The UIC's of these ships were used to select individuals from the STF.

C. DATA SELECTION: PERSONNEL

The STF file currently consists of over eight million records, which creates a significant data processing problem. To alleviate this problem, and to subset the STF into files

that were more manageable, two Fortran programs were created. The first is based on a program developed by Carlson (1981). The purpose of the program is to determine when an individual reports to or leaves from a ship of interest, and, in order to determine turnover rates, the program selects all individuals who were attached to the ship. In cross-checking the outputs of this program, it was discovered that the STF contains a significant number of typographical errors in the current onboard UIC. The most common error found was a 9 in the first digit of the current onboard UIC. UIC's beginning with nines are allocated to miscellaneous support groups such as civilian contractors, supply processing points, etc., locations normally not manned with enlisted personnel. Further examination revealed that if a nine was found in the first digit of the UIC the last four digits usually matched the last four digits of the UIC either preceding or following it, indicating a typographical error and not a change in the UIC. Additionally, the past actual UIC field did not change appropriately, which indicates that the nine was in fact an error. Therefore, a subroutine was added to the program to eliminate this particular inconsistency.

The program operates in the following manner:

The information from the SCUIC file for the 44 ships of interest is read into a matrix called 'UIC.' The first record from the STF is read into a vector 'A' to be utilized in determining when an individual's record ends. The assumption

is made that, a change in the social security account number (SSAN) indicates the beginning of a new person's record. The record reading subroutine (RDREC) is then entered with a vector 'A' containing the first record. The subroutine reads in a record and compares the SSAN with the SSAN in vector 'A'. If they match, the record is put into a matrix 'B' which will contain all of the records for the individual. This process continues until the SSAN's don't match at which time the new SSAN and record are put into the vector 'A'. The program returns from the subroutine with the individual's entire STF file in matrix 'B', the number of records of the individual (rows of 'B'), and the first record of the next person in vector 'A'.

The next operation performed is to test the present onboard UIC's for the typographical errors discussed above. This is necessary because of the method of selection discussed below. This test only examines the UIC variable for a nine in the first digit. If a nine is located as the first digit, the last four digits are compared with those in the UIC that immediately proceeds or follows. If a match is found, the UIC with the nine is changed to match. This process is repeated for every record in matrix 'B', thereby returning a "corrected" matrix 'B' to the main program.

Matrix 'B' next enters a subroutine that creates a subfile of all personnel attached to any ship of interest. The onboard UIC of each record is compared to the UIC's of

all 44 ships. If a match is found, the information from the record, combined with the information from the ship, is merged and written in a subfile called SHIPSRTA.DATA.

Matrix 'B' is returned to the main program and is sent to the subroutine called OUTPUT. This subroutine examines the onboard UIC's contained in matrix 'B', searching for changes. Since the STF is updated on a quarterly basis and a new line is prepared when a STF variable changes, the line containing a different UIC from the preceding one must have information relative to the individual when he/she reported to the new unit. Therefore, in order to examine this information each record where a UIC changes is written into a new matrix 'C'. The search for changes continues for all records contained in matrix 'B'. After all of matrix 'B' is examined, matrix 'C' contains only those records where the UIC changed. Matrix 'C' is then compared with the ships of interest to determine whether or not any of the ships were involved. If a match is found, that record is merged with the SCUIC file and written to create a data set named REPORTED.DATA. Table II shows the variables of interest that were identified from the STF for use in this research project.

The STF is so large that many data fields are missing or contain errors. Another significant problem occurs with the past actual UIC data element. The file is constructed such that this element should reflect the last UIC the individual was attached to prior to assignment to the UIC reflected in

TABLE II
 VARIABLES EXTRACTED FROM STF

DATA ELEMENT	LENGTH
Social Security Number	9
As-of-Date Fiscal Year	2
As-of-Date Quarter	1
As-of-Date Count	2
Sex	1
Race	1
Ethnic Group	1
Date of Birth	4
Armed Forces Qualification Test	4
Education Years	2
Present Rate Code	4
Present Pay Grade	1
ADSD	4
Onboard Actual UIC	5
Past Actual UIC	5

the current actual UIC element. However, whenever the individual involved deserts or is hospitalized, the UIC elements do not keep track of all the person's movement. It is suspected that this is due to the nature of the original data source, the quarterly EMR. The changes in UIC's may be reflected in the EMR, but only the last transaction will be reflected in the quarterly report and subsequently the STF. There were enough cases where this problem occurred that the print format creating DEPARTED.DATA was modified to reflect the UIC that the individual should have left. This was possible due to the construction of matrix 'C' in the output subroutine. This matrix contains all records where a change in the UIC was found. Since the file is processed sequentially in time, the first record in matrix 'C' that matches the UIC

of ships of interest must reflect when the individual reported to the ship. Likewise, the very next record must reflect the information when the individual left the ship, regardless of what UIC is in the field. The format statement merging the STF and SCUIC files places the UIC from SCUIC in the data field of past actual UIC instead of the data from the STF. This insures that personnel data of those leaving ships can be analyzed correctly. This process is repeated for the entire STF resulting in three data sets: REPORTED.DATA, DEPARTED.DATA, and SHIPSTRA.DATA. A listing of the elements contained in these data sets is contained in Appendix E, and a program listing is provided in Appendix F.

The STF contains a significant amount of useful information. The Fortran program described above will allow the extraction of that information with a minimum of modification. The merging of selected variables with other types of data, i.e., Ship Class Unit Identification Code file, is easily handled by the formatting contained within the program. It is recommended, however, because of the large number of potential "errors" contained in the STF, that a software package that is tolerant of alphanumeric be utilized for the analysis, i.e., the Statistical Analysis System (SAS).

A second Fortran program was developed to convert the data contained in the SHIPSRTA.DATA subfile into records with discrete fiscal year and quarter information. This was necessary to enable time-line analysis of the personnel data

relative to the given ships of interest. The STF is constructed such that any change in a data element results in the addition of a new record. If no data elements change, the count variable is indexed to indicate the number of quarters for which that particular record is valid. For example, 7745, representing fiscal year 1977, fourth quarter and count equal to 5, is interpreted to mean that the data contained in that record is valid for 5 quarters, beginning at the fiscal year and quarter indicated. In this example the data are valid for 4th quarter, fiscal year 1977, and quarters 1 through 4 of fiscal year 1978. The Fortran program performs in the following manner:

A record is read, and if the variable count is equal to one, the entire record is written to the new data subfile named SHIPSRTA.QUARTER.DATA. If the count is greater than one, a loop is entered that is repeated a number of times equal to the count. While in this loop the record is converted to discrete fiscal year and quarters and written to the SHIPSRTA.QUARTER.DATA.

An individual's length of service (LOS) and age were felt to be major factors relative to the impact he/she had on the effects of personnel turbulence. The STF only contained information concerning the individual's birth data (year and month) and active duty start date (ADSD). Gardner (1980) developed the algorithm used by this program to convert birthdate and active duty start date to age and LOS in months. Appendix G contains the listing for this program.

D. CONSTRAINTS

The major constraint of this effort has been the STF data. Because of the size of the file, careful consideration must be given to the capabilities of the computer system used to process the data. For example, the storage required to establish an SAS system file of REPORTED.DATA and DEPARTED.DATA was in excess of 160 cylinders, where each cylinder hold 19 tracks or 3064 images. Additionally, the problems discussed above, i.e., typographical errors and omissions, limited data elements available for use as selection criteria. The data elements and codes contained in the STF are based upon standard Navy reporting systems, but many require special manipulation to be useful in this type of research.

III. ANALYSIS

A. MODEL

To place the preceding discussion into a conceptual framework the relationships displayed in Figures 1 and 2 were developed.

Figure 1 displays the hypothetical relationship of downtime to personnel and equipment. Although somewhat self-evident, it is provided to support the model contained in Figure 2. Turnover, operational cycle and size are considered to be aspects of the personnel variable and ship class, size, and subclass define aspects of the equipment variable.

Figure 2 describes the hypothesized functional relationship of downtime with the unit's operational cycle (OPCYCLE), size, rate of turnover, age and class. The interaction shown between OPCYCLE and turnover is provided to indicate the relationship of turnover to the ship's operational cycle. For example, it is common practice for a ship to detach personnel with less than three months remaining until their projected rotation date (PRD), prior to deployment. Likewise there is a concurrent influx of personnel to fill the billets created by these early detachments. It could be argued that turnover could be used as a surrogate indicator of the ship's operational cycle; however, its usefulness is marginal. The intensity of operations, i.e., mission performed, hours underway,

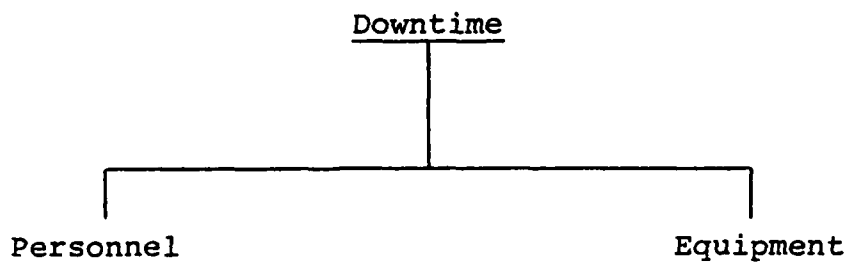


Figure 1. Model of Relationship Between Downtime and Personnel/Equipment

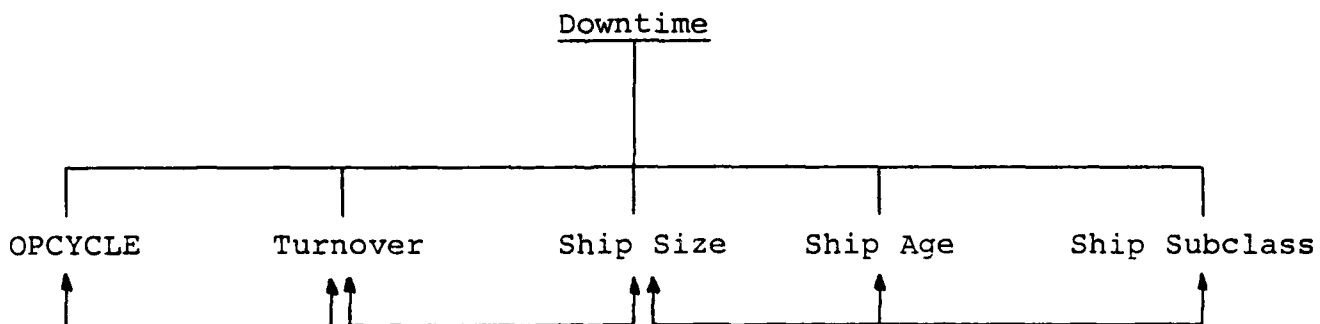


Figure 2. Model of Hypothesized Functional Relationships

etc., would not be described, and there would be inherent time lead/lag problems relative to the ship's preparation and stand-down from deployment.

The interaction depicted between ship class, age, and size describes the dependence of the ship's age and size on class. If one knows the subclass of the unit, the approximate type, size and age are also known. For example, given that the ship is a Midway-class carrier implies that the ship type is carrier, size is extra large in terms of personnel, and the ship probably was constructed in the 1940's. However, given that the ship was a Nimitz-class carrier would imply the same type and size information, but that the ship was constructed in the 1970's.

B. ANALYSIS

The three data sets created from the STF file, SHIPSRTA.DATA, REPORTED.DATA, and DEPARTED.DATA were utilized to determine the amount of turnover, by fiscal year and quarter, for each ship of the sample. As defined earlier, turnover is the flow of personnel through a given unit. It is important to realize that different measures can be applied to this concept. For example, NPRDC is currently monitoring personnel turnover throughout the Navy utilizing the ratio of attrition to mean endstrength as their measure. Alternative measures could include: (1) percentage of net change to unit, computed as the ratio of reporters minus departures to mean endstrength; (2) percentage of gain (loss) to the unit computed as the

ratio of personnel who report (depart) to mean endstrength; or, as utilized in this thesis, (3) percentage of total change to the unit, computed as the total personnel flow, reporters plus departers, relative to the mean endstrength. This particular measure was chosen because it was felt that it better reflected the impact of turnover that each organization faces. Utilization of percentage gain (loss) would only describe half of the picture and use of net change could possibly be misleading. If a unit experienced a complete change in personnel its percentage of net change would equal 0, whereas its total turnover would be 200%. For comparison, Appendix H contains the average yearly amount of turnover and the quarterly amount of turnover for each ship, as well as the average yearly turnover rates by ship type.

The first step of the analysis was to examine the relationship of downtime to turnover for all ships in the sample. A data set was developed that contained information in the form of matched pairs of data points, downtime and turnover rates. The data generation from the STF file was very similar to the repeated measures methodology discussed by Kerlinger and Pedhazer (1973), Namboodiri, et al. (1975), and Cohen and Cohen (1975). Although not a true "repeated measures" experiment, it was necessary to utilize this technique in order to develop enough data points for analysis. What resulted was a data set containing 400 data points (40 ships X 10 quarters). Four ships were eventually deleted from the

original sample due to anomalies in the turnover rates or associated CASREP data.

Since the goal of this thesis is to examine the relationship of downtime to turnover, it was assumed that the data were not time specific. The amount of variance in downtime explained by turnover (R-square), given the above assumptions aggregated for the entire sample was .00897; ($F=.37, p=.54$); effectively zero. This implies that throughout the Navy downtime aboard ships is not affected by personnel turnover. Although CASREP is a "soft" measure of performance, it is significant that no relationship exists in light of an average quarterly turnover rate in excess of 39% for the same period. Given that utilization of CASREP data is plausible, it appears that management of turnover is not a problem at the "macro" level; i.e., upper echelons of command. It is important to note that it is highly probable that both downtime and turnover are related to the ship's operational cycle (time). As discussed earlier large turnover rates can be expected immediately preceding or following a deployment. Downtime also can be seen to be dependent on the unit's operational cycle, i.e., yard periods, or predeployment workups.

Since a relationship between downtime and turnover cannot be inferred at the "macro" level, possible relationships were explored at the individual ship level. Table III contains the resulting Pearson correlation coefficients by ship UIC for the sample. Examination of Table III highlights two interesting

TABLE III
PEARSON CORRELATION COEFFICIENTS

UIC	r	UIC	r
02534	-.10	07351	.12
02538	.44	08808	.19
03128	-.03	08809	.70 *
03129	.00	20012	.44
03341	-.63 *	20050	-.07
03343	.25	20058	.04
03359	.06	20123	.10
03368	.85 **	20143	-.12
04621	-.11	20223	.64 *
04628	.15	20576	.17
04665	-.14	20632	.00
04666	-.19	20642	-.14
04674	.65 *	52198	.34
04689	.74 **	52234	-.52
04698	.10	52686	.31
04951	.00	52699	.00
05604	-.12	52700	.13
05833	-.42	54057	-.50
05836	.40	54064	-.08
05847	-.02	07183	.12

* Significant at the .05 level

** Significant at the .01 level

observations relative to the downtime/turnover relationship at this level. First, in only six of the forty ships was any significant relationship found. These six ships are not related in terms of ship type, ship size, or ship age. There is nothing in the current model that can offer an explanation as to why these particular ships have a statistically significant relationship, other than pure chance. Second, fifteen ships within the sample have coefficients that are contrary to the model's hypothesis, as exemplified by their sign. The negative coefficient implies that the greater the amount of turnover, the better the ship's performance.

In order to examine the questions raised above, it was decided to examine the possible relationship of the above individual Pearson correlation coefficients to the categorical descriptive variables of ship type, class, subclass, size and age. The correlation coefficients were merged with the previously discussed data set to create a data set containing ship categorical information, downtime and turnover data, as well as the associated Pearson coefficients. A complete description of this data set is contained in Appendix I.

An ANOVA procedure and the Duncan multiple range test were performed for each category utilizing the correlation coefficient as the dependent variable. Table IV shows the resulting R-square, F, and probability values.

As shown in Table IV and confirmed by the Duncan tests, there are no downtime/turnover relationships within the various

ship categories. Because the Pearson correlation coefficients were generally small and less than 1.0, it was decided to normalize the coefficients utilizing Fisher's Z transformation of r in order to increase the fidelity of the measures. The following formula was utilized (Cohen, 1975):

$$Z = 1/2 * (\log(1+r) - \log(1-r))$$

The ANOVA procedure was repeated and the results are shown in Table V. Again no relationship within the groups were found. This also was confirmed utilizing the Duncan test.

C. SUMMARY OF DATA ANALYSIS

The Survival Tracking File (STF) was subsetted into three subfiles containing personnel who reported to, departed from, or were assigned to one of the initial forty-four ships of interest. From these files, the quarterly rates of reporting, departing and turnover were computed. It was decided to utilize quarterly mean endstrength in the computation of turnover because derivation of the actual number of personnel onboard during the quarter could not be accurately determined. The endstrengths generated from the SHIPSRTA.DATA file were adjusted to reflect the average onboard during the period. The methodology utilized to construct the subfiles resulted in individuals being "counted" in both the current onboard file and the respective reported/departed file. The assumption that all personnel report or depart on the same day within the quarter, i.e., last day, was not considered valid. Since the

TABLE IV
ANOVA RESULTS BY SHIP GROUPINGS

GROUP	R-SQUARE	F-VALUE	PROB>F
Ship type	.06	.59	.67
Ship class	.47	.63	.84
Ship subclass	.70	.80	.70
Size	.03	.40	.75
Age	.02	.27	.84

TABLE V
ANOVA RESULTS BY SHIP GROUPINGS
(TRANSFORMED DATA)

GROUP	R-SQUARE	F-VALUE	PROB>F
Ship type	.06	.57	.68
Ship class	.52	.75	.74
Ship subclass	.74	.99	.54
Size	.04	.50	.68
Age	.02	.28	.83

average person reporting or departing to a unit could be expected to spend only one-half of the quarter onboard, one half of the quarterly reporter and departer totals were subtracted from the total onboard count to adjust for the double counting of personnel.

A ship-specific data set was formed containing ship categorical variables, downtime and turnover data for the ten periods, and eventually the Pearson correlation coefficient for each ship.

The results of the analysis can be summarized as follows: The current data and associated assumptions utilized in the model do not support the inference of any relationship between ship performance (downtime) and personnel turnover. This is true at the "macro" or sample level as well as the "micro" or individual ship level. Nor are there any relationships present within the various ship-descriptive categories.

Although statistically significant relationships were found in the work accomplished by Horowitz and Sherman (1968), the analysis performed by this thesis doesn't support the expansion of their methodology to the ship level. It may be that the management at the small-work-group level is effective enough to prevent any adverse effects on ship performance from turnover/turbulence. This conclusion is strictly the opinion of the writer and is not supported by the analysis or the information contained in this report. Other possible

explanations revert to the discussions earlier on the suitability of CASREP data as a performance measure. CASREP data is recognized as a "soft" indication of overall ship performance; however, it is the only quantifiable measure that cuts across the entire spectrum of ship performance and effectiveness. For example, CASREP data are provided for equipment in each of the ship's functional areas, engineering and combat systems, as well as support related systems. Other potentially useful measures of performance would be a combination of measures such as ship steaming hours, exercise grades, standardized training/inspection grades, or objective Unit Reporting system information. Utilization of these other measures were beyond the scope of this effort and merit further research.

Another explanation of the lack of correlation between downtime and turnover may be the differences in their coefficients of variation, 120.8 and 30.9 respectively. These differences can be seen to be related to the anomalies found in both the CASREP reporting system and the extraction of the data from the STF file. Both are recognized as less than satisfactory, which is one of the risks of utilizing non-experimental data.

IV. CONCLUSIONS

The primary objective of this thesis was to examine the relationship between personnel turnover/turbulence and ship performance. Ancillary objectives were to: (1) examine the relationship between the personal characteristics of those personnel involved in the turnover and ship performance, and (2) examine characteristics of the personnel relative to the unit's management of the turnover.

The analysis determined that no significant relationship could be supported between macro levels of turnover and ship performance. Whether or not personnel is related to downtime or particular ship divisions, systems or subsystems cannot be determined from this research. Since no relationship was found, examination of the correlations of the personal characteristics of the personnel involved in the turnover with ship performance was not attempted. Descriptive statistics of the characteristics of the people reporting to and departing ships are provided in Appendices J and K for the interested reader.

Appendix A

Ship Class Unit Identification Code File

<u>Variable</u>	<u>Position</u>	<u>Field Width</u>
Unit Identification Code	5	5
Class	11	4
Hull Number	16	4
Ship Name	20	14
Homeport	36	6
TAC (Type of Activity Code)	43	1
Ship Type Code	45	1
Class Code	47	2
Sub-class Code	50	2
Size (Personnel)	53	1
Age (Commissioning)	55	1
Engineering Plant	57	1
Nuclear Capable	59	1
Location	61	1
Active/NRF	63	1

Variable Description

UIC - unit identification code assigned to each naval unit and support activity.

Class - Alphanumeric abbreviation of ship class.

Hull number - numeric identification number assigned to each ship hull.

Ship name - name or an abbreviated form of the ship's name.

Homeport - abbreviation of the homeport location of each vessel.

TAC - type activity code:

1. Sea Duty - CONUS
2. Sea Duty - Overseas

Ship type:

1. Combatants
2. Auxiliary
3. Submarine
4. Carrier
5. Amphibious
6. Minesweeper

Ship Class - code that numerically represents the general ship classification as found in position 11 through 15.

Ship Sub-class - code that describes the specific class or make of ship with the general class.

Example: USS Coral Sea, coded: 4 6 27.

Ship type - 4: Carrier

Ship class - 6: CV

Ship Sub-class - 27: Midway Class Carrier

Size:

1. Less than 100 personnel
2. 100-199 personnel
3. 200-299 personnel
4. 300-399 personnel

5. 400-499 personnel
6. 500-599 personnel
7. 600-1499 personnel
8. 1500-2499 personnel
9. Greater than 2500 personnel

Ships were grouped for analysis as follows:

1 and 2 = Small

3 and 4 = Medium

5,6, and 7 = Large

8 and 9 = Extra Large

Age:

1. Ships commissioned in the 1940's
2. Ships commissioned in the 1950's
3. Ships commissioned in the 1960's
4. Ships commissioned in the 1970's

Engineering Plant:

1. Nuclear
2. 1200 PSI Steam
3. 600 PSI Steam
4. Diesel
5. Diesel Electric
6. Gas Turbine

Nuclear Capable:

1. Nuclear Capable
2. Non-nuclear Capable

Location:

1. East Coast
2. West Coast
3. Overseas
4. Hawaii

Active or Reserve Status:

1. Reserve
2. Active

These variable descriptions were developed by Gardner (1981) and his definitions of small, medium, large and extra large were utilized for this thesis.

Appendix B
Survival Tracking File

<u>Data Element</u>	<u>Length</u>	<u>Start</u>
Social Security Number	9	1
As-of Date Fiscal Year	2	10
As-of Date Quarter	1	12
As-of Date Count	2	13
Strength Indicator	1	15
Sex	1	16
Race	1	17
Ethnic Group	1	18
Date of Birth	4	19
AFQT	2	23
Education Years	2	25
Education Certification	1	27
A-School Indicator	1	28
Dependency-Primary	1	29
Term of Enlistment	1	30
Type of Enlistment	2	31
Term Status	1	33
Number of Enlistment	1	34
Type of Acquisition	2	35
Type of Program	1	37
Rate/Special Program Code	5	38

Branch/Class	2	43
RADO Months	3	45
Enlisted Designator	1	48
Present Rate Code	4	49
Present Pay Grade	1	53
PNEC	4	54
SNEC	4	58
ADSD	4	62
PEBD	4	66
CED	4	70
CADD	4	74
EAOS	4	78
Soft EAOS	4	82
EAOS Change Indicator	1	86
Onboard Actual UIC	5	87
Onboard ACC	3	92
Onboard Sea/Shore Code	1	95
Onboard Transfer Date	4	96
Past Actual UIC	5	100
SRB Received Indicator	1	105
SRB Zone	1	106
SRB Skill Indicator	1	107
SRB Award Level	1	108
RQC	2	109
Loss Date of Occurrence	4	111
Loss Code Navy	3	115
Loss Code DOD	3	118

Appendix C

CASREP Data

Ship Type

Hull Number

Severity of Outstanding Casreps

C-2

C-3

C-4

Total

Severity of Corrected Casreps

C-2

C-3

C-4

Total

Downtime Awaiting Parts (DWP)

Open Downtime

Corrected Downtime

Note:

Maintenance Downtime = Corrected Downtime - DWP

This data was converted to the following data set:

<u>Data Element</u>	<u>Length</u>	<u>Start</u>
UIC	5	1
TIME (Fiscal year and quarter)	3	9
Downtime (maintenance)	3	14

Appendix D

Ships of the Sample

22222222222222 22222222222222222222222222222222
4121321121134 314121222121132121211441144242
222211111111111122122112221111221111111111111
6633333133332233363333333333223344521112222122
1122112411122333123333311444444444444332333344
224499998874348341753577743344224372223445533
777777225281866391780447516395437665545742280
775777225281866391780447516395437665545742280
34491906060535549109551240261877339125162016301099080712
22554444222111212322555225112225153331111111
42224222552442424222222522242222222442244242

PEARL L CRK
L SDGO L CRK KA
L YOKSKA
ALAMEDA
MAYPRT
NORVA
SDGO CHAR LE
NORVA
YOKSKA
PEARL
SDGO AGANA
PHILA
PEARL
BREM
NORVA
SDGO
SDGO
SDGO
NORVA
SFRAME
CHES TE
CHAR LE
YOKSKA
CONCRD
NORVA
VALLE J
L SDGO
NORVA
GROTON
PEARL
CHAR LE
NORVA
PEARL
PEARL
SDGO
PEARL
SDGO

CCNSERVER
RECOVERY
THOMASTCN
PLYMOUTH ROCK
MIDWAY SEA
CORAL RESTAL
FORRETT
NIMITZ
SPERRY
SPRION
PIEDMONT
PARSONS
RICHARD EDWARDS
LYNDE MCCURMICK
HUNLEY L PAGE
RICHARD ABULA
ASHTABACK
CAMDEN
CONCORD
ST LOUIS
DENVER
OKINAWA
VULCAN
HECTOR
PORTLANC
BOWEN
KIRK HCOU
MOUNT SAVANNA
PIGEON AEF
BARNSTAELE CTY
KINKAN
SAIPKAN
RICHARD RUSSELL
J MARSHALL BLUE
J MARSHALL GOLD
JONAS INGRAM
COONTZ
PREBLE
REEVES
BAINBRIDGE
WHIPPLE
BAGLEY

ARS
LSD
LSD
CV
CV
CVN
AS
AD
LDG
LDG
AS
FFG
AG
SS
AFS
AFS
LKA
LPD
LPH
AR
AR
LSU
FF
FF
AE
AQR
ASR
LST
LHA
SSN
SSBN
SSBN
CDG
LDG
CG
CGN
FF
FF

02534
02538
03128
03129
03341
03343
03359
03368
04628
04637
04665
04666
C4674
C4689
C4698
C4951
C5604
C5833
C5836
C5847
07183
C7351
C8808
C8809
C8012
20050
20058
20112
20123
20143
20276
20632
20642
30109
30110
52198
52234
522686
522699
52700
54057
54064

Appendix E

Subfile Data Elements

The data elements listed below are contained in the REPORTED.
DATA, DEPARTED.DATA AND SHIPSRTA.DATA subfiles.

<u>Element</u>	<u>Variable Name</u>	<u>Start</u>	<u>Length</u>
Social Security Number	SSN	1	9
As-of-Date Fiscal Year	FY	11	2
As-of-Date Quarter	Quarter	13	1
As-of-Date Count	Count	14	2
Sex	Sex	17	1
Race	Race	18	1
Ethnic Group	Ethnicgp	20	1
Date of Birth (year)	DOBYR	22	2
Date of Birth (month)	DOBMO	24	2
AFQT	AFQT	27	2
Education	Ed	30	2
Current Rate	Rate	33	4
Current Paygrade	Paygrde	37	1
Active Duty Start Date (year)	ADSDYR	39	2
Active Duty Start Date (month)	ADSDMO	41	2
Current Actual Onboard UIC	UIC	44	5
Sea/Shore Code	Seashore	50	1
Past Actual Onboard UIC	PastUIC	52	5
Ship Class	Stype	59	4

Hull Number	Hulln	64	4
Ship Name	-	69	14
Homeport	-	88	6
Type Activity Coce	TAC	96	1
Ship Type Code	SCODE	98	1
Class Code	SCLASS	100	2
Sub-class Code	Subclass	104	2
Size (Personnel)	Size	107	1
Age (Commissioning)	Sage	109	1
Engineering Plant	EngPlnt	111	1
Nuclear Capable	Neuc	113	1
Location	Location	115	1
Active/NRF	Status	117	1

Appendix F

Personnel Selection Fortran Program Listing

```

//REEVES6 JOB (2313,0144), 'WAYNE R REEVES 1444',CLASS=F
//*MAIN ORG=MPGVM1.2313P
// EXEC FORTXCC
//SYSD DD *

```

```

CCCCCCCCCCCC
THIS PROGRAM READS IN 9 DATA FIELDS FROM
THE STF FILE. FOR A DIFFERENT NUMBER OF DATA FIELDS
THE DIMENSION OF 'A' AND THE COLUMN DIMENSION OF 'B'
MUST BE CHANGED.

```

```

CCCCCCCCCCCC
THE ROW DIMENSION OF B SHOULD BE GREATER THAN THE MOST
RECORDS ONE INDIVIDUAL COULD HAVE.

```

```

CCCCCCCCCCCC
THIS PROGRAM FINDS ALL ONE INDIVIDUAL'S RECORDS BY
COMPARING SOCIAL SECURITY NUMBERS. WHEN THE SSAN
CHANGES, THE BEGINNING OF A NEW PERSON'S RECORDS IS
ASSUMED. THE SSAN IS STORED IN SSN(2) AS A1,A8

```

```

CCCCCCCCCCCC
REAL*8 A,B,SSN
REAL*8 UIC
COMMON A(16),B(20,16),SSN(2),UIC(4,10)

```

```

CCCC
READ IN THE SHIP UIC'S
SET THE NUMBER OF UIC'S = NUIC

```

```

CCCC
NUIC=44
DO 10 I=1,NUIC
10 READ(4,11) (UIC(I,J),J=1,10)
11 FORMAT(A1,A4,8A8)

```

```

CCCC
READ IN THE VERY FIRST RECORD

```

```

CCCC
READ(1,50) A
FORMAT(A1,A8,A5,1X,A1,A1,A1,A4,A2,A2,A5,A4,A2,A4,A1,A8)
*A4,3X,A1,100,A1,A4)
SSN(1)=A(1)
SSN(2)=A(2)
LAST=1
SUBROUTINE RDREC READS IN ALL THE RECORDS FOR ONE PERSON
ON OUTPUT:
B: ALL THE RECORDS FOR ONE PERSON
THE RECORDS ARE SAVED ROW BY ROW. (MATRIX)
NREC: NUMBER OF RECORDS FOR ONE PERSON. (SCALAR)
A: THE FIRST RECORD OF B USED BY THIS PERSON.
SSN: THE SOCIAL SECURITY NUMBER OF THE NEXT PERSON (VECTOR)

```

```

REE00010
REE00020
REE00030
REE00040
REE00050
REE00060
REE00070
REE00080
REE00090
REE00100
REE00110
REE00120
REE00130
REE00140
REE00150
REE00160
REE00170
REE00180
REE00190
REE00200
REE00210
REE00220
REE00230
REE00240
REE00250
REE00260
REE00270
REE00280
REE00290
REE00300
REE00310
REE00320
REE00330
REE00340
REE00350
REE00360
REE00370
REE00380
REE00390
REE00400
REE00410
REE00420
REE00430
REE00440
REE00450
REE00460
REE00470
REE00480

```


RE 00490
RE 00500
RE 00510
RE 00520
RE 00530
RE 00540
RE 00550
RE 00560
RE 00570
RE 00580
RE 00590
RE 00600
RE 00610
RE 00620
RE 00630
RE 00640
RE 00650
RE 00660
RE 00670
RE 00680
RE 00690
RE 00700
RE 00710
RE 00720
RE 00730
RE 00740
RE 00750
RE 00760
RE 00770
RE 00780
RE 00790
RE 00800
RE 00810
RE 00820
RE 00830
RE 00840
RE 00850
RE 00860
RE 00870
RE 00880
RE 00890
RE 00900
RE 00910
RE 00920
RE 00930
RE 00940
RE 00950
RE 00960

```
C FOR THE LAST PERSON, RDREC RETURNS LAST=2  
C UP TO THAT TIME, LAST=1  
C  
C 100 CONTINUE  
C CALL RDRFC(NREC, LAST)  
C  
C AT THIS POINT YOU HAVE ALL ONE INDIVIDUAL'S RECORDS IN  
C MATRIX 'B'. YOU CAN CALCULATE OR EXTRACT THE INFORMATION  
C OF INTEREST AND PRINT IT OUT OR WRITE IT TO DISK.  
C  
C THIS SUBROUTINE WILL TEST FOR ERRORS IN THE FIRST DIGIT OF THE  
C CURRENT ONBOARD UIC. IF ONE IS FOUND A CORRECTION IS MADE.  
C THE ONLY ERROR TESTED FOR IS A 9 AS THE FIRST CHARACTER OF THE  
C UIC.  
C  
C CALL TEST(NREC, LAST)  
C  
C THIS SUBROUTINE WILL CREATE A SUBFILE OF ALL PERSONNEL ATTACHED TO  
C THE SHIPS OF INTEREST. IT COMPARES EVERY RECORD IN MATRIX B TO THE  
C SHIPS OF INTEREST. IF A MATCH IS FOUND IT PRINTS THE RECORD  
C  
C CALL SHPSRT(NREC, LAST)  
C  
C THIS SUBROUTINE WILL DETERMINE CHANGES IN THE INDIVIDUALS UIC  
C FILE. IT WILL THEN COMPARE THE UICS TO SHIP UIC FILE AND PRINT  
C A FILE OF REPORTERS AND LEAVERS.  
C  
C CALL CPUTUT(NREC, NUIC)  
C  
C IF THIS IS THE LAST CASE,  
C BRANCH OUT OF THE LOOP.  
C  
C 220 IF(LAST.EQ.2) GO TO 250  
C GO TO 100  
C  
C 250 CONTINUE  
C STOP  
C END  
C *****RECORD READING SUBROUTINE*****  
C *****  
C *****SUBROUTINE RDRFC(NREC, LAST)  
C REAL*8 A, B, SSN  
C REAL*8 UIC  
C COMMON A(16), B(20, 16), SSN(2), UIC(4, 10)
```

```

000970
000980
000990
01000
01010
01020
01030
01040
01050
01060
01070
01080
01090
01100
01110
01120
01130
01140
01150
01160
01170
01180
01190
01200
01210
01220
01230
01240
01250
01260
01270
01280
01290
01300
01310
01320
01330
01340
01350
01360
01370
01380
01390
01400
01410
01420
01430
01440

```

```

C DO 10 I=1,16
C 10 B(I,I)=A(I)
C NREC=1
C READ IN A NEW LRECL
C 40 READ(1,50,END=300) A
C 50 FORMAT (A1,A8,A5,1X,A1,A1,A1,A4,A2,A2,T49,A5,T62,A4,T87,A1,
C *A4,3X,A1,I100,A1,A4)
C COMPARE THE PREVIOUS SSN WITH THE NEW ONE.
C IF (SSN(1).EQ.A(1).AND.SSN(2).EQ.A(2)) GO TO 200
C WITHOUT THE MATCH, ALL ONE PERSON'S RECORDS HAVE
C BEEN READ IN. SAVE THE NEW PERSON'S SSN AND RETURN
C SSN(1)=A(1)
C SSN(2)=A(2)
C RETURN
C ACCUMULATE ANOTHER RECORD OF INFORMATION FOR
C ONE PERSON IN MATRIX 'B'.
C 200 CONTINUE
C NREC=NREC+1
C DO 220 I=1,16
C 220 B(NREC,I)=A(I)
C 300 LAST=2
C RETURN
C END
C *****
C ***** OUTPUT SUBROUTINE *****
C *****
C ***** SUBROUTINE OUTPUT(NREC,NUIC)
C REAL*8 A,B,SSN
C REAL*8 UIC
C REAL*8 C(20,16)
C COMMON A(16),B(20,16),SSN(2),UIC(44,10)
C A RECORD IS WRITTEN FROM MATRIX B INTO
C MATRIX C WHEN THE UIC CHANGES.
C DO 10 I=1,16
C 10 C(I,I)=B(I,I)
C NDIFF IS THE NUMBER OF DIFFERENT UIC'S

```

```

EEEE01450
EEEE01460
EEEE01470
EEEE01480
EEEE01490
EEEE01500
EEEE01510
EEEE01520
EEEE01530
EEEE01540
EEEE01550
EEEE01560
EEEE01570
EEEE01580
EEEE01590
EEEE01600
EEEE01610
EEEE01620
EEEE01630
EEEE01640
EEEE01650
EEEE01660
EEEE01670
EEEE01680
EEEE01690
EEEE01700
EEEE01710
EEEE01720
EEEE01730
EEEE01740
EEEE01750
EEEE01760
EEEE01770
EEEE01780
EEEE01790
EEEE01800
EEEE01810
EEEE01820
EEEE01830
EEEE01840
EEEE01850
EEEE01860
EEEE01870
EEEE01880
EEEE01890
EEEE01900
EEEE01910
EEEE01920

```

```

C      NDIFF=1
C      IF (NREC.EQ.1) GC TO 60
C
C      IF THE ITH UIC IS NOT EQUAL THE PREVIOUS UIC,
C      WRITE THE ITH RECORD FROM MATRIX B INTO MATRIX C.
C      MATRIX C IS INDEXED BY NDIFF
C
C      DO 20 I=2,NREC
C      I1=I-1
C      IF((B(I,12)).EQ.B(I1,12)).AND.(B(I,13).EQ.B(I1,13))) GO TO 20
C      NDIFF=NDIFF+1
C      DO 15 J=1,16
C      C(NDIFF,J)=B(I,J)
C      15 CONTINUE
C
C      MATRIX C CONTAINS THE RECORDS WHICH HAD DIFFERENT UIC'S
C      THE NUMBER OF ROWS IN C = NDIFF
C
C      DO 90 I=1,NDIFF
C      DO 80 J=1,NUIC
C
C      IF(UIC(J,1).NE.C(I,12)).OR.(UIC(J,2).NE.C(I,13))) GO TO 80
C      WRITE(2,85) (C(I,K),K=1,16), (UIC(J,K),K=3,10)
C      WRITE(3,85) (C(I+1,K),K=1,14), (UIC(J,K),K=1,10)
C      *      FORMAT (A1,A8,1X,A5,1X,A1,A1,1X,A1,1X,A4,1X,A2,1X,
C      *      A2,1X,A5,1X,A4,1X,A1,A4,1X,A1,1X,A1,A4,8A8)
C      GO TO 90
C      80 CONTINUE
C      90 CONTINUE
C      RETURN
C      END
C      ***** SUBROUTINE TEST *****
C      ***** SUBROUTINE TEST *****
C      ***** SUBROUTINE TEST (NREC, LAST) *****
C      REAL*8 A,B,SSN
C      REAL*8 UIC,NINE
C      DATA NINE/9.1/
C      COMMON A(16),B(20,16),SSN(2),UIC(44,10)
C
C

```

THIS SUBROUTINE WILL TEST AN INDIVIDUALS RECORD FOR A TYPO-
 GRAPHICAL ERROR IN THE FIRST DIGIT OF THE CURRENT ONBOARD
 UIC. IT WAS DETERMINED THAT A 9 IN THE FIRST DIGIT OF A UIC
 WAS AN INDICATOR OF A POSSIBLE ERROR. UIC'S THAT BEGIN WITH
 A 9 ARE USUALLY RESERVED FOR CIVILIAN SUPPORT ACTIVITIES.
 THE TEST LOCATES A 9 IN THE FIRST DIGIT OF THE UIC AND THEN
 COMPARES THE LAST FOUR DIGITS WITH THE UIC THAT IMMEDIATELY
 PROCEEDS OR FOLLOWS. IF A MATCH IS FOUND THE UIC WITH THE 9
 IS CHANGED TO MATCH.

```

C                                     REE01930
C                                     REE01940
C                                     REE01950
C                                     REE01960
C                                     REE01970
C                                     REE01980
C                                     REE01990
C                                     REE02000
C                                     REE02010
C                                     REE02020
C                                     REE02030
C                                     REE02040
C                                     REE02050
C                                     REE02060
C                                     REE02070
C                                     REE02080
C                                     REE02090
C                                     REE02100
C                                     REE02110
C                                     REE02120
C                                     REE02130
C                                     REE02140
C                                     REE02150
C                                     REE02160
C                                     REE02170
C                                     REE02180
C                                     REE02190
C                                     REE02200
C                                     REE02210
C                                     REE02220
C                                     REE02230
C                                     REE02240
C                                     REE02250
C                                     REE02260
C                                     REE02270
C                                     REE02280
C                                     REE02290
C                                     REE02300
C                                     REE02310
C                                     REE02320
C                                     REE02330
C                                     REE02340
C                                     REE02350
C                                     REE02360
C                                     REE02370
C                                     REE02380
C                                     REE02390
C                                     REE02400

C                                     *****
C                                     ***** SHIP SORTING SUBROUTINE *****
C                                     *****
C                                     *****

C                                     END
C                                     RETURN
C                                     CONTINUE
C 10 CONTINUE
C 20 CONTINUE
C 30 CONTINUE
C 40 CONTINUE
C 50 CONTINUE
C 60 CONTINUE
C 70 CONTINUE
C 80 CONTINUE
C 90 CONTINUE
C 100 CONTINUE
C 110 CONTINUE
C 120 CONTINUE
C 130 CONTINUE
C 140 CONTINUE
C 150 CONTINUE
C 160 CONTINUE
C 170 CONTINUE
C 180 CONTINUE
C 190 CONTINUE
C 200 CONTINUE
C 210 CONTINUE
C 220 CONTINUE
C 230 CONTINUE
C 240 CONTINUE
C 250 CONTINUE
C 260 CONTINUE
C 270 CONTINUE
C 280 CONTINUE
C 290 CONTINUE
C 300 CONTINUE
C 310 CONTINUE
C 320 CONTINUE
C 330 CONTINUE
C 340 CONTINUE
C 350 CONTINUE
C 360 CONTINUE
C 370 CONTINUE
C 380 CONTINUE
C 390 CONTINUE
C 400 CONTINUE
C 410 CONTINUE
C 420 CONTINUE
C 430 CONTINUE
C 440 CONTINUE
C 450 CONTINUE
C 460 CONTINUE
C 470 CONTINUE
C 480 CONTINUE
C 490 CONTINUE
C 500 CONTINUE
C 510 CONTINUE
C 520 CONTINUE
C 530 CONTINUE
C 540 CONTINUE
C 550 CONTINUE
C 560 CONTINUE
C 570 CONTINUE
C 580 CONTINUE
C 590 CONTINUE
C 600 CONTINUE
C 610 CONTINUE
C 620 CONTINUE
C 630 CONTINUE
C 640 CONTINUE
C 650 CONTINUE
C 660 CONTINUE
C 670 CONTINUE
C 680 CONTINUE
C 690 CONTINUE
C 700 CONTINUE
C 710 CONTINUE
C 720 CONTINUE
C 730 CONTINUE
C 740 CONTINUE
C 750 CONTINUE
C 760 CONTINUE
C 770 CONTINUE
C 780 CONTINUE
C 790 CONTINUE
C 800 CONTINUE
C 810 CONTINUE
C 820 CONTINUE
C 830 CONTINUE
C 840 CONTINUE
C 850 CONTINUE
C 860 CONTINUE
C 870 CONTINUE
C 880 CONTINUE
C 890 CONTINUE
C 900 CONTINUE
C 910 CONTINUE
C 920 CONTINUE
C 930 CONTINUE
C 940 CONTINUE
C 950 CONTINUE
C 960 CONTINUE
C 970 CONTINUE
C 980 CONTINUE
C 990 CONTINUE
C 1000 CONTINUE
  
```

REE02410
 REE02420
 REE02430
 REE02440
 REE02450
 REE02460
 REE02470
 REE02480
 REE02490
 REE02500
 REE02510
 REE02520
 REE02530
 REE02540
 REE02550
 REE02560
 REE02570
 REE02580
 REE02590
 REE02600
 REE02610
 REE02620
 REE02630
 REE02640
 REE02650
 REE02660
 REE02670
 REE02680
 REE02690
 REE02700
 REE02710
 REE02720
 REE02730
 REE02740
 REE02750
 REE02760
 REE02770
 REE02780
 REE02790
 REE02800
 REE02810
 REE02820
 REE02830
 REE02840
 REE02850
 REE02860
 REE02870
 REE02880

```

C      SUBROUTINE SHPSRT (NREC, LAST)
C
C      THIS PROGRAM WILL COMPARE EACH RECORD IN THE INDIVIDUAL'S FILE WITH
C      A FILE OF SHIP UIC'S OF INTEREST. IF A MATCH IS FOUND,
C      IT WILL WRITE THE RECORD IN ANOTHER FILE.
C
C      INITIALIZE THE VARIABLES:
C      B(20,15) THE MATRIX CONTAINING ALL
C      CORRECTED RECORDS OF THE INDIV.
C      UIC(44,10) THE MATRIX CONTAINING ALL THE
C      DATA OF THE SHIPS OF INTEREST
C
C      INTEGER I, J, K, LAST, L
C      REAL*8 A, B, SSN
C      REAL*8 UIC, NINE
C      COMMON A(16), B(20,16), SSN(2), UIC(44,10)
C
C      THIS SECTION WILL DO THE COMPARISON OF SHIP AND INDIVIDUAL UICS
C
C      DO 005 J=1, NREC
C      DO 002 K=1, 44
C      IF (B(J, I), I=1, 16), (UIC(K, L), L=3, 10)
C      WRITE(15, 85)
C      FORMAT (A1, A8, 1X, A5, 1X, A1, 1X, A1, 1X, A4, 1X, A2, 1X,
C      A2, 1X, A5, 1X, A4, 1X, A1, 1X, A1, 1X, A1, A4, 8A8)
C
C      * CONTINUE
C      CONTINUE
C      RETURN
C      END
C
C      //GO.FT01F001 DD UNIT=3400-6 VOL=SER=NPS317, DISP=(OLD, PASS),
C      LABEL=(2, BLP, IN), CCB=(RECFM=FB, LRECL=120, BLKSIZE=32400, DEN=4)
C      //GO.FT02F001 DD CCB=(RECFM=FB, LRECL=120, BLKSIZE=12000),
C      DSN=MSS.S2313.REPORTED.DATAG, DISP=(OLD, KEEP),
C      //GO.FT03F001 DD CCB=(RECFM=FB, LRECL=120, BLKSIZE=12000),
C      DSN=MSS.S2313.DEPARTED.DATAG, DISP=(OLD, KEEP),
C      //GO.FT15F001 DD DISP=(OLD, KEEP), L=20, BLKSIZE=12000),
C      CCB=(RECFM=FB, LRECL=120, SHIPSRTA.DATAG
C      DSN=MSS.S2313.SHIPSRTA.DATAG
C      //GO.FT04F001 DD *
C      02534 ARS 39 CONSERVER PEARL 4 2 34 77 2 1 6 2 4 2
  
```


Appendix G
Quarter Conversion Fortran Program Listing

SOR00010
 SOR00020
 SOR00030
 SOR00040
 SOR00050
 SOR00060
 SOR00070
 SOR00080
 SOR00090
 SOR00100
 SOR00110
 SOR00120
 SOR00130
 SOR00140
 SOR00150
 SOR00160
 SOR00170
 SOR00180
 SOR00190
 SOR00200
 SOR00210
 SOR00220
 SOR00230
 SOR00240
 SOR00250
 SOR00260
 SOR00270
 SOR00280
 SOR00290
 SOR00300
 SOR00310
 SOR00320
 SOR00330
 SOR00340
 SOR00350
 SOR00360
 SOR00370
 SOR00380
 SOR00390
 SOR00400
 SOR00410
 SOR00420
 SOR00430
 SOR00440
 SOR00450
 SOR00460
 SOR00470
 SOR00480

```

//REEVES JOB (2313,0144), 'WAYNE R REEVES 1444', CLASS=C
//*MAIN ORG=NPGVM1.2313P
// EXEC FORTXCG
//SYSIN DD *
C THIS PROGRAM WILL CREATE ANOTHER DATA SET FROM THE
C SUBSETTED STF FILES. IT WILL INDEX THE FISCAL YEAR
C AND QUARTER OF THE RECORD AND THEN REWRITE IT IN AN-
C ONYER DATA BANK.
C
C THE RECCRD WILL BE READ INTO A VECTOR 19 SPACES LONG
C ELEMENTS OF THE VECTOR WILL BE USED TO DETERMINE CURRENT
C QUARTER AND COUNT AND THEN INDEXED ACCORDINGLY.
C
C
C REAL*8 A(19)
C INTEGER COUNT,Q,I
C COUNT=0
C
C READ IN THE FIRST RECORD
C SET COUNT = TO THE RECORD'S COUNT AND Q = TO RECORD'S QUARTER
C
C010 READ(1,50,END=500) A(1),A(2),I3,I4,I5,A(6),A(7),A(8)
C *A(9),A(10),A(11),A(12),A(13),A(14),A(15),A(16),A(17),A(18),A(19)
C FORMAT (A1,A8,1X,I2,I1,I2,I1,I2,I3A8,A1)
C
C COUNT=I5
C Q=I4
C
C THE FIRST TEST WILL DETERMINE WHETHER THE RECORD IS FOR
C ONE QUARTER ONLY. IF IT IS THE RECORD WILL BE WRITTEN TO
C THE NEW FILE AS IS. OTHERWISE THE PROGRAM WILL BRANCH AROUND
C THE WRITE TO THE NEXT TEST.
C
C IF (COUNT .NE. 1) GO TO 100
C WRITE(2,50) A(1),A(2),I3,I4,I5,A(6),A(7),A(8)
C *A(9),A(10),A(11),A(12),A(13),A(14),A(15),A(16),A(17),A(18),A(19)
C GO TO 010
C
C THIS TEST WILL BE REPEATED FOR THE AMOUNT OF THE COUNT. IT WILL
  
```


SOR00490
 SOR00500
 SOR00510
 SOR00520
 SOR00530
 SOR00540
 SOR00550
 SOR00560
 SOR00570
 SOR00580
 SOR00590
 SOR00600
 SOR00610
 SOR00620
 SOR00630
 SOR00640
 SOR00650
 SOR00660
 SOR00670
 SOR00680
 SOR00690
 SOR00700
 SOR00710
 SOR00720
 SOR00730
 SOR00740
 SOR00750
 SOR00760
 SOR00770
 SOR00780
 SOR00790
 SOR00800
 SOR00810
 SOR00820
 SOR00830

TEST TO DETERMINE WHETHER THE RECORD STARTS IN THE FOURTH
 QUARTER. IF IT DOES IT INDEXES THE FISCAL YEAR AND RESETS THE
 QUARTER TO ONE. OTHERWISE, IT SETS THE COUNT TO ONE, INDEXES THE
 QUARTER AND WRITES THE RECORD.

```

100  DO 200 I=1,CCOUNT
      IF (Q.EC.4) GO TO 300
      I5=1
      WRITE(2,50) A(1),A(2),I3,I4,I5,A(6),A(7),A(8),
      *A(9),A(10),A(11),A(12),A(13),A(14),A(15),A(16),A(17),A(18),A(19)
      I4=I4+1
      Q=I4
      GO TO 301
300  CONTINUE
      I5=1
      WRITE(2,50) A(1),A(2),I3,I4,I5,A(6),A(7),A(8),
      *A(9),A(10),A(11),A(12),A(13),A(14),A(15),A(16),A(17),A(18),A(19)
      I3=I3+1
      I4=I3
      Q=I4
      CONTINUE
      GO TO 010
200  CONTINUE
      GO TO 010
500  STOP
      END
//GO.FT02F001 DD UNIT=3330V,MSVGP=PUB4Z,DISP=(NEW,CATLG),
//SPACE=(CYL,(64,4)),DCB=(RECFM=FB,LRECL=120,BLKSIZE=12000),
//DSN=MS.S.S2313.QUARTER.REPORTED.DATA
//GO.FT01F001 DD UNIT=3330V,MSVGP=PUB4Z,DISP=(OLD,KEEP),
//DCB=(RECFM=FB,LRECL=120,BLKSIZE=12000),SPACE=(CYL,(64,4)),
//DSN=MS.S.S2313.REPORTED.DATA
  
```

Appendix H

Average Turnover Rates

Average Yearly Turnover by Ship Type

SHIP TYPE	COMBATANT	AUXILIARY	SUBMARINE	CARRIER	AMPHIBIOUS
Turnover	1.519	1.554	1.587	1.342	1.44
Std. Dev	.166	.110	.163	.079	.115
N	14	14	2	4	7

Quarterly and Average Yearly Turnover Rates by UIC

UIC	FISCAL YEAR AND QUARTER										AVG YR
	801	802	803	804	811	812	813	814	821	822	
02534	.439	.475	.182	.292	.243	.341	.463	.560	.329	.414	1.500
02538	.324	.297	.486	.378	.243	.554	.581	.594	.189	.486	1.729
03128	.269	.410	.305	.290	.316	.472	.338	.392	.323	.432	1.398
03129	.189	.328	.324	.317	.262	.598	.200	.379	.240	.423	1.301
03341	.284	.428	.326	.337	.360	.476	.311	.428	.352	.416	1.477
03343	.282	.328	.309	.268	.290	.421	.329	.348	.323	.363	1.289
03359	.297	.395	.306	.344	.334	.462	.347	.463	.381	.383	1.322
03368	.276	.280	.321	.269	.271	.392	.307	.441	.345	.376	1.280
04621	.406	.427	.271	.456	.292	.424	.343	.430	.377	.530	1.526
04628	.423	.347	.439	.689	.196	.334	.305	.598	.471	.508	1.667
04637	.343	.470	.480	.383	.409	.384	.368	.390	.363	.405	1.613
04665	.236	.587	.346	.406	.938	.449	.394	.536	.417	.547	1.940
04666	.381	.344	.289	.463	.333	.418	.285	.433	.266	.348	1.473
04674	.309	.387	.273	.305	.348	.326	.412	.458	.387	.461	1.409
04689	.402	.503	.769	.412	.350	.373	.285	.453	.393	.393	1.773
04698	.289	.323	.352	.304	.309	.420	.255	.458	.420	.589	1.355

UIC	FISCAL YEAR AND QUARTER										AVG YR
	801	802	803	804	811	812	813	814	821	822	
04951	.378	.502	.426	.371	.338	.378	.295	.353	.320	.371	1.520
05604	.353	.662	.309	.162	.397	.441	.559	.618	.420	.368	1.750
05833	.309	.401	.306	.370	.453	.440	.338	.433	.363	.469	1.525
05836	.456	.343	.368	.384	.289	.516	.264	.343	.419	.478	1.481
05847	.341	.333	.314	.364	.283	.310	.314	.302	.375	.391	1.280
07183	.342	.353	.339	.285	.299	.467	.353	.485	.339	.402	1.461
07351	.268	.418	.381	.381	.338	.466	.402	.455	.266	.280	1.554
08808	.337	.387	.328	.337	.340	.440	.354	.421	.295	.375	1.472
08809	.318	.318	.292	.325	.345	.417	.327	.493	.352	.443	1.417
20012	.325	.310	.374	.377	.377	.366	.377	.501	.355	.456	1.503
20050	.268	.321	.434	.326	.365	.356	.375	.585	.570	.409	1.337
20058	.281	.352	.290	.372	.381	.472	.357	.519	.310	.510	1.512
20112	.336	.444	.328	.377	.406	.526	.436	.470	.380	.470	1.661
20123	.335	.380	.383	.328	.351	.306	.264	.490	.370	.438	1.418
20143	.318	.325	.369	.304	.296	.419	.427	.477	.361	.456	1.467
20223	.284	.390	.461	.432	.343	.420	.361	.550	.521	.544	1.620
20576	.342	.422	.322	.386	.342	.338	.330	.410	.354	.370	1.446
20632	.291	.297	.373	.363	.407	.444	.300	.457	.372	.333	1.466
20642	.370	.304	.361	.323	.351	.408	.256	.475	.313	.456	1.424
52198	.321	.367	.364	.410	.383	.387	.325	.398	.364	.498	1.477
52234	.280	.363	.379	.312	.292	.395	.257	.486	.408	.389	1.382
52686	.276	.384	.406	.488	.250	.371	.384	.429	.338	.377	1.494
52699	.373	.342	.263	1.049	.339	.348	.301	.408	.376	.339	1.711
52700	.250	.379	.303	.265	.372	.425	.279	.408	.346	.415	1.340
54057	.275	.408	.436	.374	.322	.351	.313	.484	.332	.460	1.481
54064	.323	.338	.400	.318	.381	.386	.376	.478	.415	.362	1.500

Appendix I
Final Data Set

The final data set utilized for analysis is described below. The ships were selected in a manner to insure adequate representation of various ship classes and missions of today's Naval forces, but were randomly selected within the subgroups to prevent inadvertant biases in the data. Although STF data was available from the fourth quarter of FY 1977 until the second quarter of FY 1982, CASREP data was only available for FY 1980 to second quarter of FY 1982.

DATA ELEMENT	POSITION -	LENGTH
Unit Identification Code *	4	5
Ship Type *	12	1
Ship Class *	20	2
Ship Subclass *	28	2
Size (Personnel) *	36	1
Age *	44	1
Correlation Coefficient	52	8
Downtime (Days)	60	4
Turnover	68	8

* The coding of these data elements was discussed in Appendix E.

Appendix J

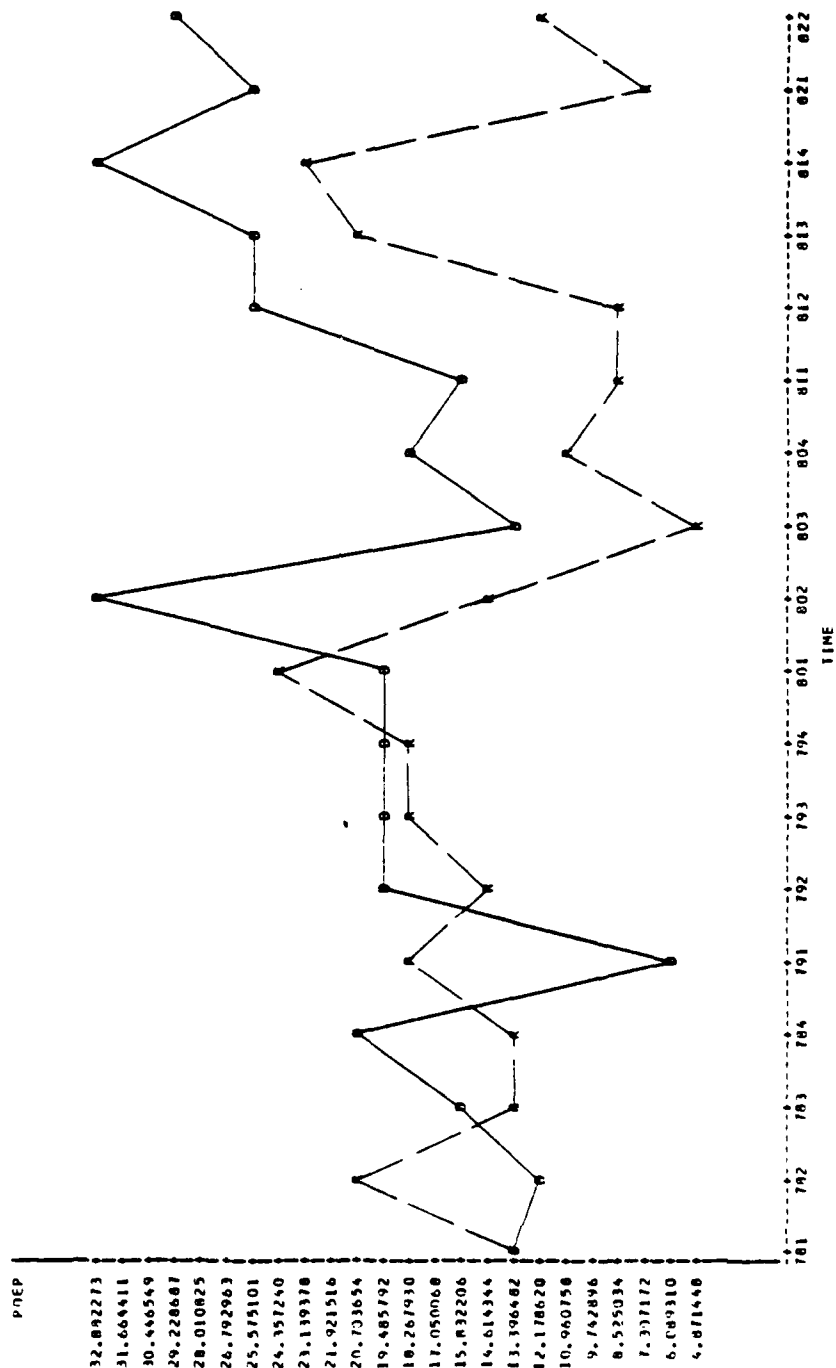
Graphs of Percentage of Reporters and Leavers by UIC

The graphs contained in this appendix portray the percentage of personnel who report to and leave from a ship contained in the sample. The solid line connecting the "D" in the graph depicts the changes in the percentage of departers. Likewise, the dashed line connecting the "R" in the graph depicts the reporters.

STATISTICAL ANALYSIS SYSTEM

UIC-02534

PLOT OF PREP TIME SYMBOL USED IS R

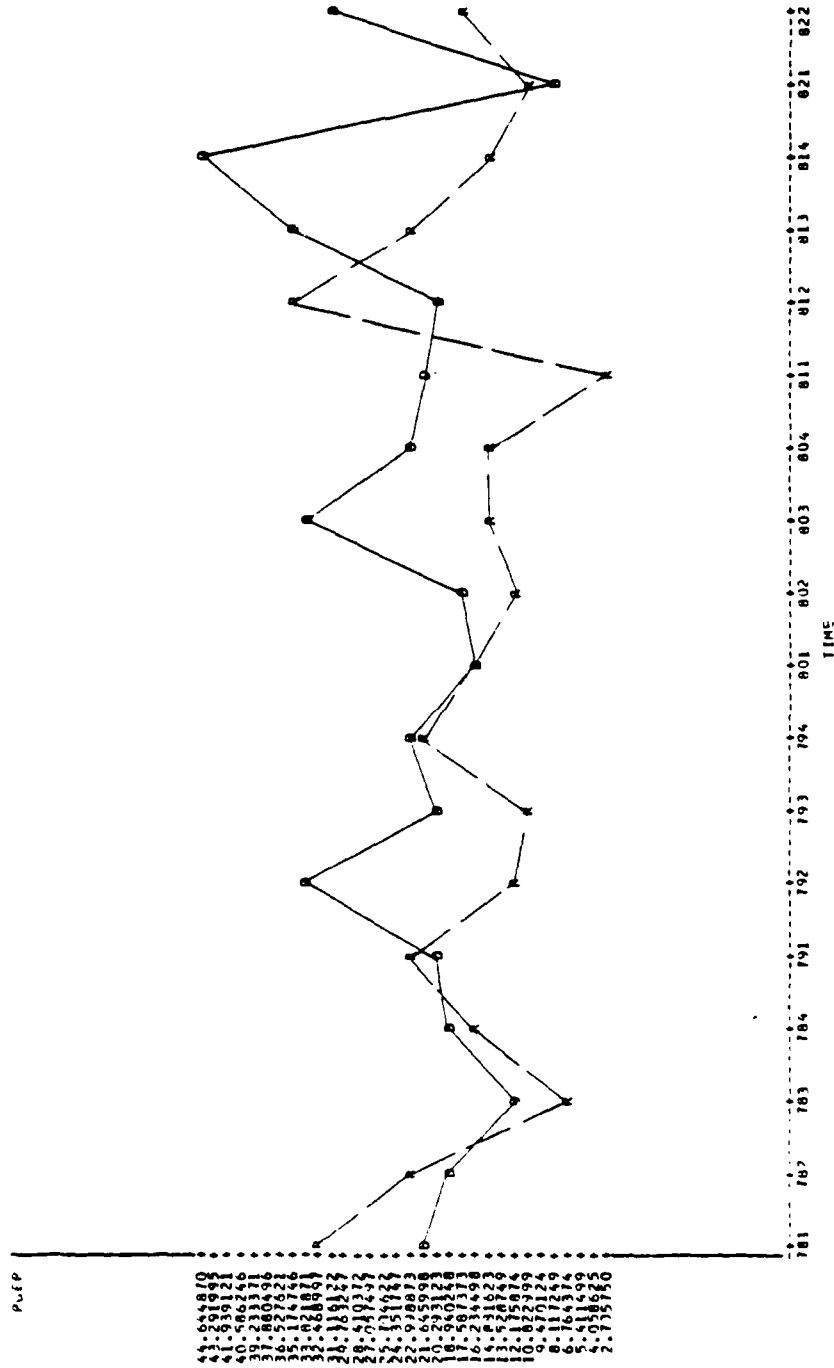


ARS 39 CONSERVER

STATISTICAL ANALYSIS SYSTEM

UIC-02537

PLOT OF PREP TIME SYMBOL USED IS R

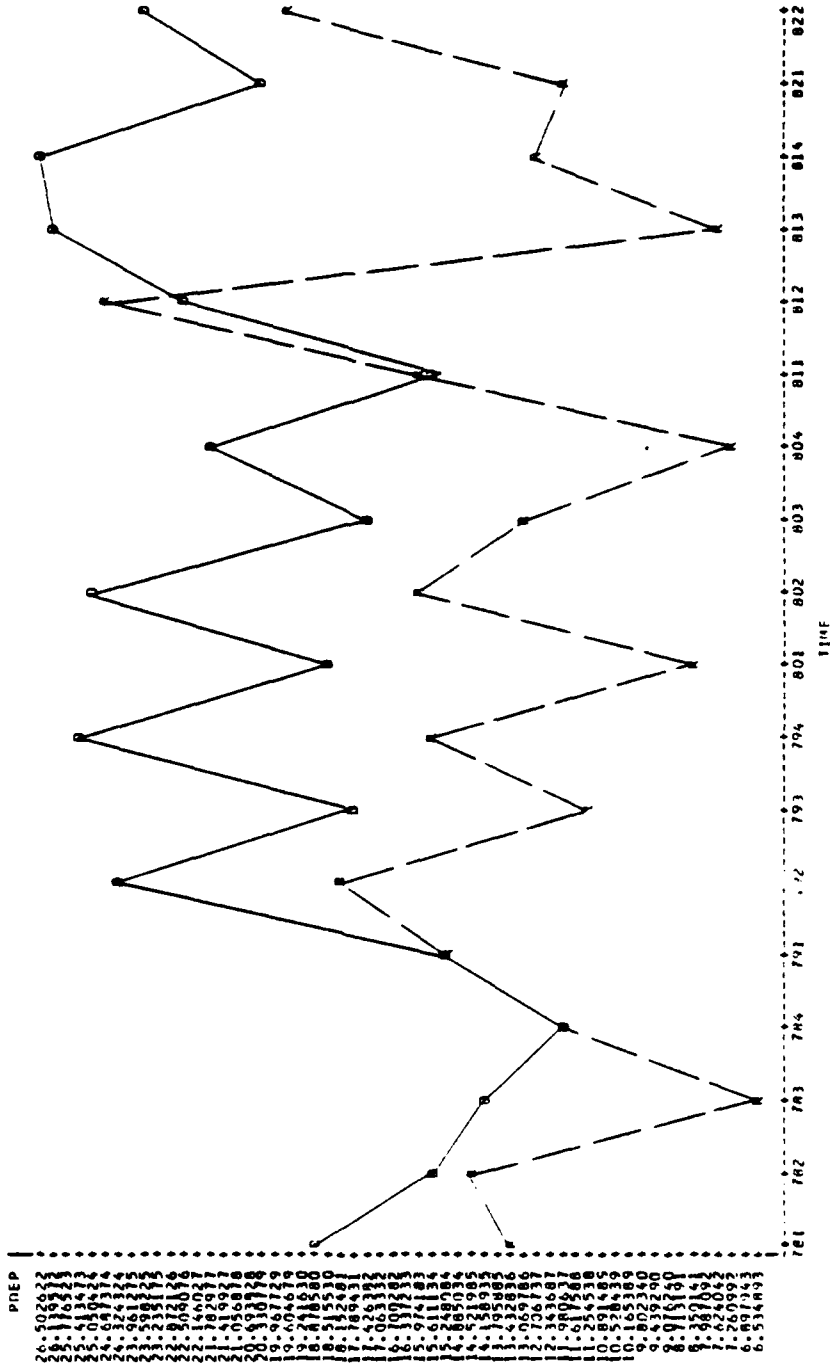


ARS 43 RECOVERY

STATISTICAL ANALYSIS SYSTEM

UIC-03120

PLOT OF PREP TIME SYMBOL USED IS O

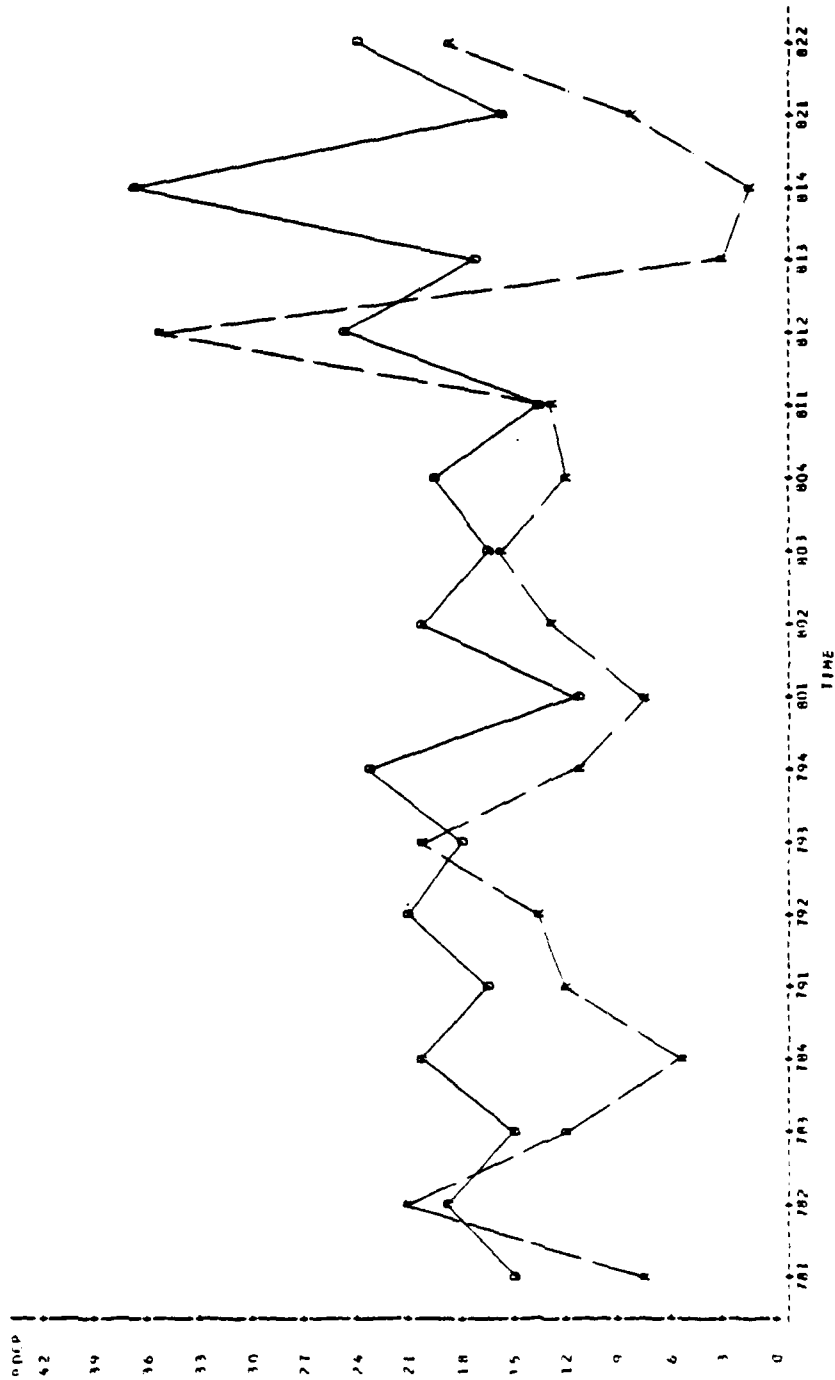


LSD 28 THOMASTON

STATISTICAL ANALYSIS SYSTEM

UIC-03129

PLOT OF PREP+TIME SYMBOL USED IS D
PLOT OF PREP+TIME SYMBOL USED IS R

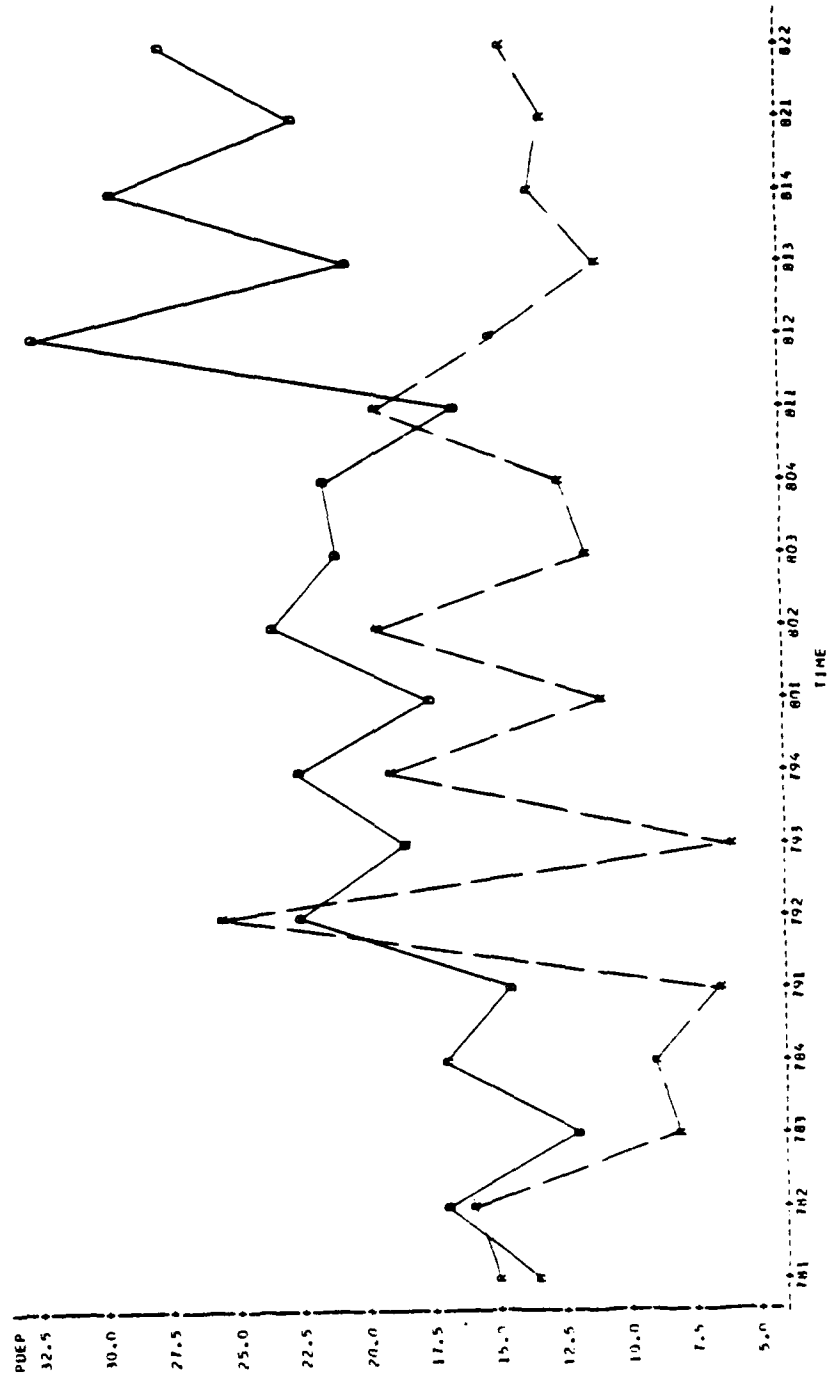


LSD 29 PLYMOUTH ROCK

STATISTICAL ANALYSIS SYSTEM

UIC-03343

PLOT OF PREPOTIME SYMBOL USED IS R

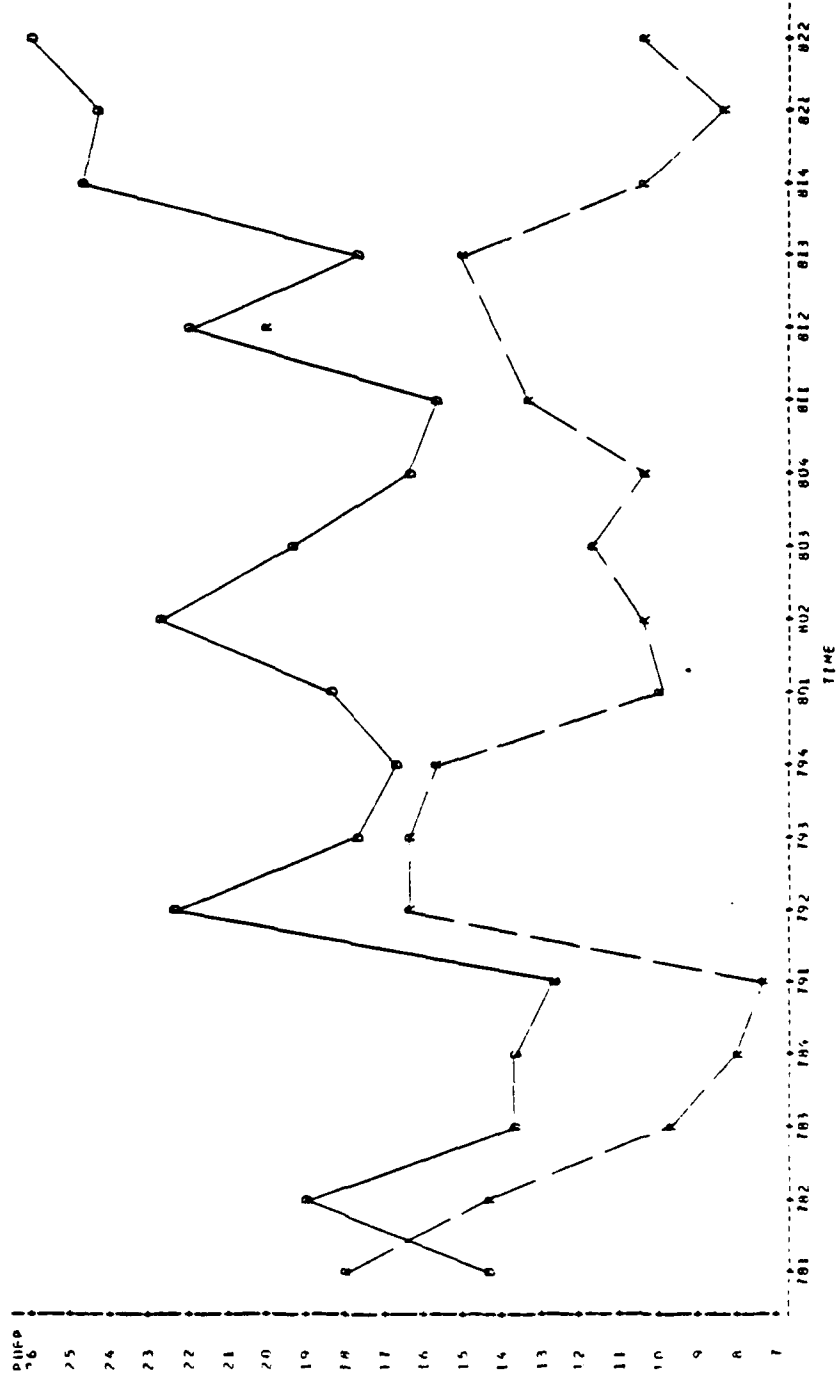


CV 41 MIDWAY

STATISTICAL ANALYSIS SYSTEM

UIC-03343

PLOT OF PREP TIME SYMBOL USED IS D
 PLOT OF PREP TIME SYMBOL USED IS R

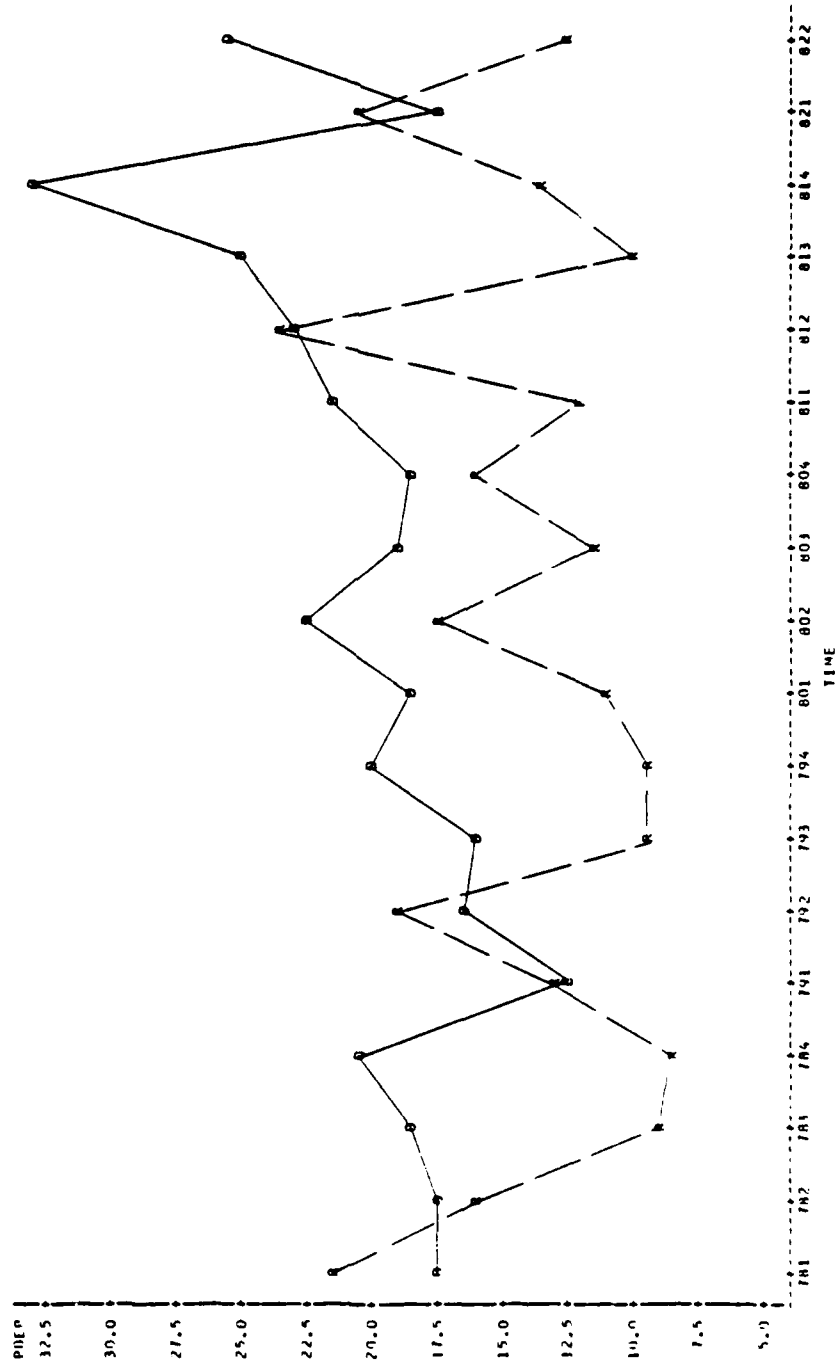


CV 43 CORAL SEA

STATISTICAL ANALYSIS SYSTEM

UIC-03359

PLOT OF PREP*TIME SYMBOL USED IS O
 PLOT OF PREP+TIME SYMBOL USED IS R

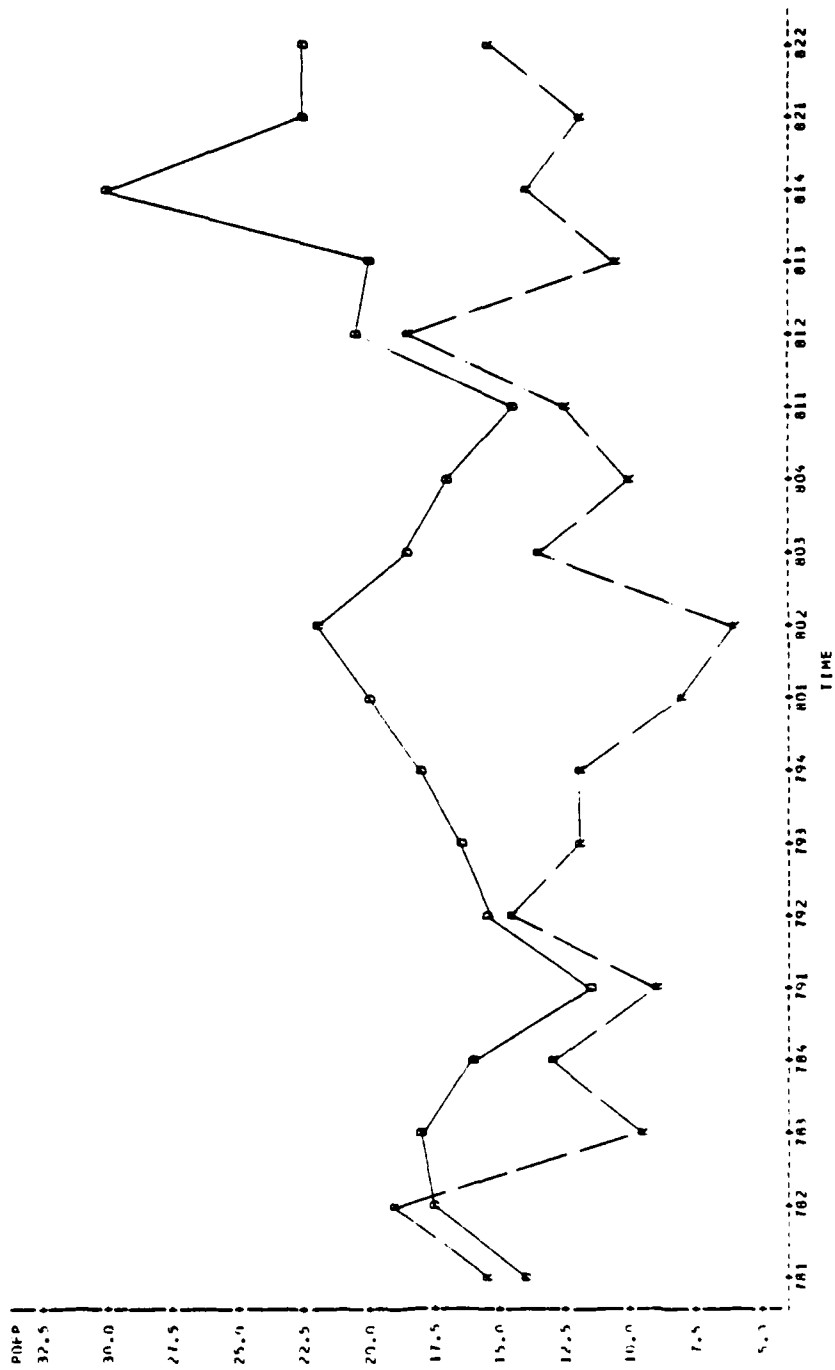


CV 59 FORRESTAL

STATISTICAL ANALYSIS SYSTEM

UIC-03368

PLOT OF PREP TIME SYMBOL USED IS R

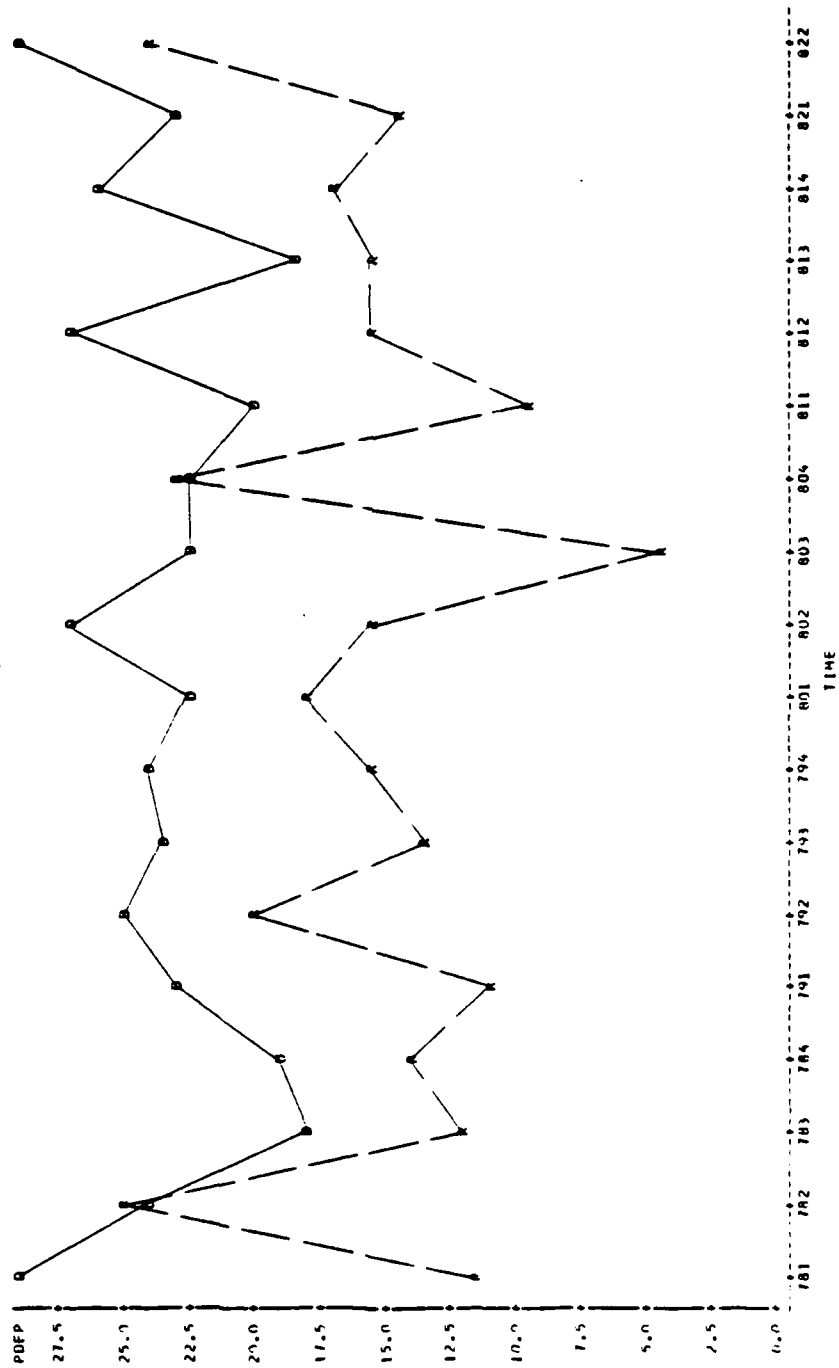


CVN 68 NIMITZ

STATISTICAL ANALYSIS SYSTEM

UTC=0421

PLOT OF PREP TIME SYMBOL USED IS D
 PLOT OF PREP TIME SYMBOL USED IS R

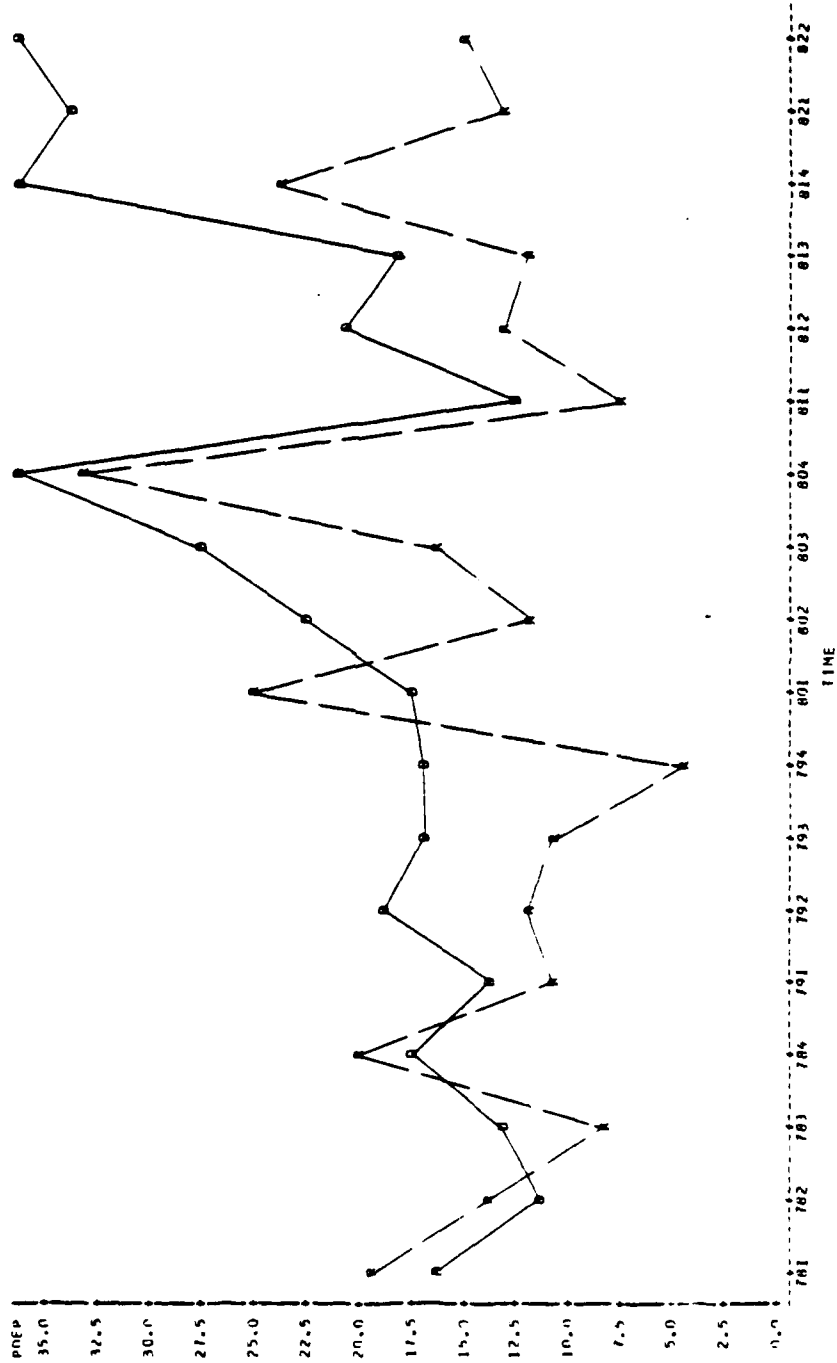


AS 12 SPERRY

STATISTICAL ANALYSIS SYSTEM

UIC=04628

PLOT OF PDEPOTIME SYMBOL USED IS D
 PLOT OF PREPOTIME SYMBOL USED IS R



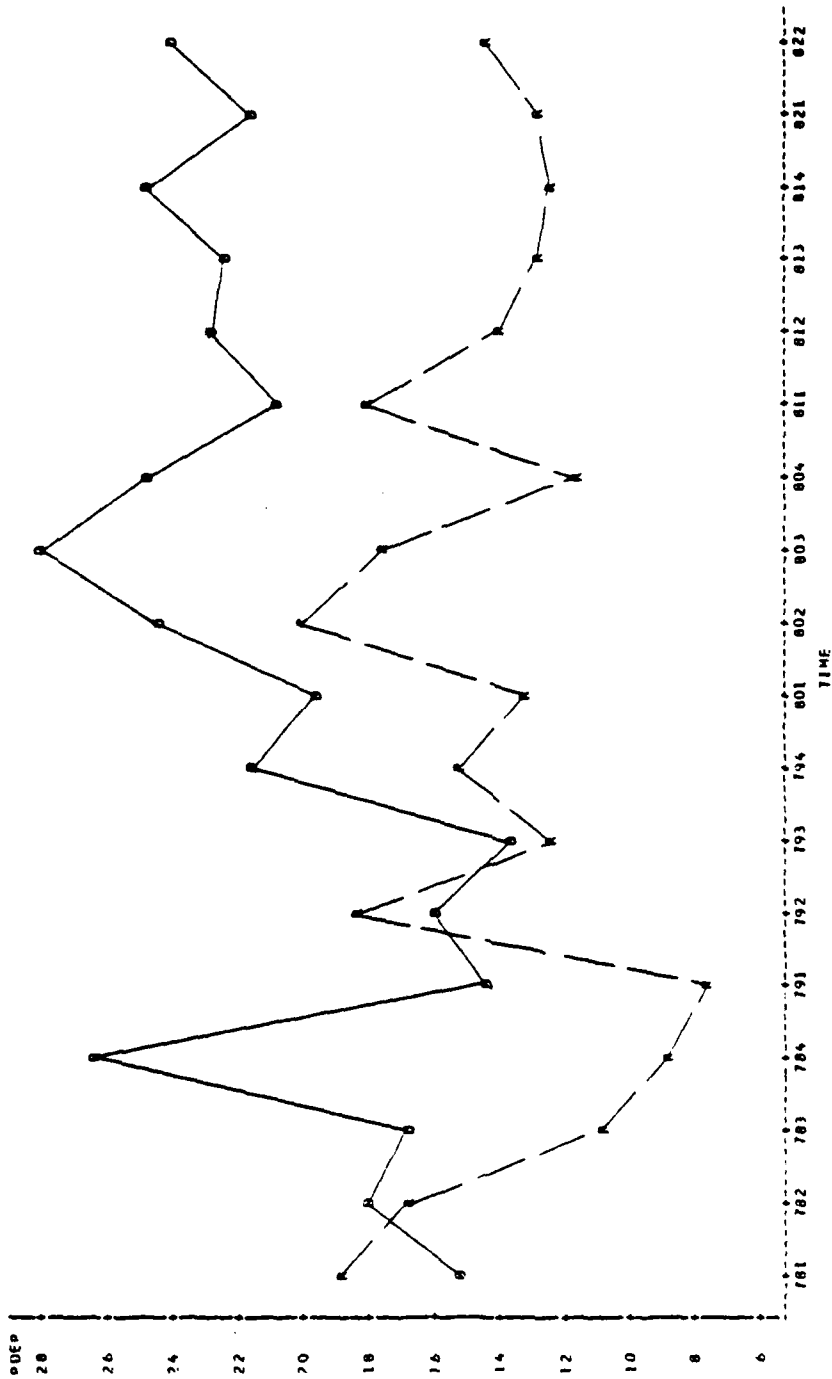
AS 18 ORION

STATISTICAL ANALYSIS SYSTEM

UIC-04637

PLOT OF PREPTIME SYMBOL USED IS D

PLOT OF PREPTIME SYMBOL USED IS R

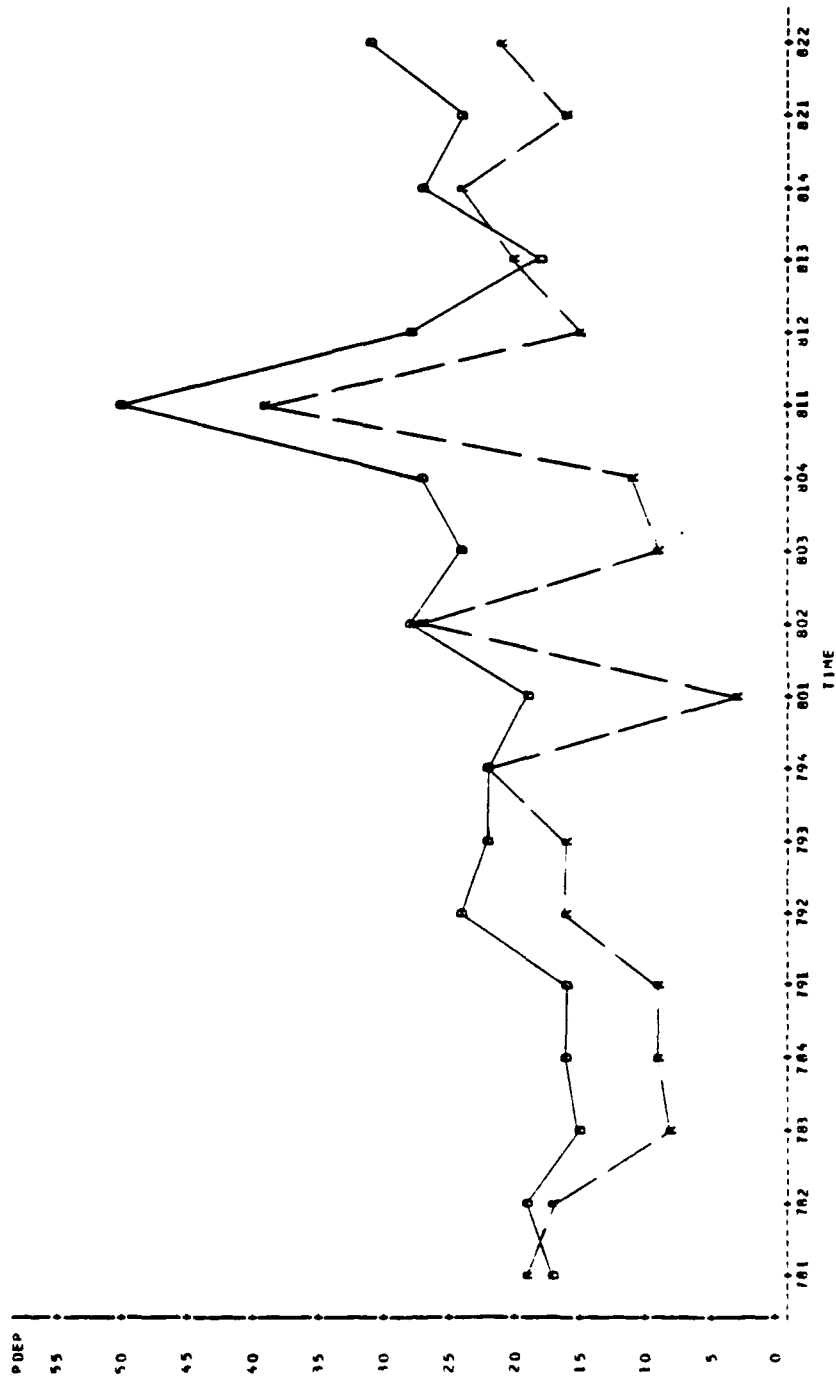


AD 17 PIEDMONT

STATISTICAL ANALYSIS SYSTEM

UIC-04665

PLOT OF PDEP*TIME SYMBOL USED IS D
PLOT OF PREP*TIME SYMBOL USED IS R

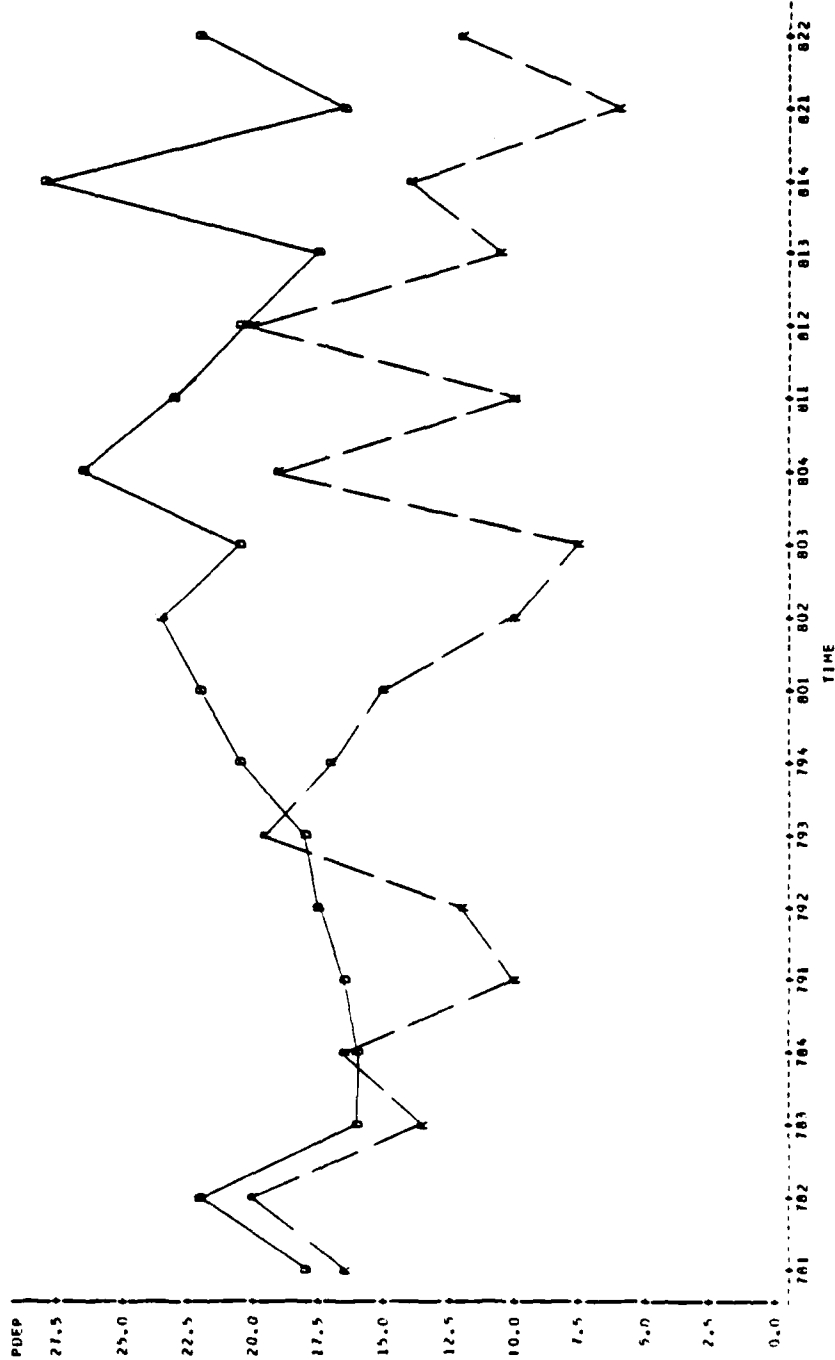


DDG 33 PARSONS

STATISTICAL ANALYSIS SYSTEM

UIC-06666

PLOT OF PREP TIME SYMBOL USED IS R
PLOT OF PREP TIME SYMBOL USED IS R

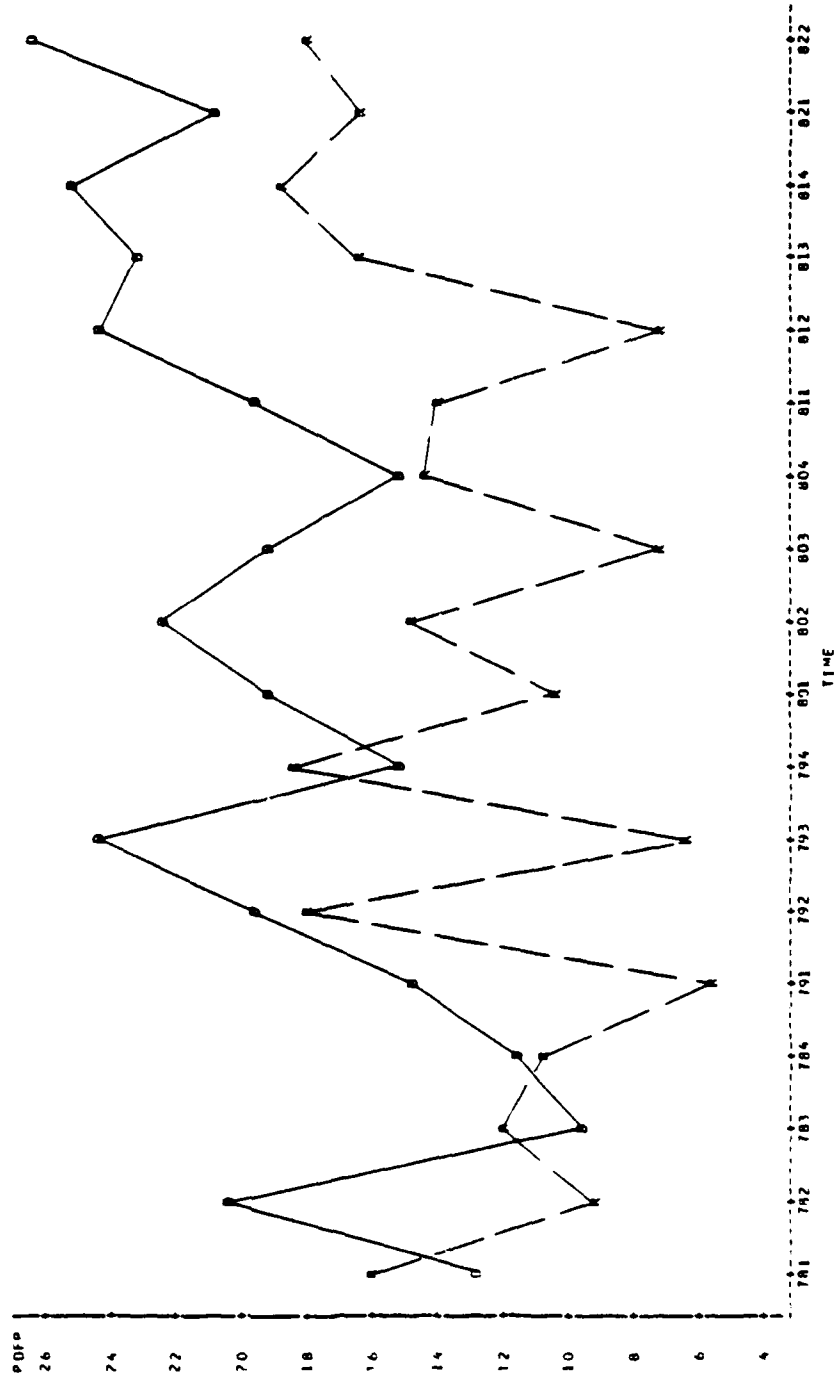


DD 950 RICHARD EDWARDS

STATISTICAL ANALYSIS SYSTEM

UIC=04074

PLOT OF PREP TIME SYMBOL USED IS R



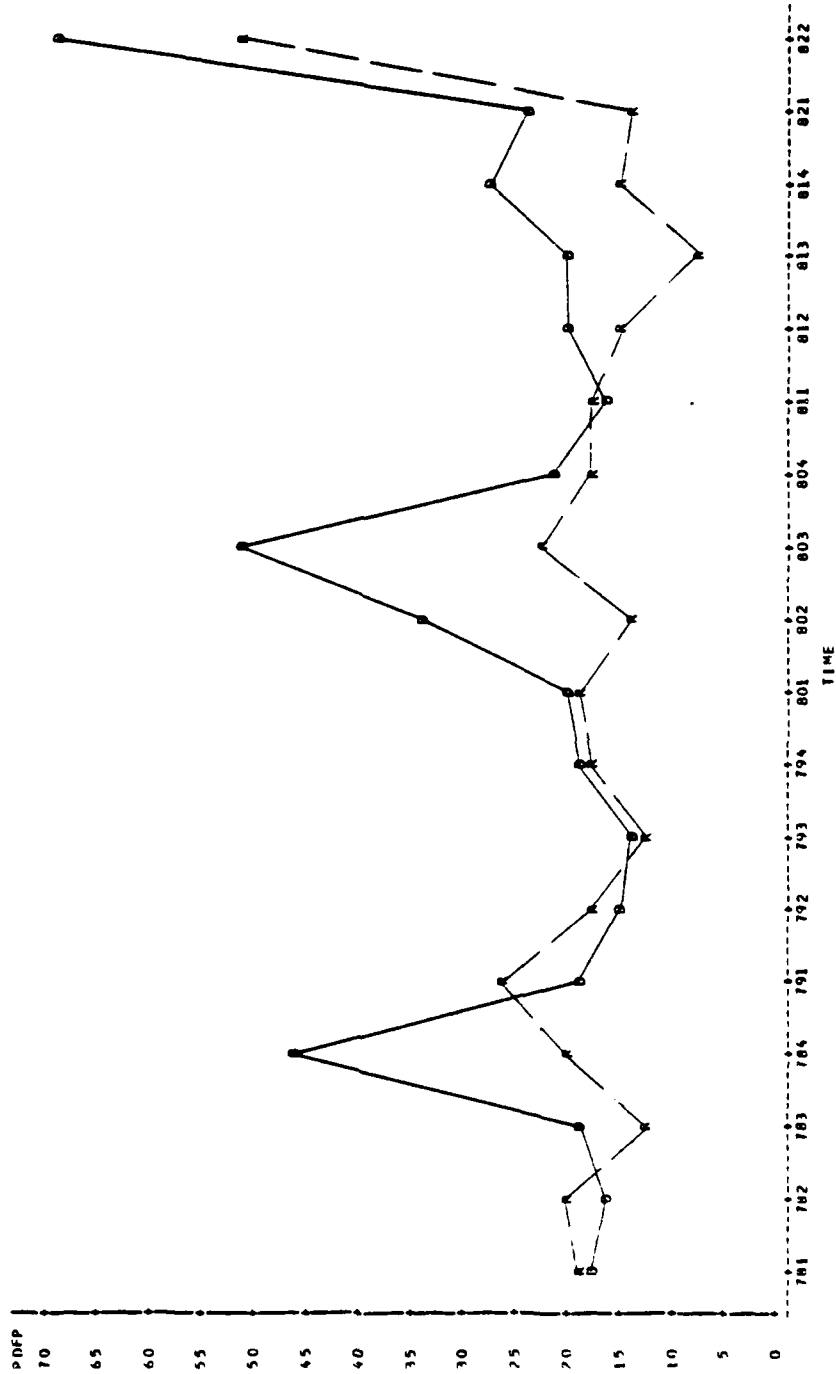
DDG 8 LYNDE MCCORMICK

STATISTICAL ANALYSIS SYSTEM

UIC-04689

PLOT OF PDEPTIME SYMBOL USED IS O

PLOT OF PREPTIME SYMBOL USED IS R

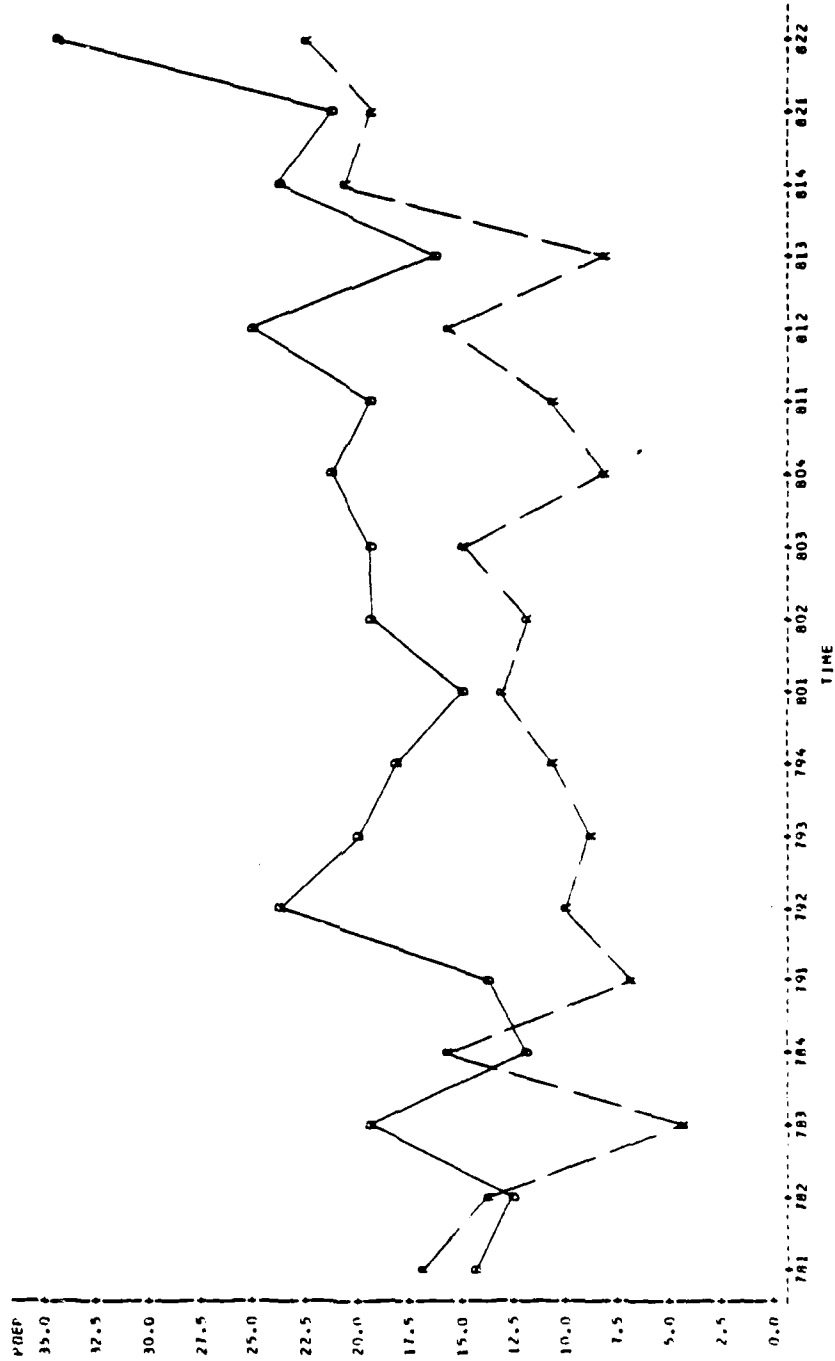


AS 31 HUNLEY

STATISTICAL ANALYSIS SYSTEM

UIC-04698

PLOT OF PREP TIME SYMBOL USED JS R

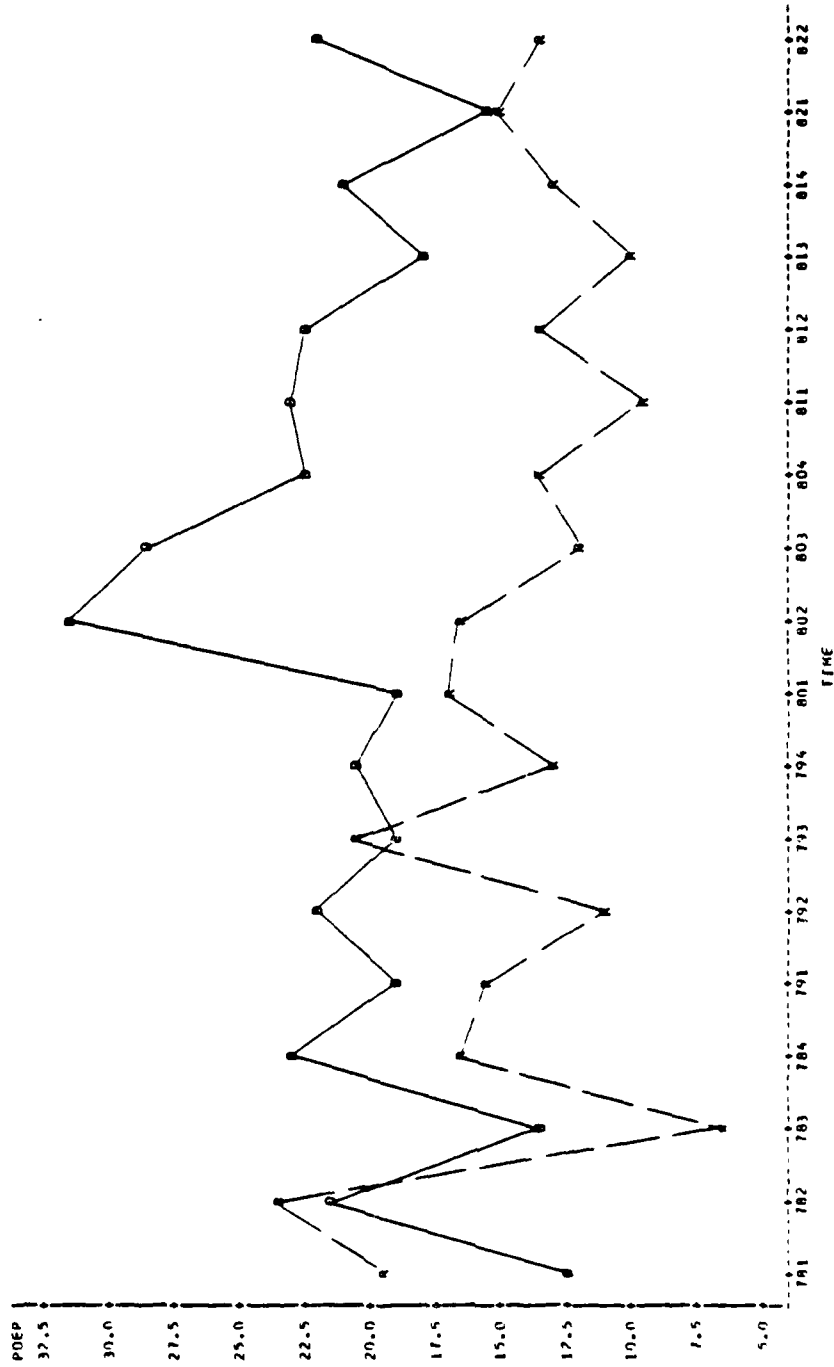


FFG 5 RICHARD L PAGE

STATISTICAL ANALYSIS SYSTEM

UIC-04951

PLOT OF PREP TIME SYMBOL USED IS R

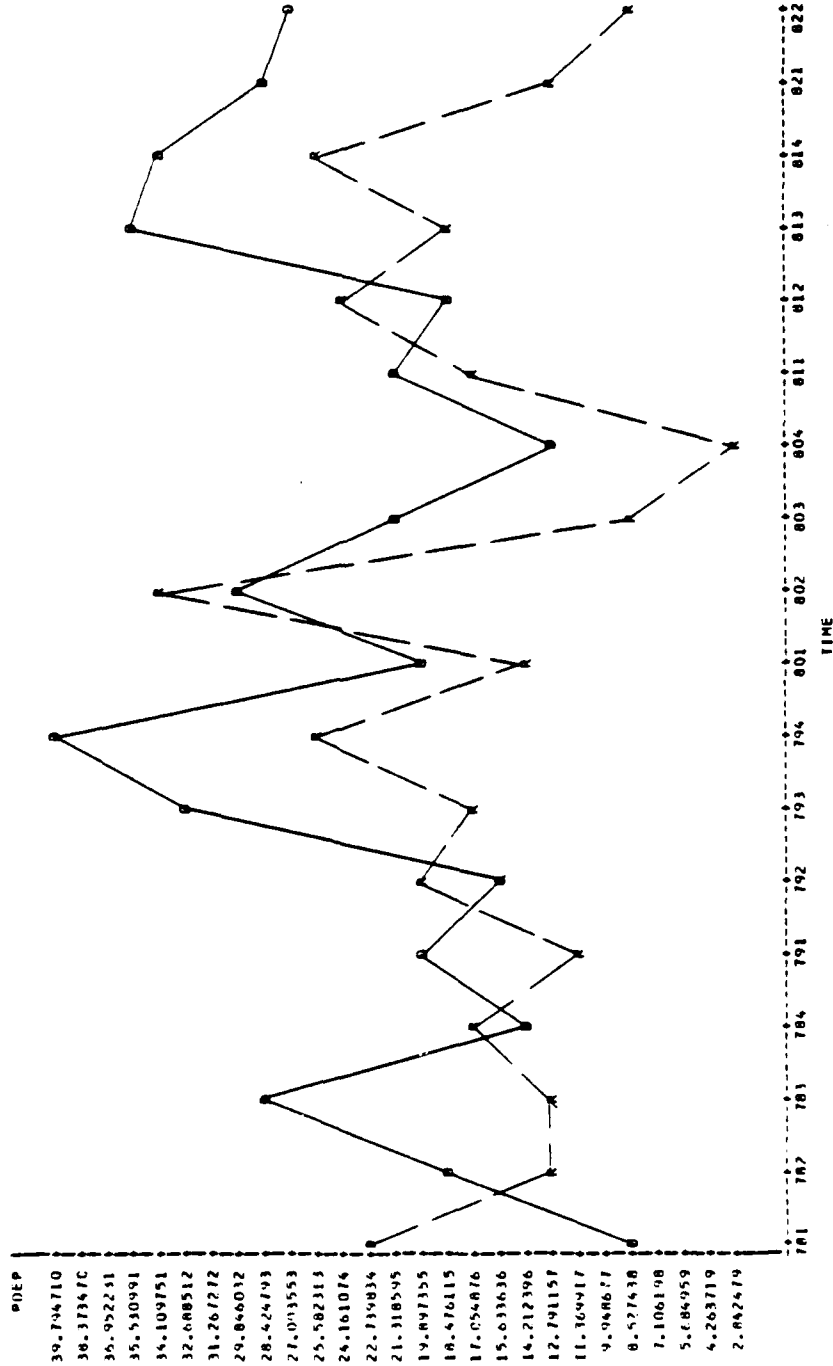


AO 51 ASHTABULA

STATISTICAL ANALYSIS SYSTEM

UIC-05604

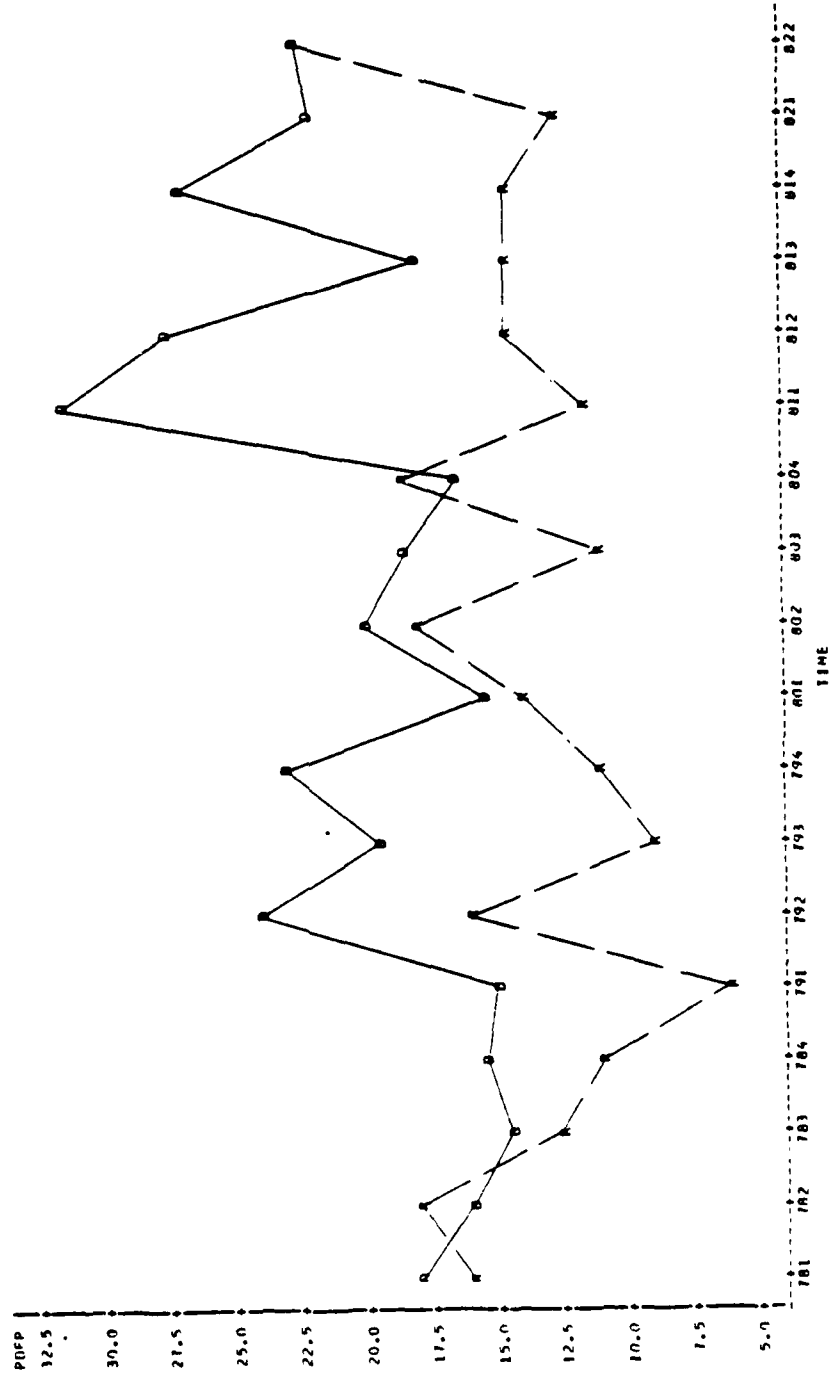
PLOT OF PUEP*TIME SYMBOL USED IS R



SS 581 BLUEBACK

STATISTICAL ANALYSIS SYSTEM
UIC-05833

PLOT OF PREPOTIME SYMBOL USED IS O
PLOT OF PREPOTIME SYMBOL USED IS R

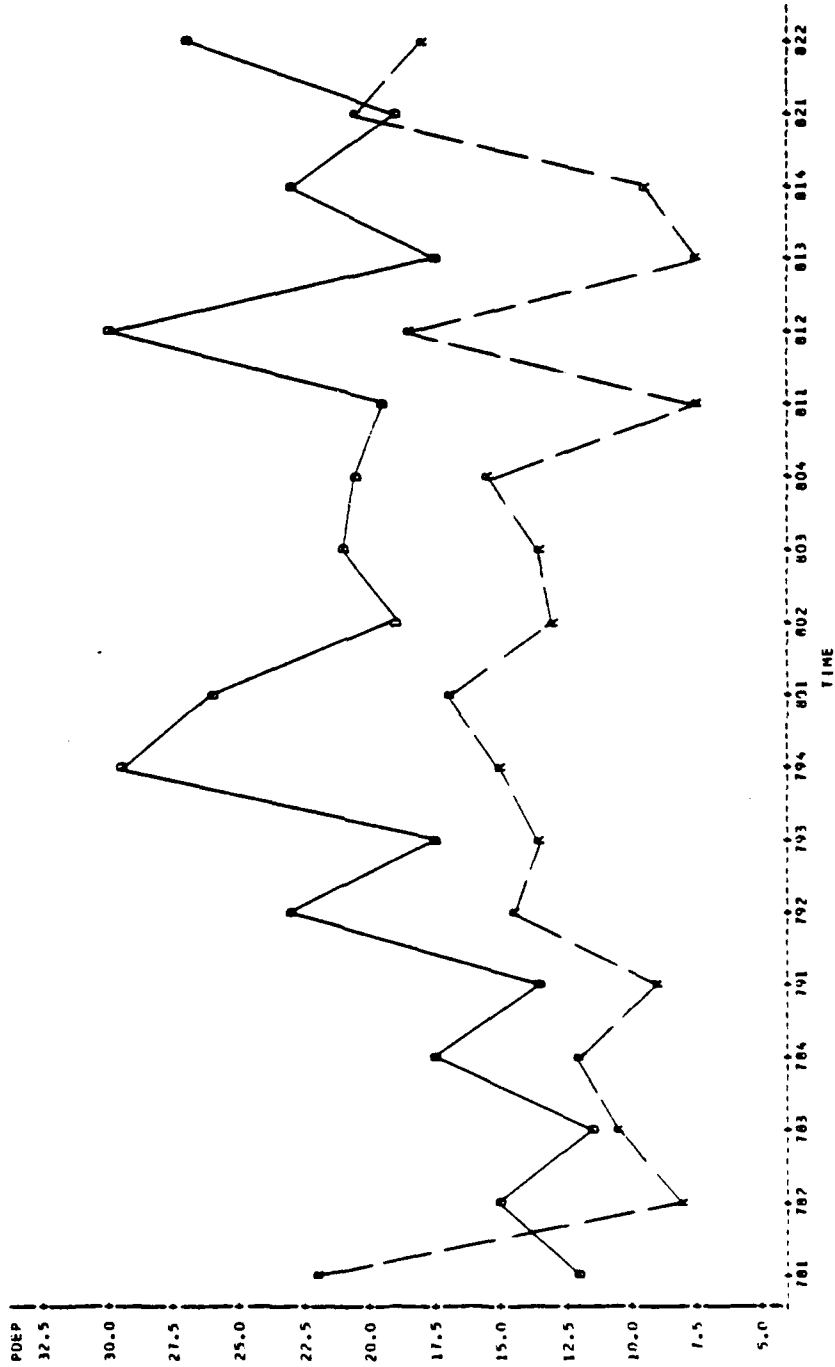


AOE 2 CAMDEN

STATISTICAL ANALYSIS SYSTEM

UIC-05836

PLOT OF PREP TIME SYMBOL USED IS R

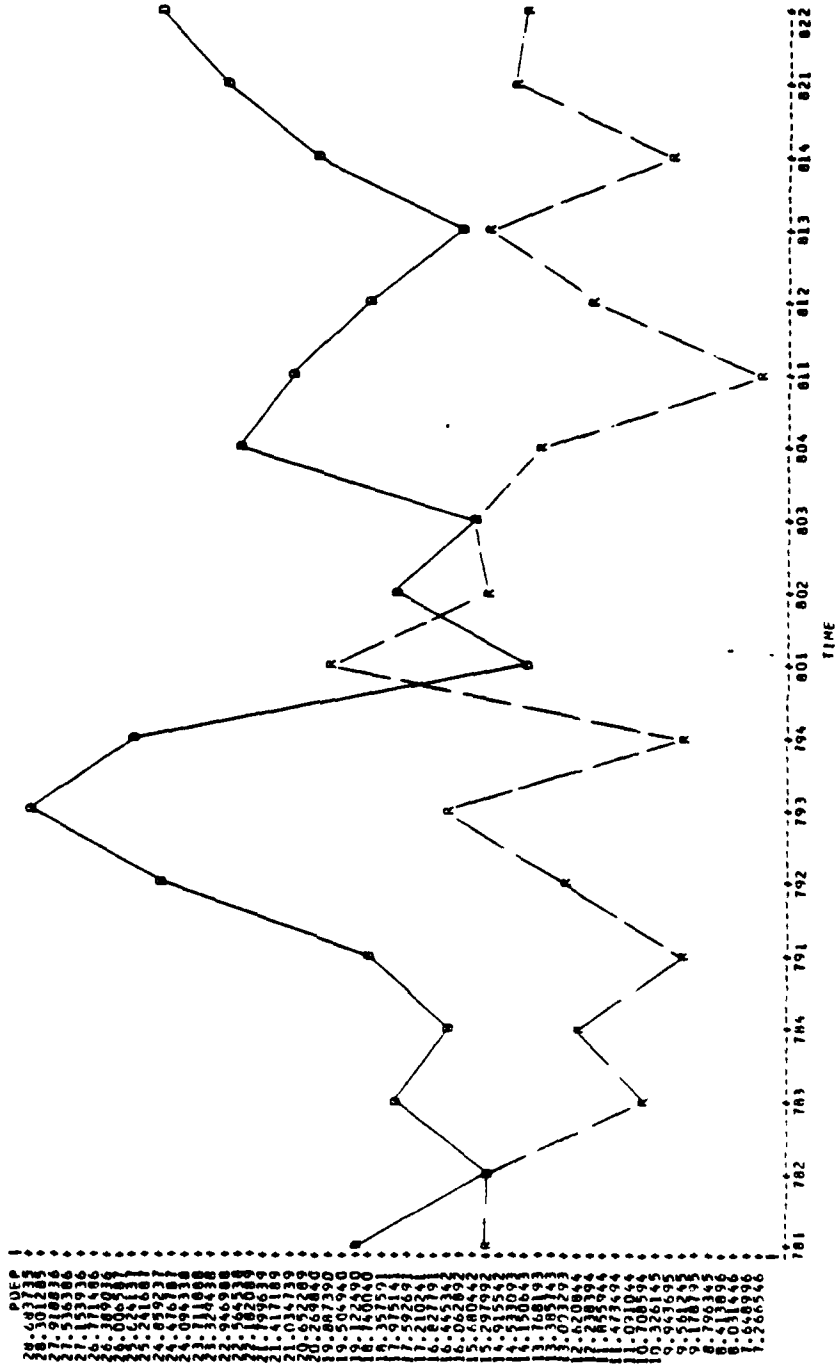


AFS 5 CONCORD

STATISTICAL ANALYSIS SYSTEM

UIC-05847

PLOT OF PREP TIME SYMBOL USED IS D



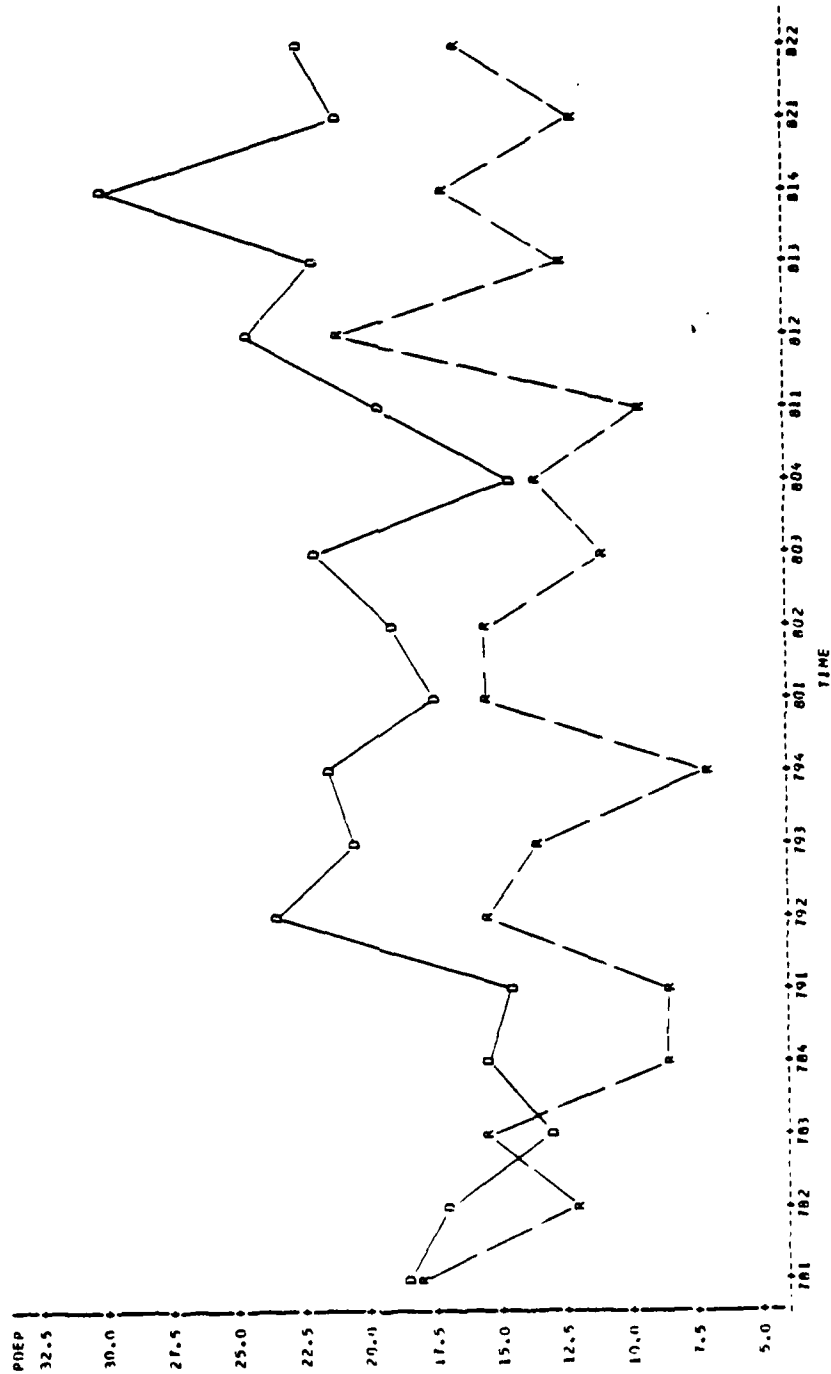
LKA 116 ST LOUIS

STATISTICAL ANALYSIS SYSTEM

UIC=07103

PLOT OF PREP TIME SYMBOL USED IS D

PLOT OF PREP TIME SYMBOL USED IS R



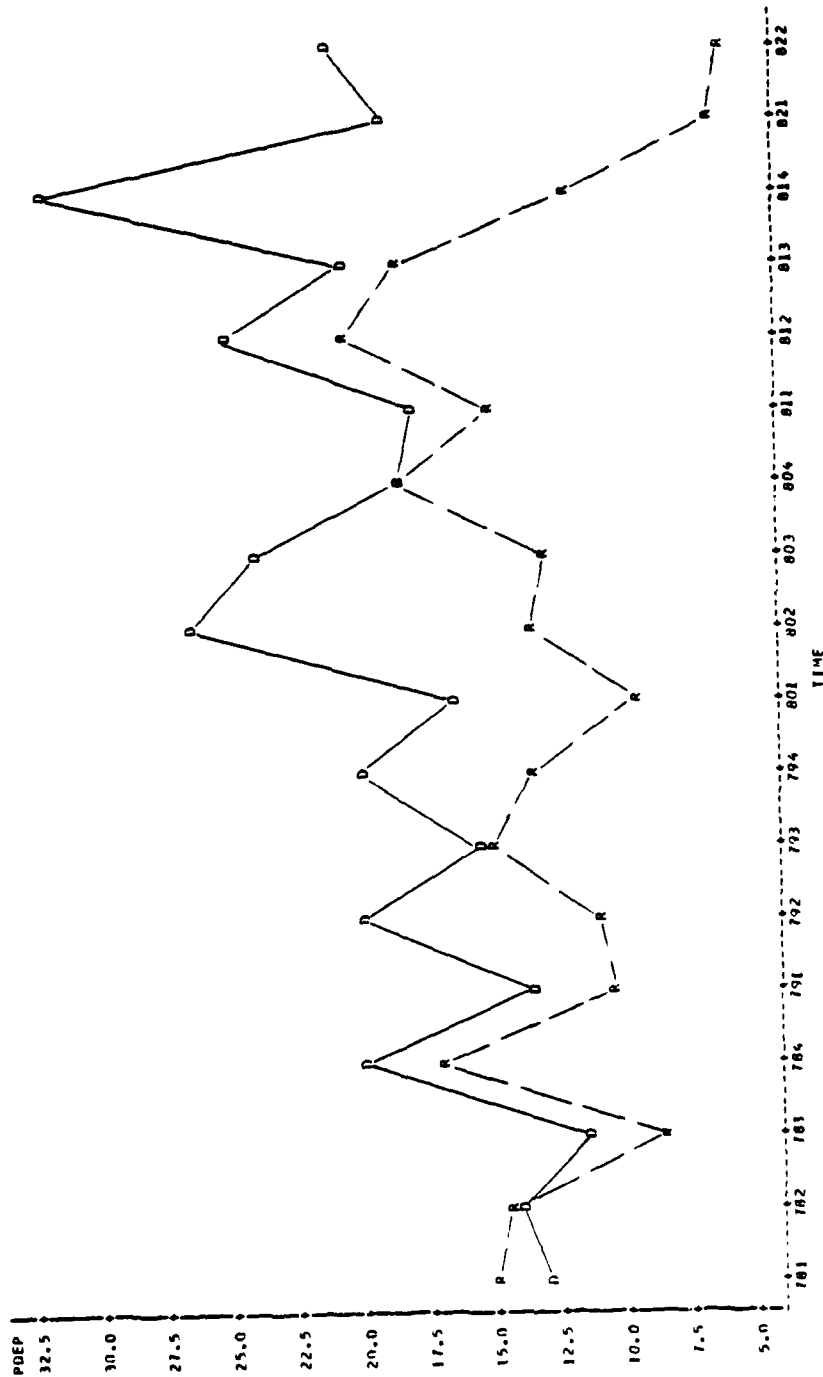
LPD 9 DENVER

STATISTICAL ANALYSIS SYSTEM

UIC-07331

PLOT OF PREPOTIME SYMBOL USED IS D

PLOT OF PREPOTIME SYMBOL USED IS R

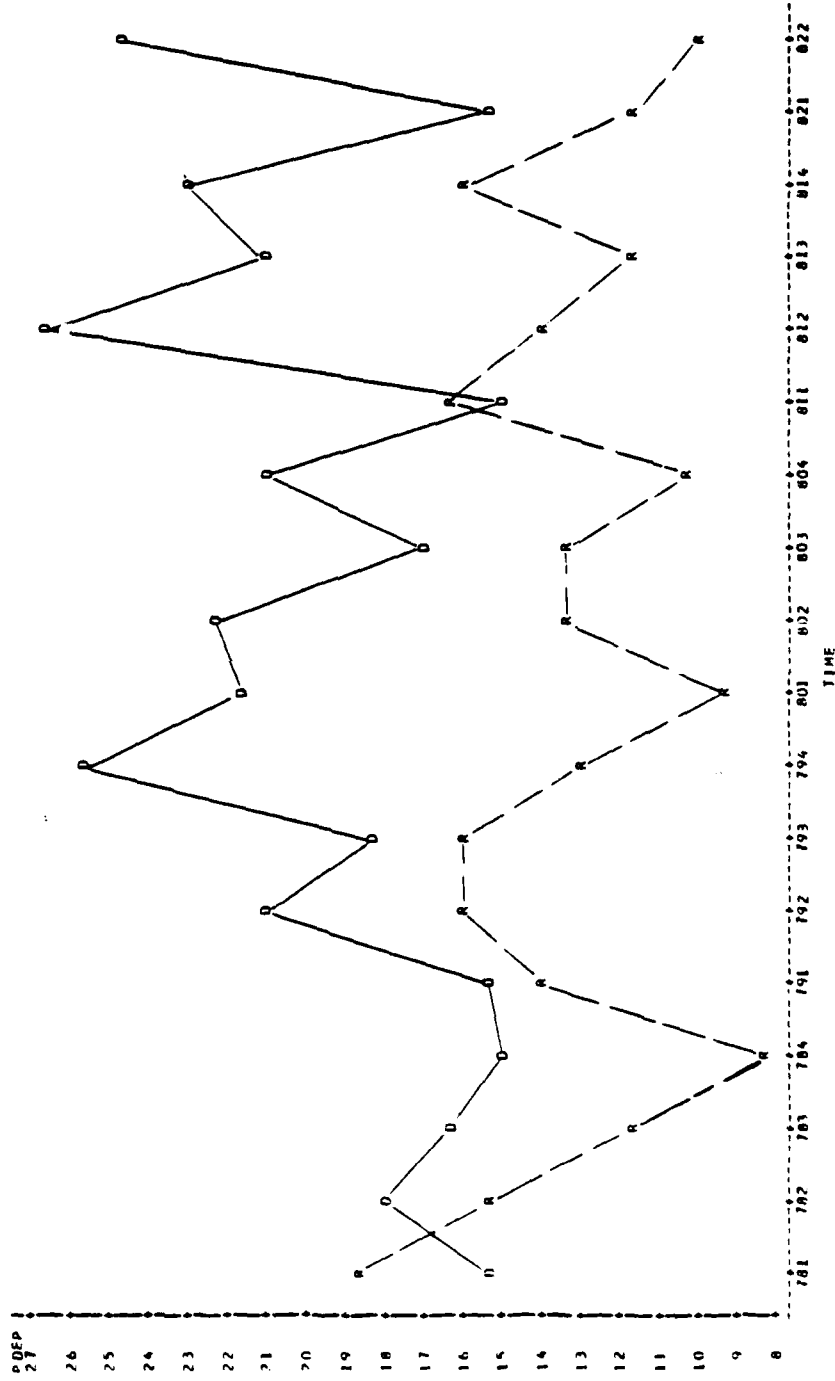


LPH 3 OKINAWA

STATISTICAL ANALYSIS SYSTEM

UIC-08808

PLOT OF PREP TIME SYMBOL USED IS R

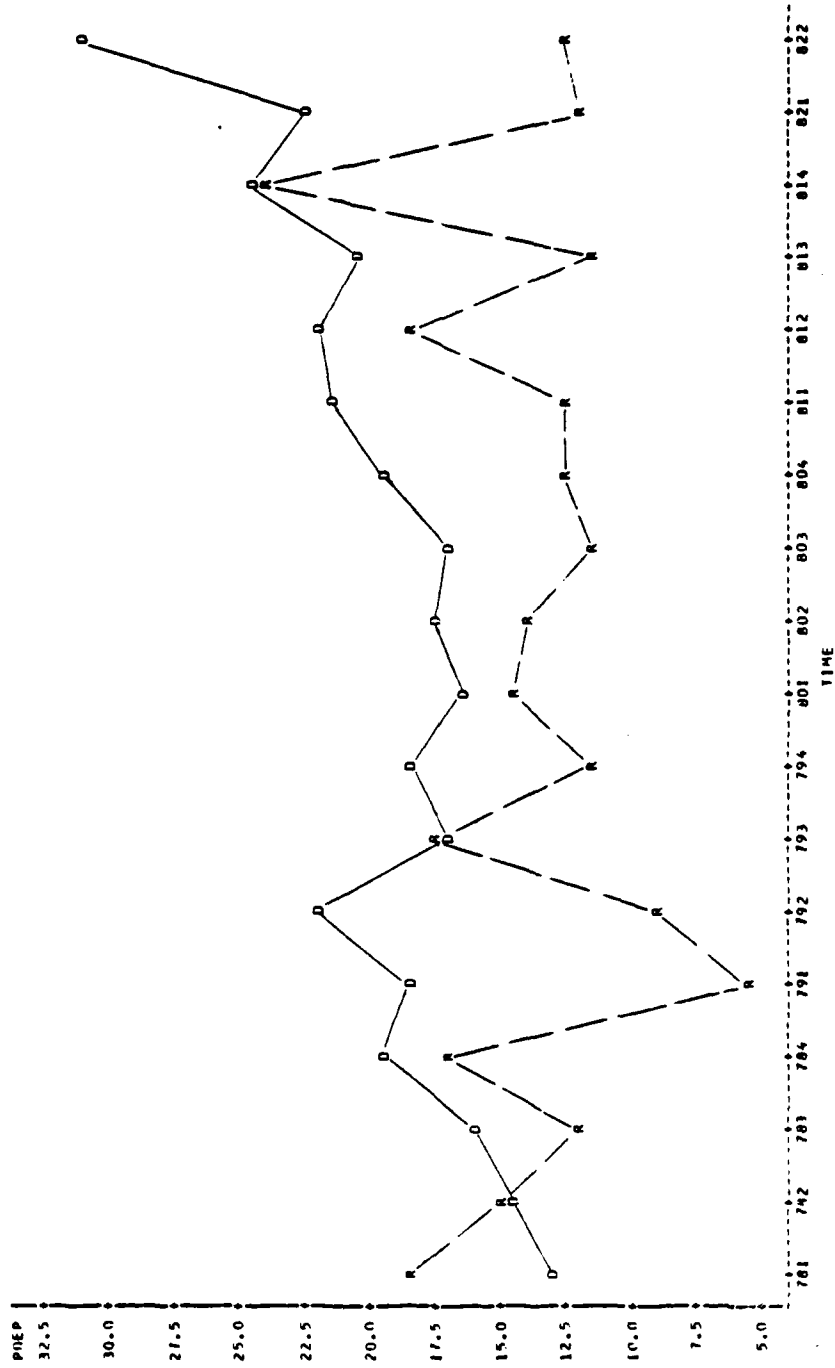


AR 5 VULCAN

STATISTICAL ANALYSIS SYSTEM

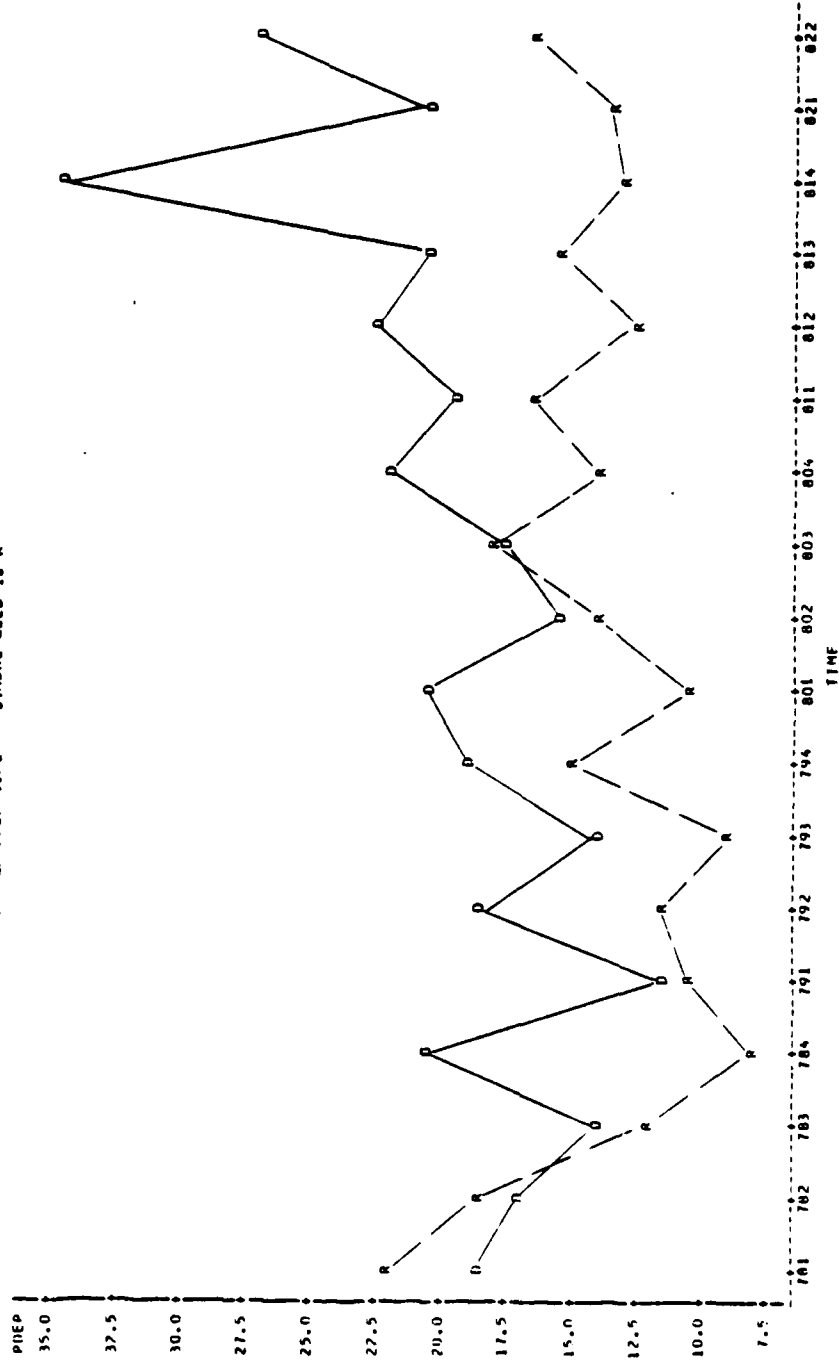
UIC-08809

PLOT OF PREP TIME SYMBOL USED IS D



AR 7 HECTOR

STATISTICAL ANALYSIS SYSTEM
 UIC-20012
 PLOT OF PREP TIME SYMBOL USED IS R

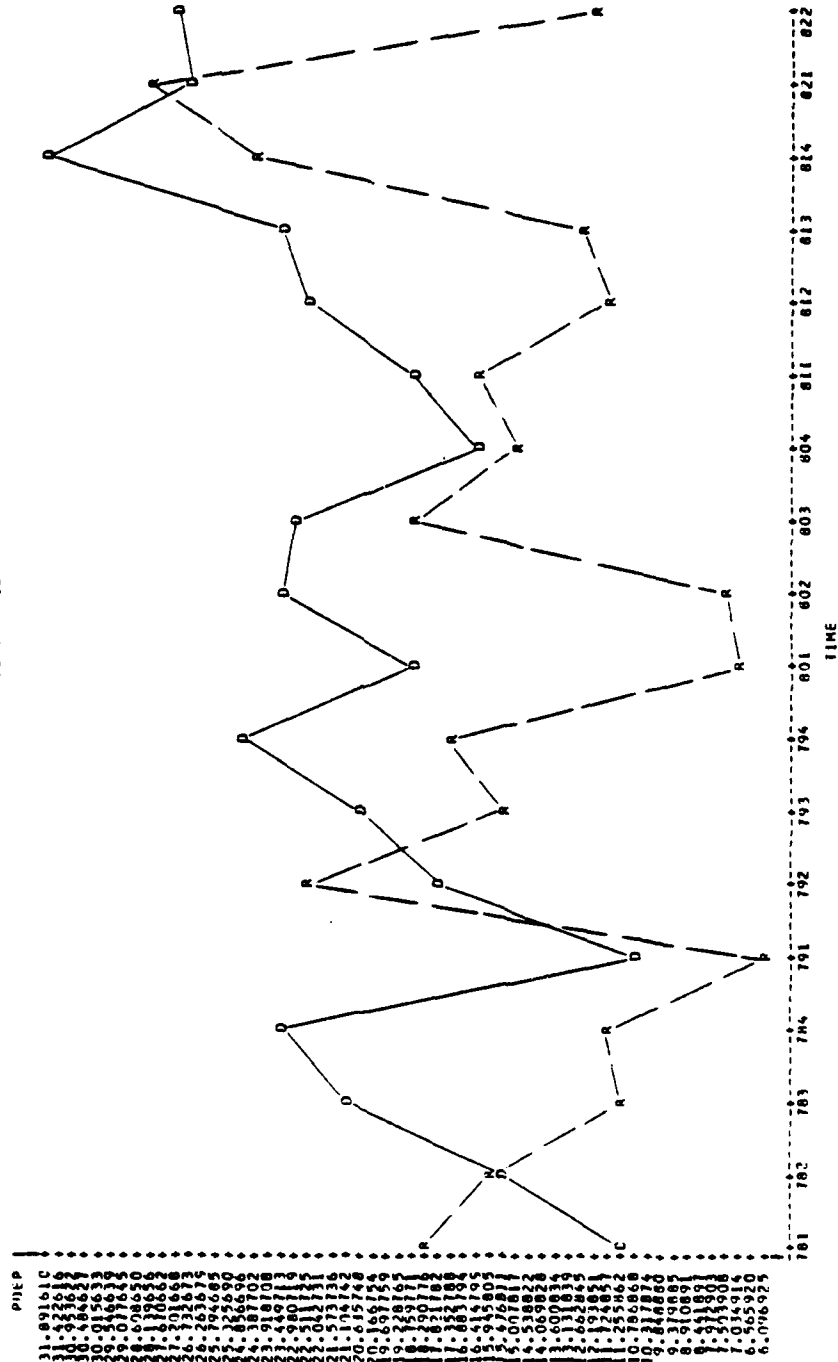


LSD 37 PORTLAND

STATISTICAL ANALYSIS SYSTEM

UIC-20050

PLOT OF PDEP*TIME SYMBOL USED IS D
 PLOT OF PREP*TIME SYMBOL USED IS R

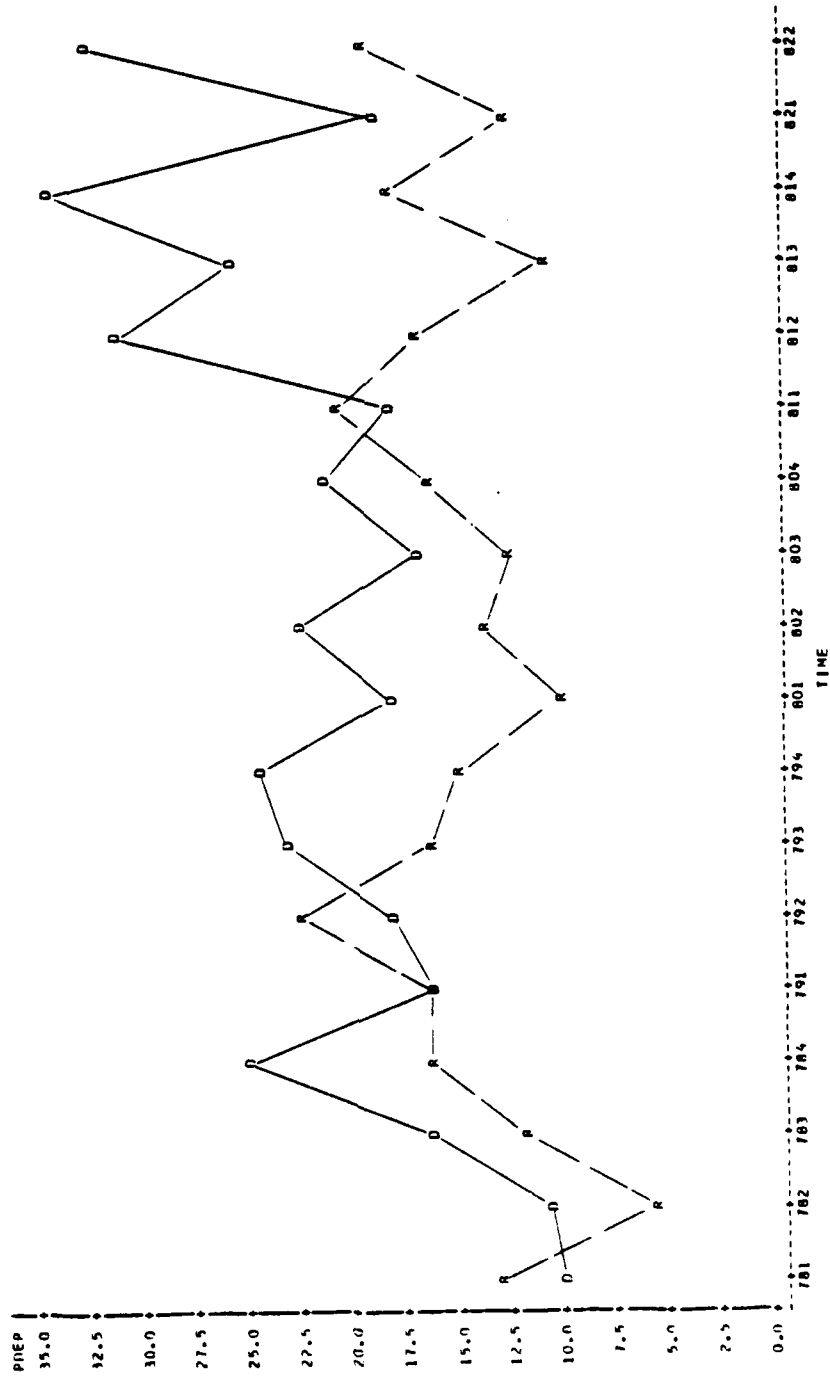


FF 1079 BOWEN

STATISTICAL ANALYSIS SYSTEM

UIC-2009B

PLOT OF PREPOTINE
SYMBOL USED IS R

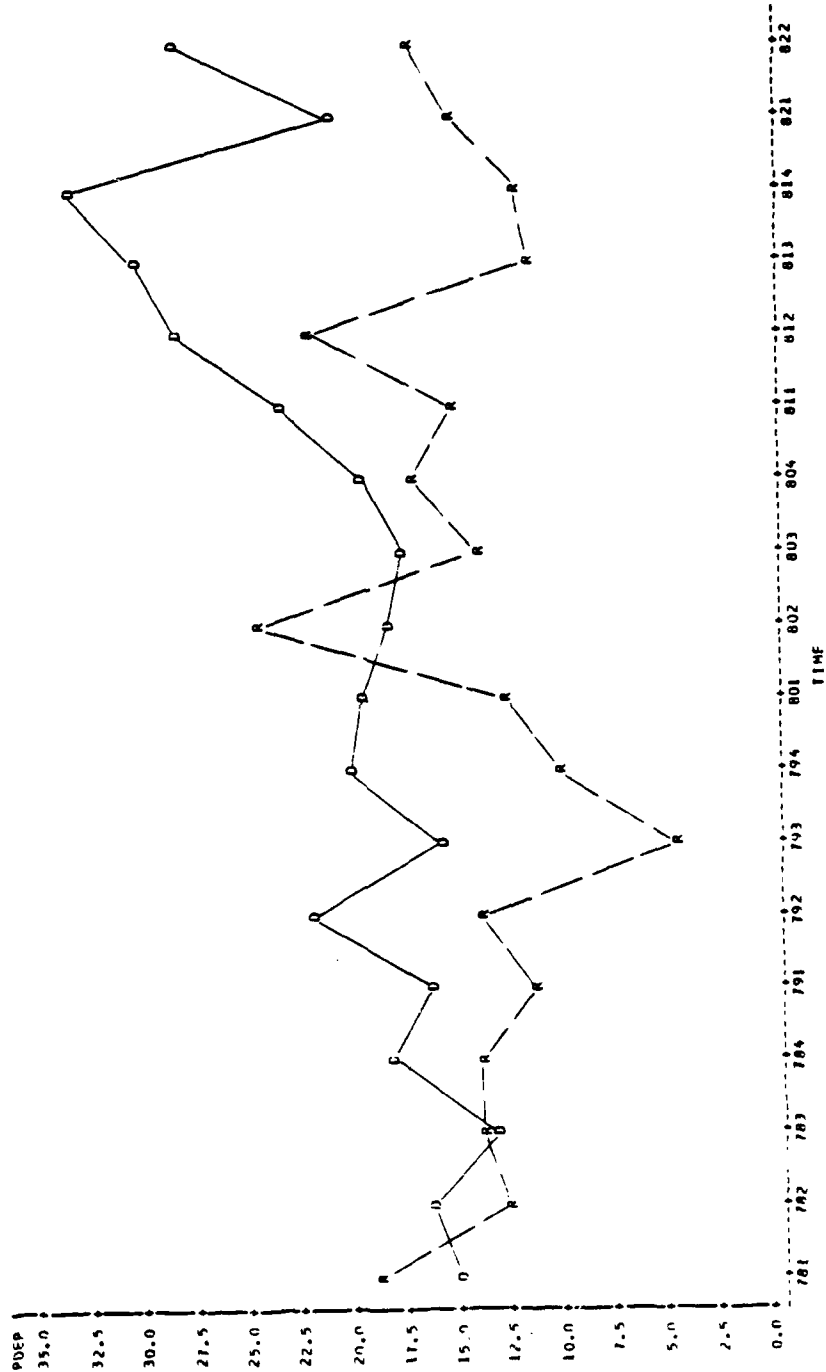


FF 1087 KIRK

STATISTICAL ANALYSIS SYSTEM

UIC-20112

PLOT OF PREP TIME SYMBOL USED IS R



AE 29 MOUNT HOOD

AD-A125 733

AN ANALYSIS OF THE EFFECT OF PERSONNEL TURBULENCE ON
THE PERFORMANCE OF OPERATIONAL UNITS(U) NAVAL
POSTGRADUATE SCHOOL MONTEREY CA W R REEVES DEC 82

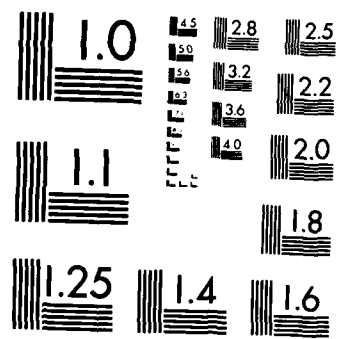
2/2

UNCLASSIFIED

F/G 5/9

NL

END
FILMED
25
R
DTC

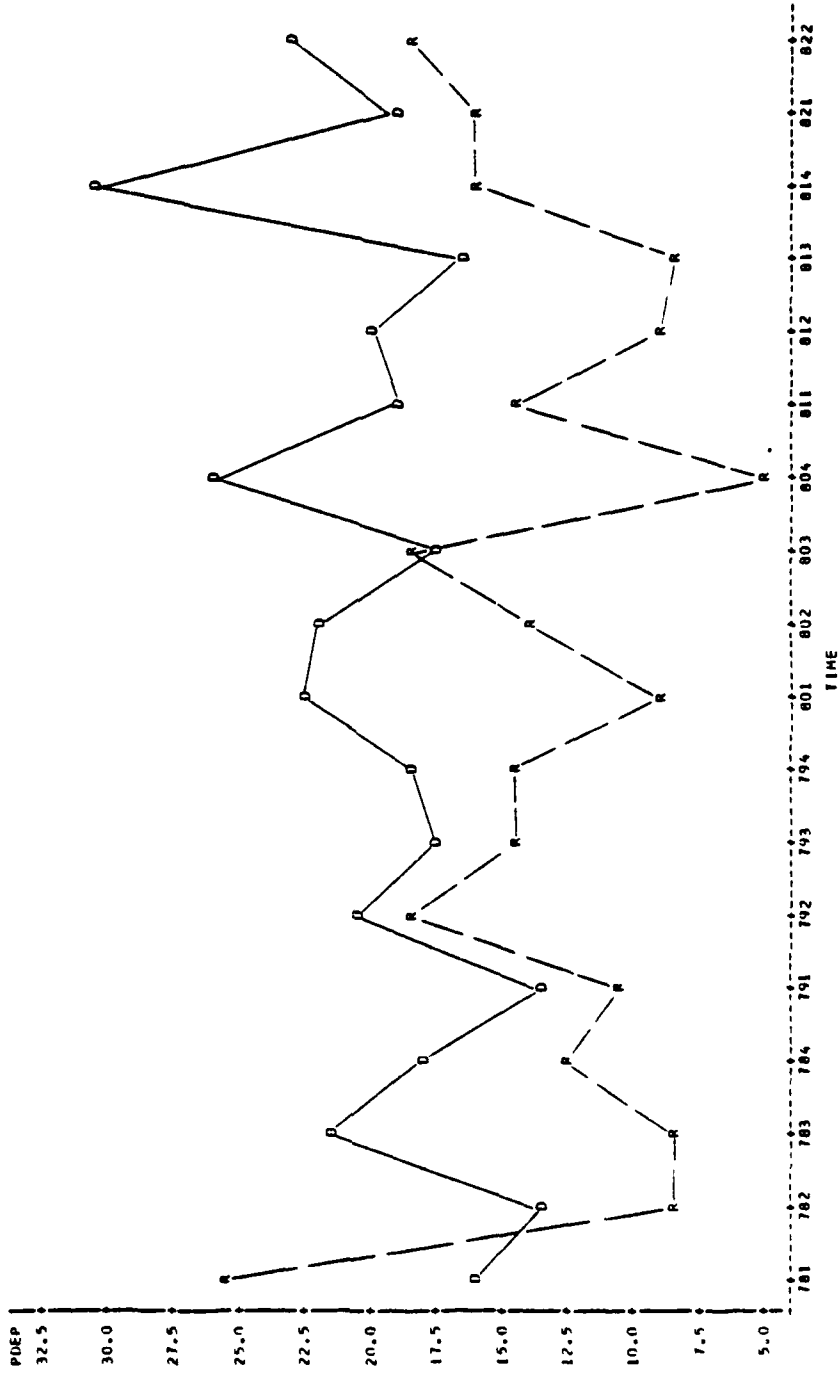


MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS 1963 A

STATISTICAL ANALYSIS SYSTEM

UIC-20123

PLOT OF PDEPOTIME SYMBOL USED IS D
 PLOT OF PREPOTIME SYMBOL USED IS R

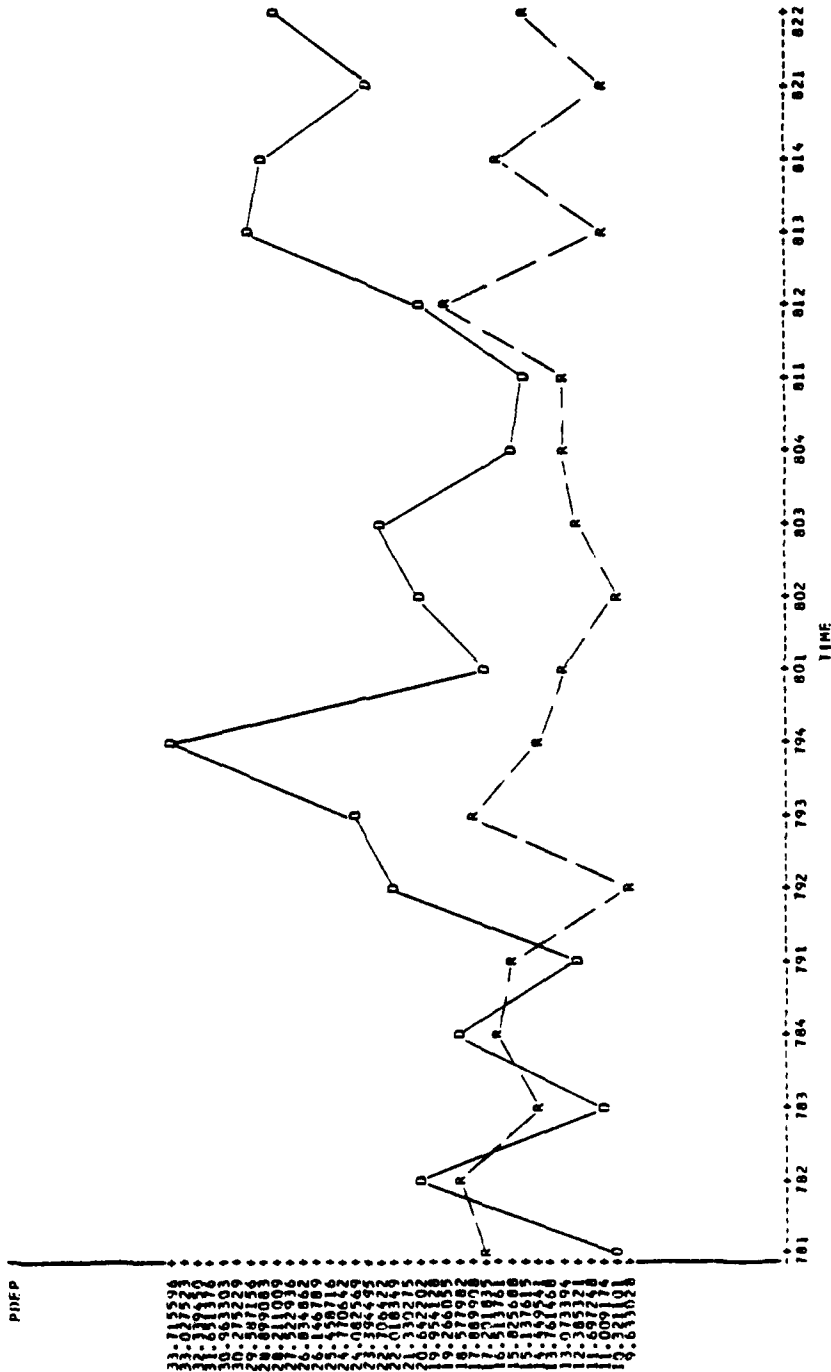


AOR 4 SAVANNAH

STATISTICAL ANALYSIS SYSTEM

UIC-20143

PLOT OF PREP TIME SYMBOL USED IS R

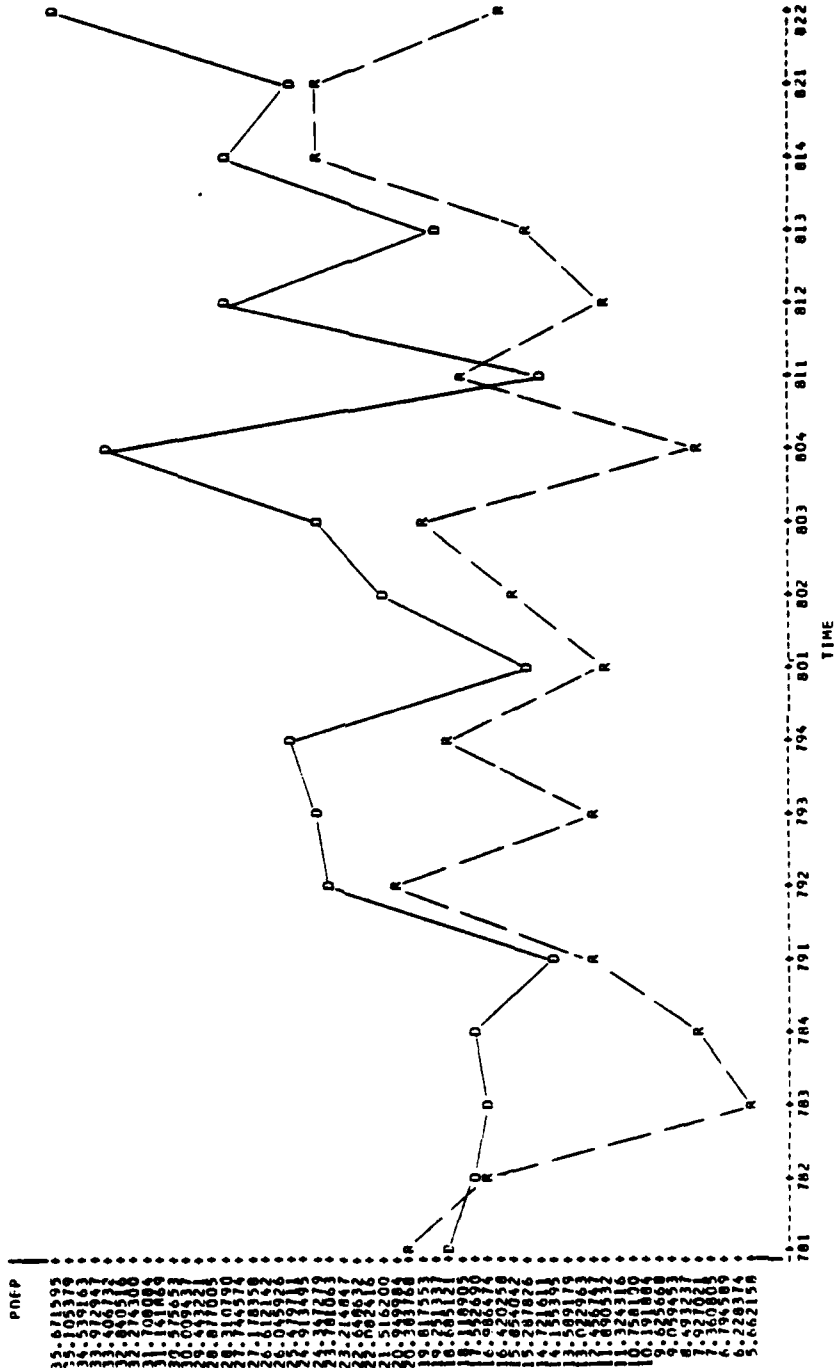


ASR 21 PIGEON

STATISTICAL ANALYSIS SYSTEM.

UIC-20223

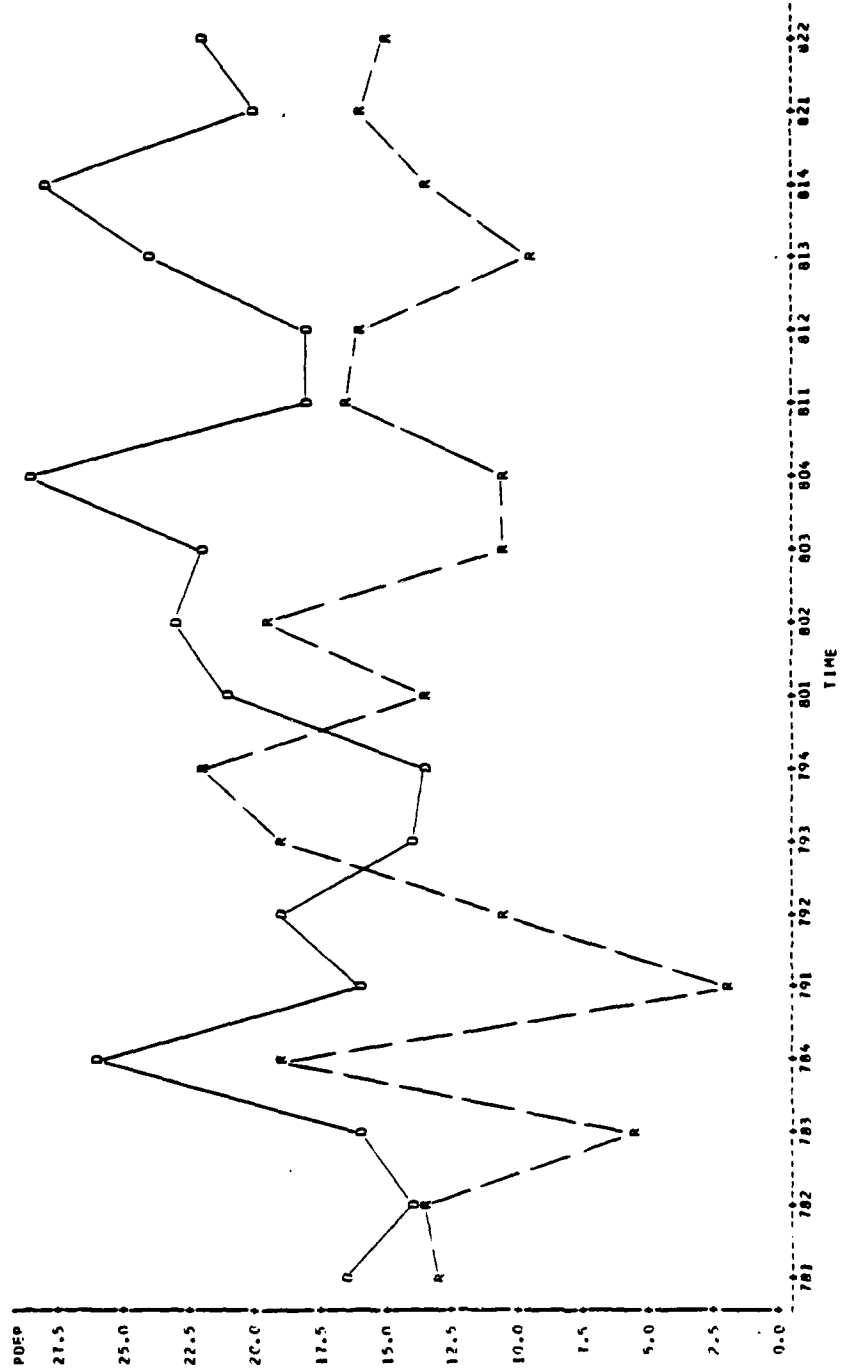
PLOT OF PREP TIME SYMBOL USED IS R



LST 1197 BARNSTABLE CTY

STATISTICAL ANALYSIS SYSTEM
UIC-20576

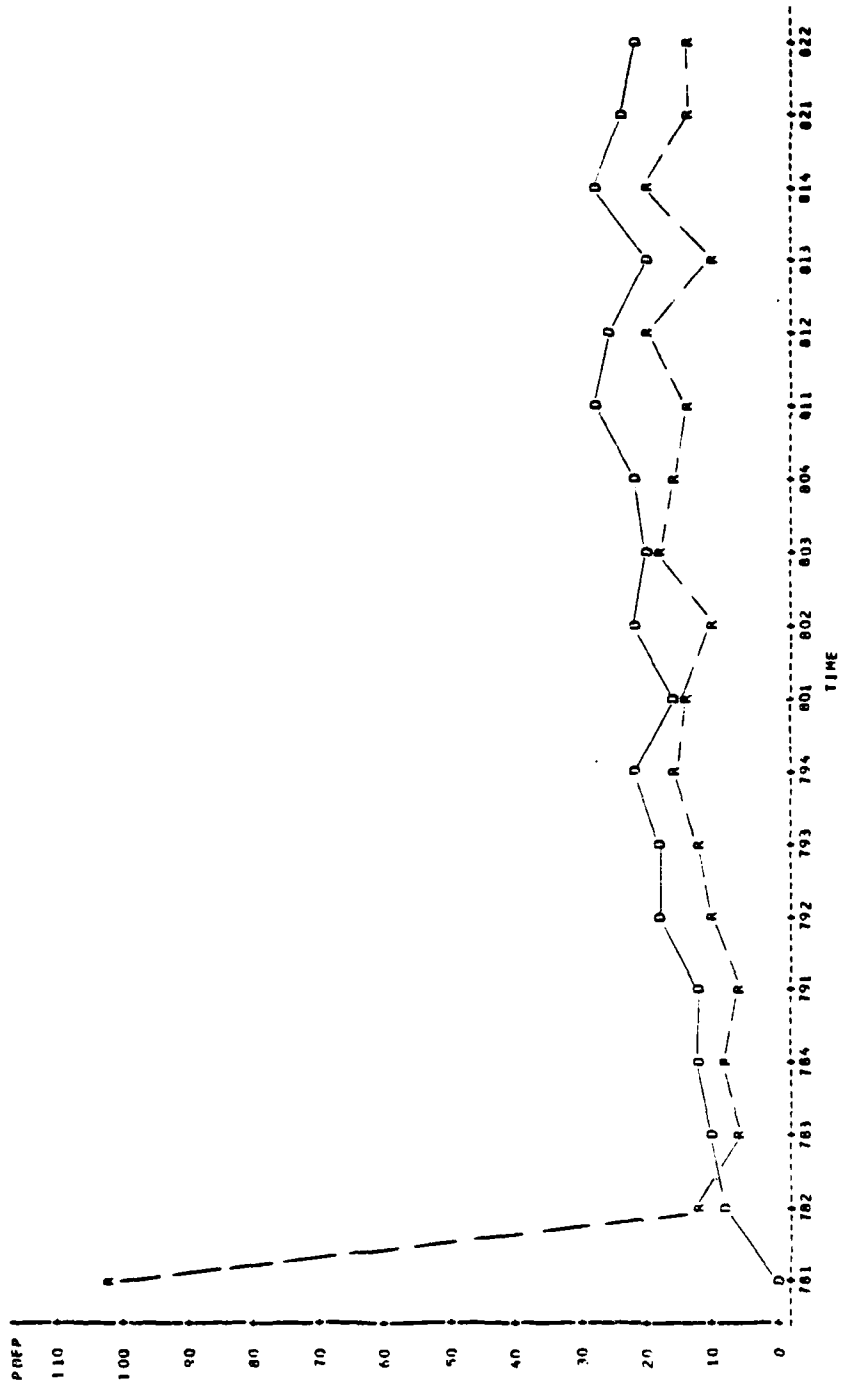
PLOT OF PREP TIME SYMBOL USED IS R



DD 965 KINKAID

STATISTICAL ANALYSIS SYSTEM

UIC-20632
 PLOT OF PREP TIME SYMBOL USED IS D
 PLOT OF PREP TIME SYMBOL USED IS R

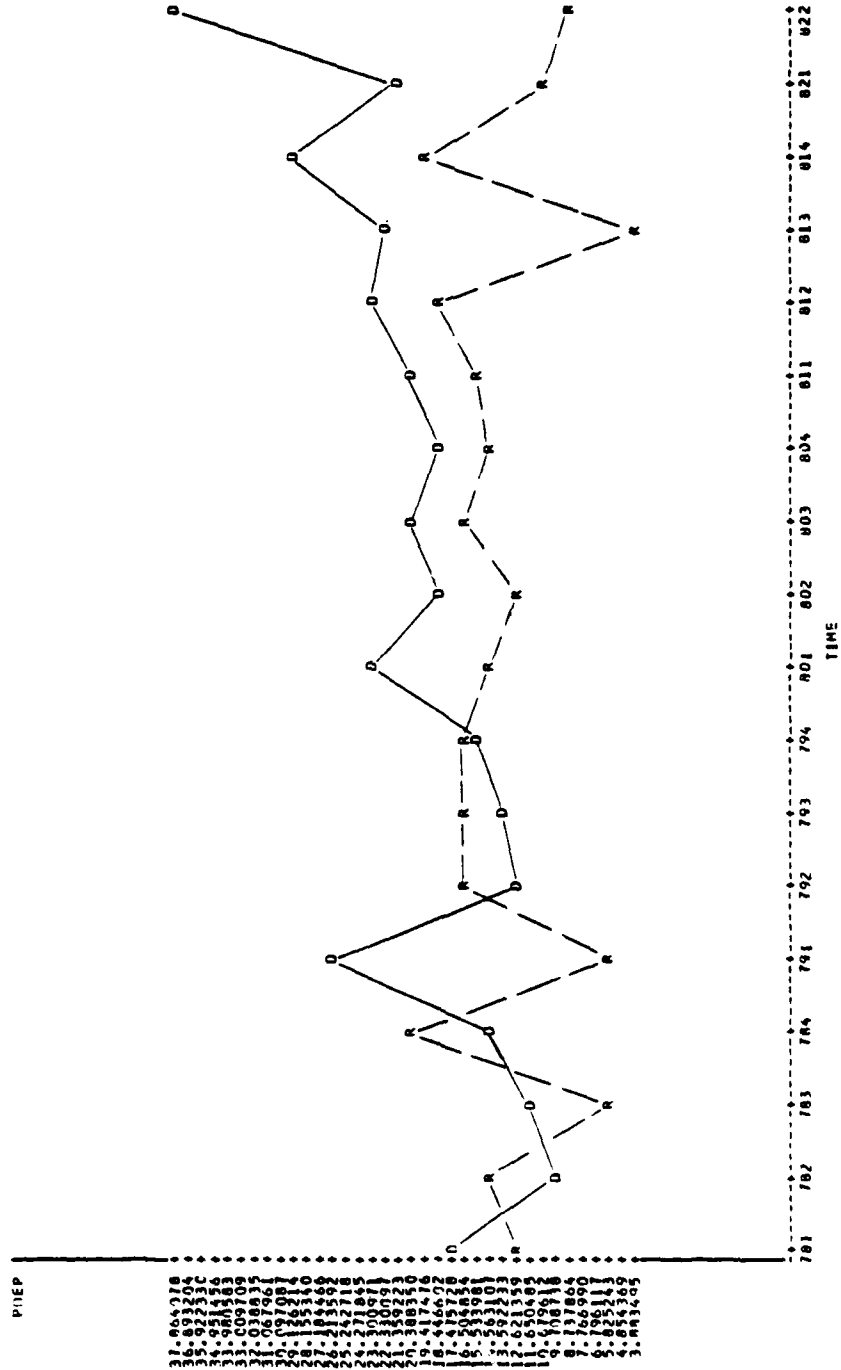


LHA 2 SAIPAN

STATISTICAL ANALYSIS SYSTEM

UIC-20642

PLOT OF PREP TIME SYMBOL USED IS R

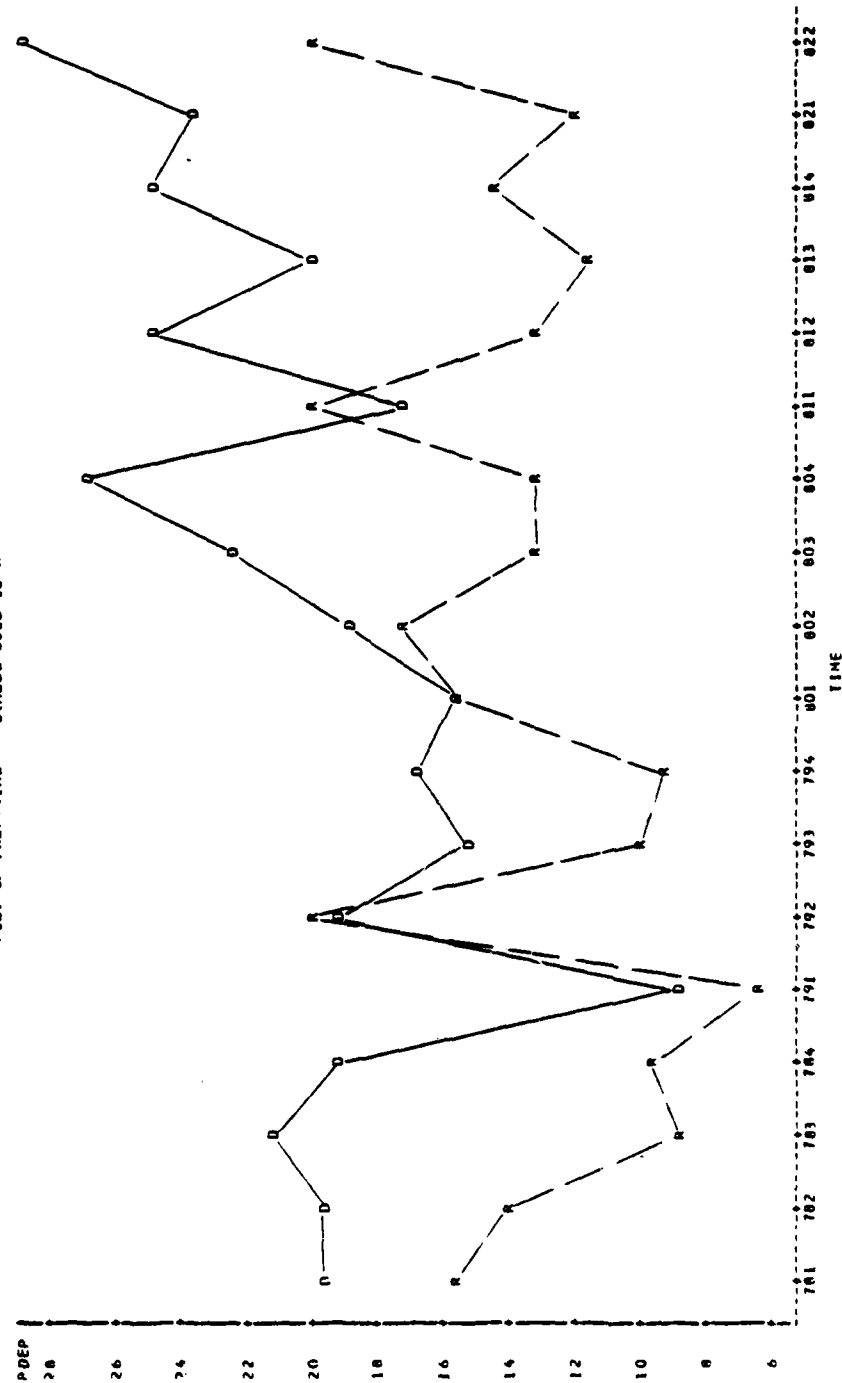


SSN 687 RICHARD RUSSELL

STATISTICAL ANALYSIS SYSTEM

UIC-52198

PLOT OF PREPTIME SYMBOL USED IS R

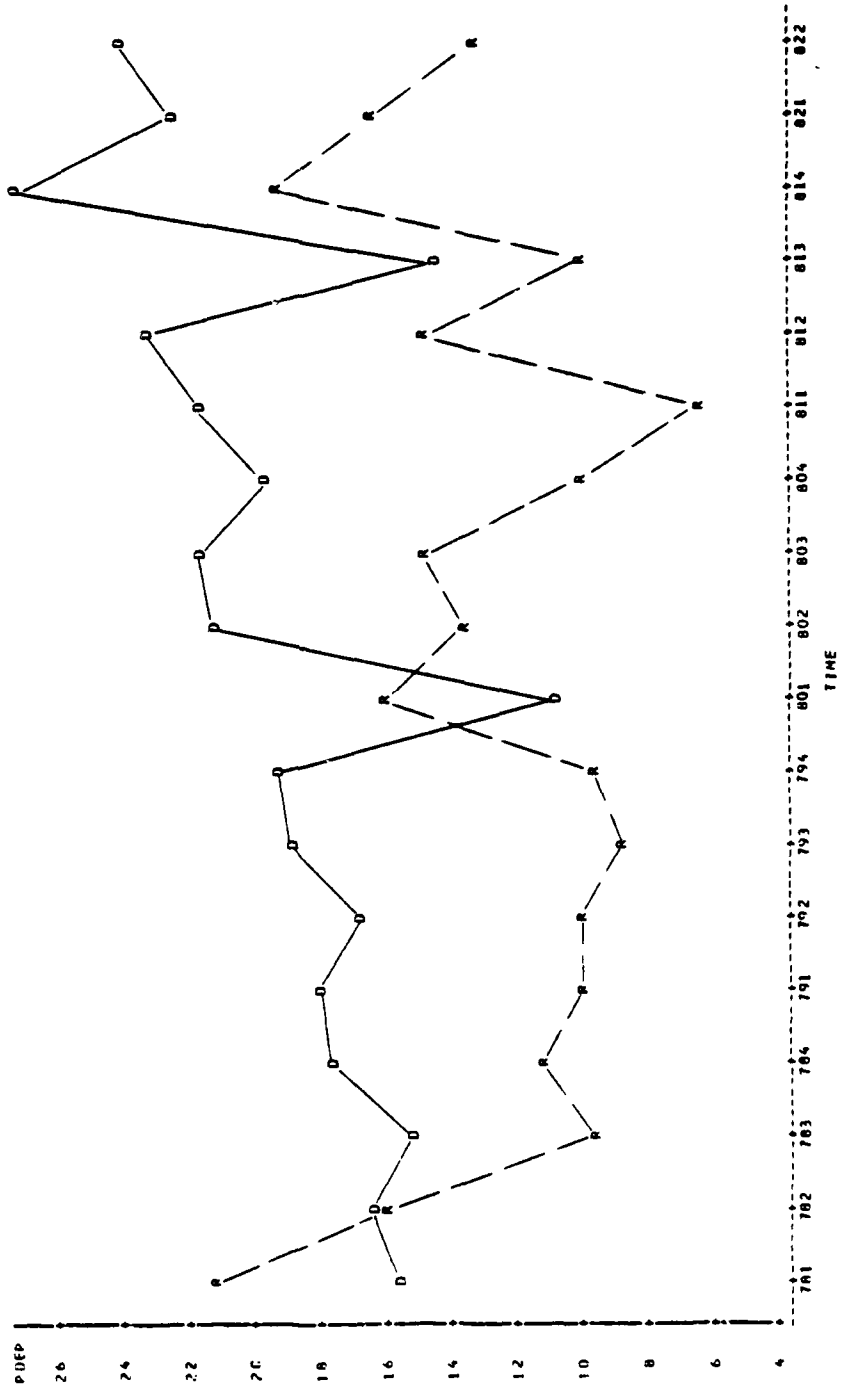


DD 938 JONAS INGRAM

STATISTICAL ANALYSIS SYSTEM

UIC-52234

PLOT OF PREP TIME SYMBOL USED IS R

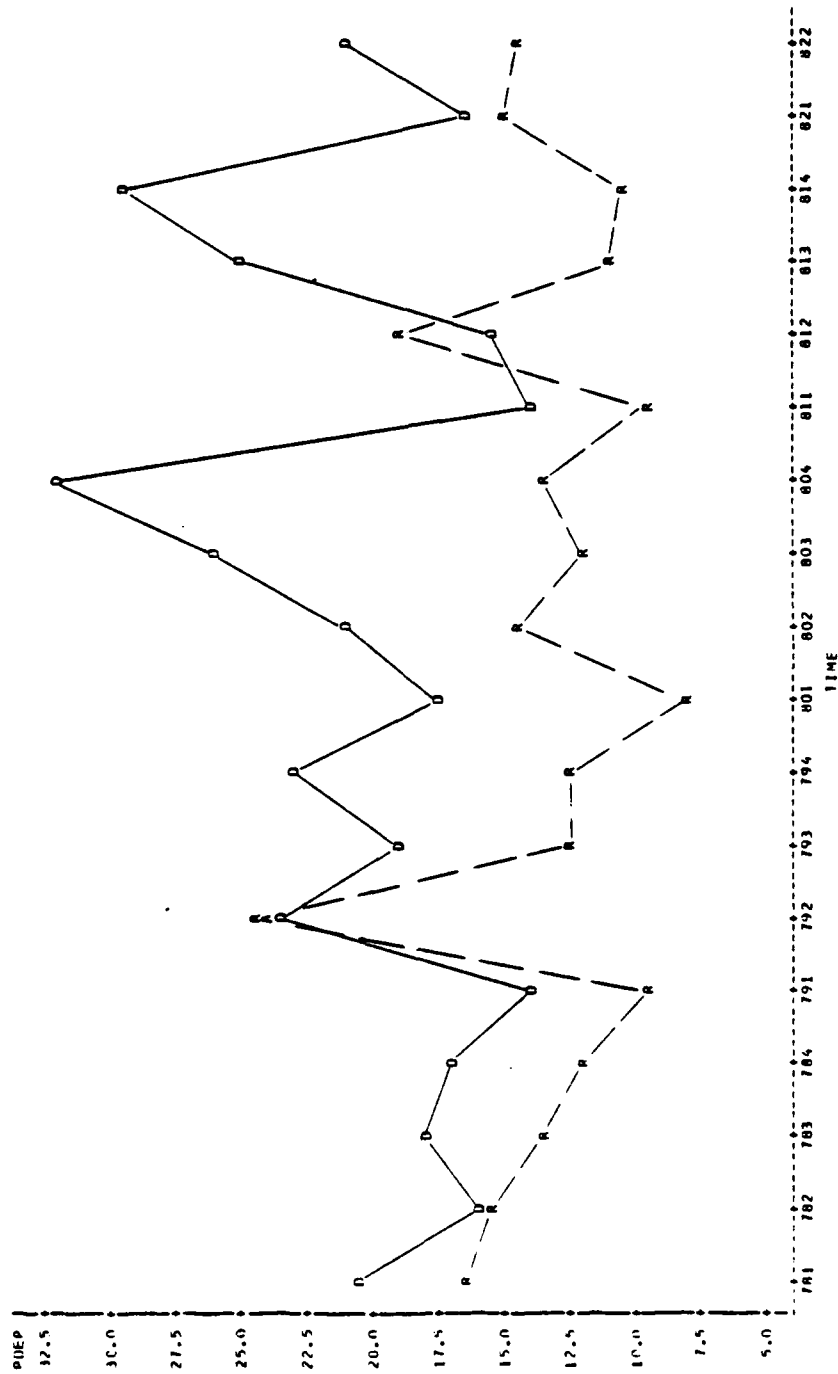


DDG 40 COONTZ

STATISTICAL ANALYSIS SYSTEM

UIC-52686

PLOT OF PREP TIME SYMBOL USED IS R

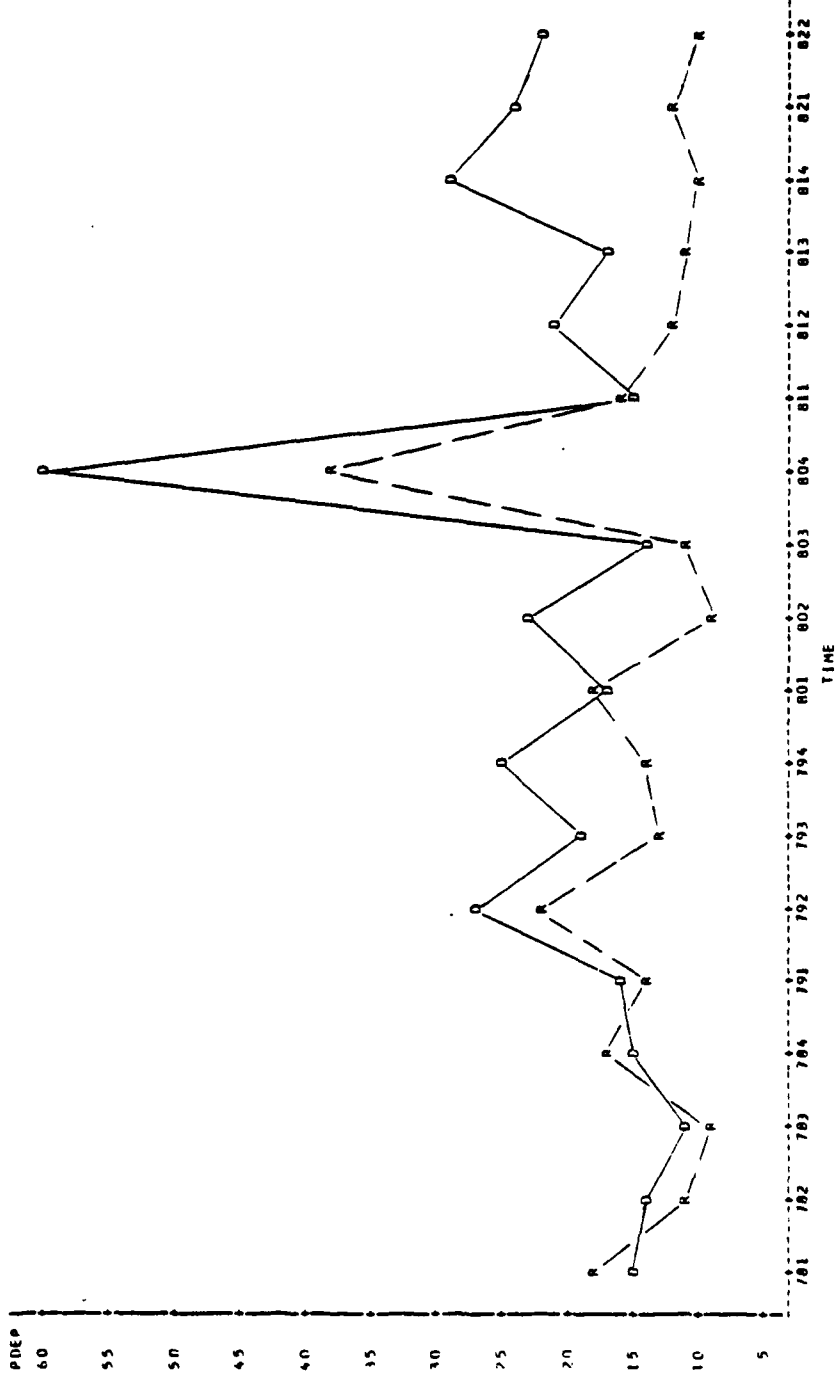


DDG 46 PREBLE

STATISTICAL ANALYSIS SYSTEM

UIC-52699

PLOT OF PREP TIME SYMBOL USED IS R



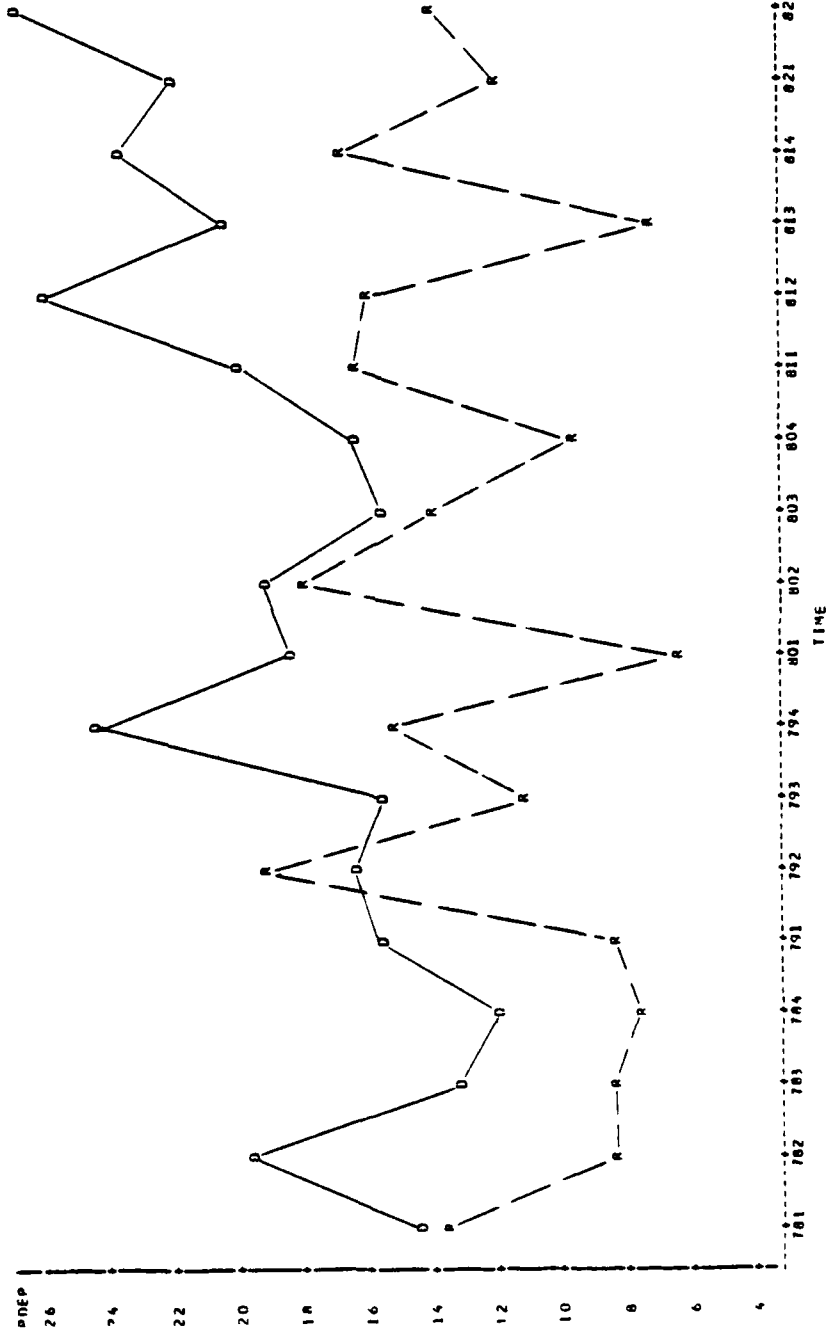
CG 24 REEVES

STATISTICAL ANALYSIS SYSTEM

UIC-52700

PLOT OF PREPOTIME SYMBOL USED IS D

PLOT OF PREPOTIME SYMBOL USED IS R

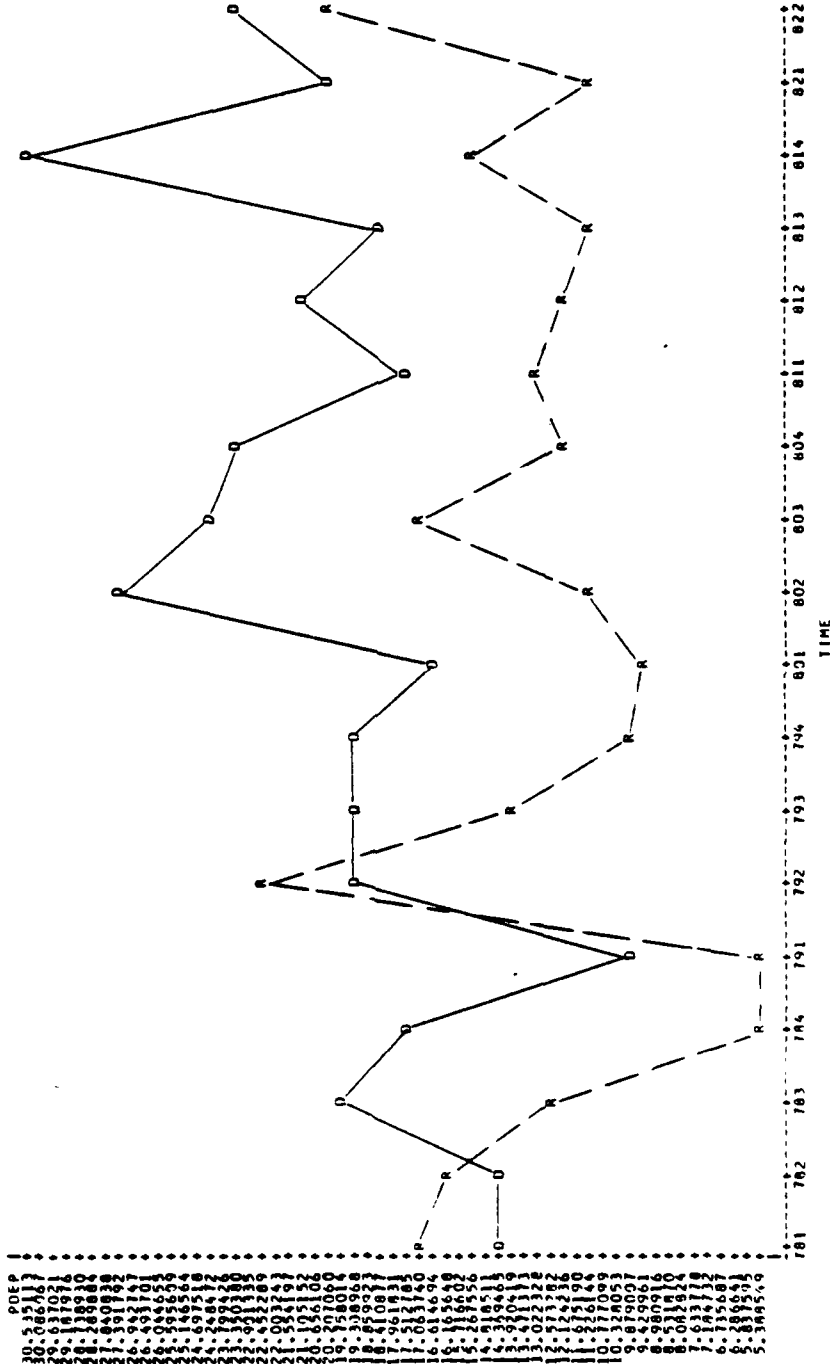


CGN 25 BAINBRIDGE

STATISTICAL ANALYSIS SYSTEM

UIC-54057

PLOT OF PREP TIME SYMBOL USED IS R

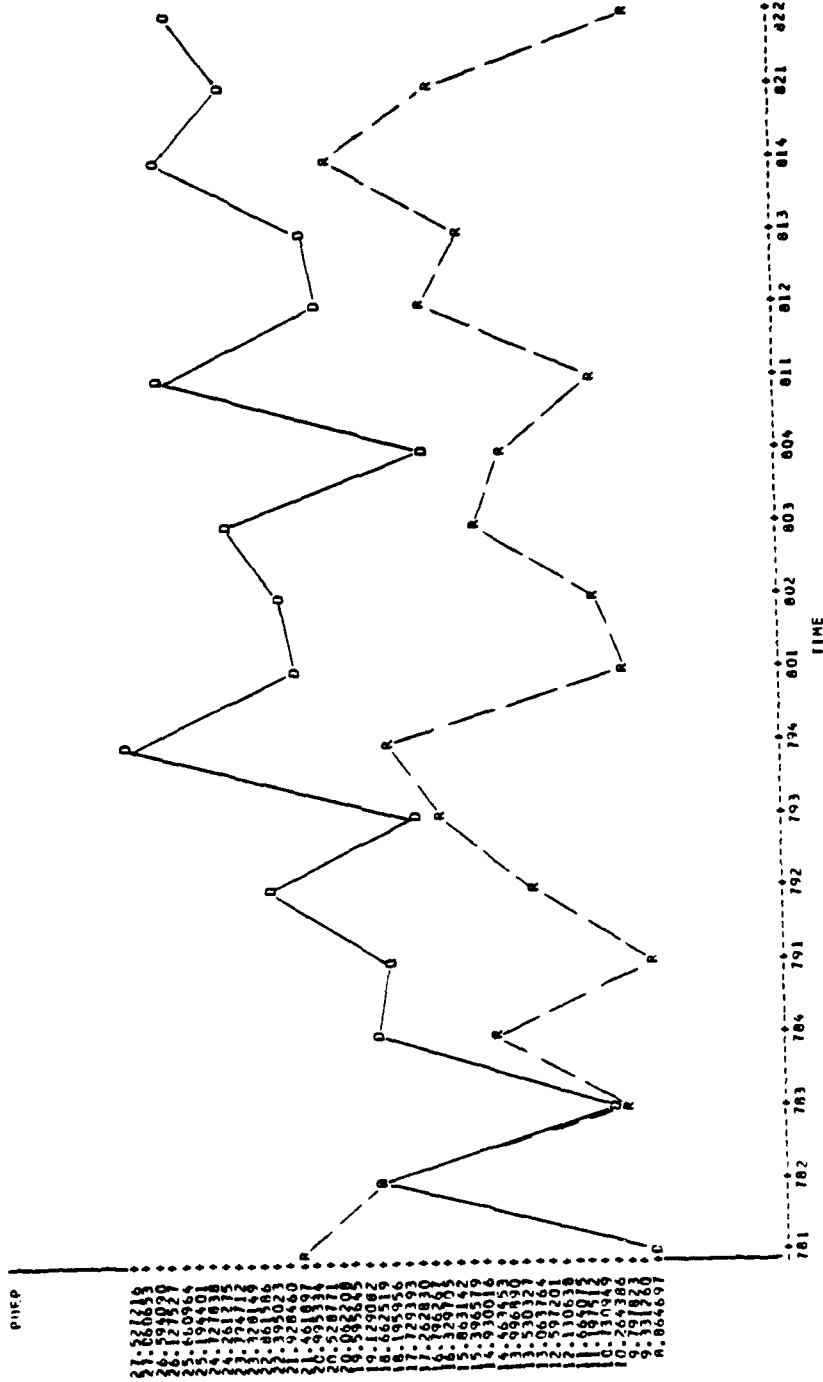


FF 1062 WHIPPLE

STATISTICAL ANALYSIS SYSTEM

UIC-54064

PLOT OF PRESTRESS SYMBOL USED IS R



FF 1069 BAGLEY

Appendix K

Comparative Characteristic Statistics of Reporters and Leavers by UIC

The data displayed below is arranged in order (rows) by time from the first quarter of FY 1978 until the second quarter of FY 1982. Statistics are provided for each ship by quarter with data for reporting and departing personnel arranged left to right respectively. The data elements are as follows:

Time: fiscal year and quarter

Median Age

Mean Age

Median Length of Service

Mean Length of Service

Median AFQT

Mean AFQT

Median Education

Mean Education

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

TIME	UIC	02534	SHIP NAME	ARS	39	CONSERVER	MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN EDUCATION
			REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801			24.67	3.00	4.79	3.00	48.50	12.00		
802			21.54	3.25	1.79	3.25	61.50	12.00		
803			19.88	2.25	0.92	2.25	62.00	12.00		
804			30.33	5.50	7.92	5.50	69.00	12.00		
811			19.42	3.25	0.67	3.25	69.00	12.00		
812			22.17	4.67	3.08	4.67	60.00	12.00		
813			22.21	4.17	2.17	4.17	56.50	12.00		
814			23.33	4.17	3.42	4.17	66.00	12.00		
821			22.50	4.83	4.13	4.83	70.00	12.00		
822			24.08	3.38	3.13	3.38	60.50	12.00		

TIME	MEAN AGE	MEAN LOS	MEAN AFQT	MEAN EDUCATION
	REPORT	DEPART	REPORT	DEPART
801	26.41	5.58	46.28	11.78
802	22.40	5.58	55.67	11.83
803	19.92	3.02	67.00	12.00
804	30.37	6.35	53.88	12.38
811	20.07	5.21	35.14	12.00
812	25.25	7.21	63.00	12.00
813	23.18	4.60	48.59	12.00
814	24.48	5.87	61.18	11.83
821	22.99	5.51	67.67	11.83
822	25.05	5.35	49.90	11.80

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	02538	SHIP NAME	ARS	43	RECOVERY	MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN EDUCATION
REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	23.29	2.64	4.46	60.00	62.00	12.00	12.00	12.00	12.00
802	25.17	1.04	3.67	54.00	65.00	12.00	12.00	12.00	12.00
803	21.75	3.25	3.92	62.00	58.00	12.00	12.00	12.00	12.00
804	22.38	3.08	3.33	62.00	64.00	12.00	12.00	12.00	12.00
811	22.25	13.46	3.75	29.00	64.00	12.50	12.00	12.00	12.00
812	26.25	10.92	6.29	62.00	65.00	12.00	12.00	12.00	12.00
813	21.46	2.08	2.29	44.00	59.00	12.00	12.00	12.00	12.00
814	21.54	4.33	4.54	61.00	64.50	12.00	12.00	12.00	12.00
821	20.25	0.67	1.17	36.00	82.50	12.00	12.00	12.00	12.00
822	19.67	0.83	4.21	84.50	58.00	12.00	12.00	12.00	12.00

UIC	02538	SHIP NAME	ARS	43	RECOVERY	MEAN AGE	MEAN LOS	MEAN AFQT	MEAN EDUCATION
REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	24.64	5.93	5.93	68.00	60.67	11.73	11.90	11.73	11.90
802	21.57	1.82	5.41	63.38	59.85	11.80	11.81	11.80	11.81
803	25.70	4.66	4.41	70.00	60.57	11.80	11.67	11.80	11.67
804	33.70	5.39	4.24	69.00	54.73	11.50	11.81	11.50	11.81
812	33.06	13.54	3.42	29.00	59.44	12.00	12.07	12.00	12.07
813	28.78	4.44	5.01	60.60	62.50	11.76	11.85	11.76	11.85
814	27.30	4.30	4.20	48.00	60.50	11.27	11.57	11.27	11.57
821	24.17	5.30	7.17	59.18	63.93	12.00	12.33	12.00	12.33
822	20.58	1.31	5.67	80.42	56.77	12.42	11.86	12.42	11.86

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	03128	SHIP NAME	ISD	28	THOMASTON	MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN REPORT	EDUCATION DEPART
TIME	801					23.04	4.25	57.00	12.00	12.00
	802					23.21	4.33	60.00	12.00	12.00
	803					22.42	3.17	58.00	12.00	12.00
	804					22.68	3.17	52.00	12.00	12.00
	811					22.96	4.00	59.00	12.00	12.00
	812					22.33	3.25	56.00	12.00	12.00
	813					22.38	3.13	65.00	12.00	12.00
	814					22.67	4.04	60.00	12.00	12.00
	821					22.17	2.79	53.00	12.00	12.00
	822					22.42	3.33	59.00	12.00	12.00

UIC	03128	SHIP NAME	ISD	28	THOMASTON	MEAN AGE	MEAN LOS	MEAN AFQT	MEAN REPORT	EDUCATION DEPART
TIME	801					23.66	4.74	55.06	11.71	11.83
	802					23.66	4.53	57.24	11.90	12.00
	803					22.98	4.73	60.07	11.50	11.85
	804					21.01	4.03	60.67	11.37	12.00
	811					22.38	4.19	52.87	11.85	12.05
	812					22.09	5.11	58.78	11.87	11.94
	813					22.97	3.48	57.65	11.44	11.79
	814					22.45	4.71	64.31	11.09	11.69
	821					22.34	3.84	59.69	12.06	11.51
	822					23.01	4.72	58.33	12.06	11.51

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

TIME	UIC	03129	SFIP NAME		LSD 29 PLYMOUTH ROCK		MEDIAN AFQT		MEDIAN LCS		MEDIAN AGE		MEDIAN EDUCATION	
			REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801			20.58	23.13	0.83	3.04	50.00	54.50	1.00	4.59	20.58	23.13	12.00	12.00
802			20.21	21.83	1.00	2.25	59.50	62.00	1.08	2.92	20.21	21.83	12.00	12.00
803			21.25	21.83	0.92	3.08	54.00	56.00	0.92	3.50	21.25	21.83	12.00	12.00
804			20.58	22.33	0.92	3.25	56.00	55.00	0.92	3.25	20.58	22.33	12.00	12.00
811			20.58	22.67	0.92	3.25	52.00	60.00	0.92	3.25	20.58	22.67	12.00	12.00
812			20.58	22.25	0.92	3.25	44.50	64.00	0.92	3.25	20.58	22.25	12.00	12.00
813			27.50	22.25	2.58	3.25	54.00	62.00	2.58	3.25	27.50	22.25	12.00	12.00
814			27.50	22.38	4.42	3.63	57.00	67.00	4.42	3.63	27.50	22.38	12.00	12.00
821			27.25	23.33	1.42	3.75	50.00	62.00	1.42	3.75	27.25	23.33	12.00	12.00
822			20.75	23.33							20.75	23.33		

TIME	MEAN AFQT		MEAN LOS		MEAN AGE		MEAN EDUCATION	
	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	49.95	56.89	2.10	4.59	24.74	24.74	11.76	11.64
803	61.09	61.41	2.89	4.07	23.99	23.99	11.59	11.71
804	53.95	58.76	2.93	3.43	22.96	22.96	11.65	11.58
811	53.06	59.02	1.85	4.49	24.91	24.91	11.61	11.69
812	55.27	56.30	1.87	4.60	24.98	24.98	12.12	12.06
813	53.13	61.06	2.23	5.13	23.63	23.63	11.57	11.73
814	44.83	58.31	7.54	4.18	23.84	23.84	12.00	11.69
814	56.33	60.19	6.27	4.27	23.24	23.24	12.00	11.86
821	50.36	62.79	7.04	5.08	24.62	24.62	11.68	11.85
822	50.85	62.46	4.49	4.66	24.85	24.85	11.85	11.77

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC

03341

SHIP NAME CV 41 MIDWAY

TIME	MEDIAN AGE REPORT	MEDIAN AGE DEPART	MEDIAN LOS REPORT	MEDIAN LOS DEPART	MEDIAN AFQT REPORT	MEDIAN AFQT DEPART	MEDIAN EDUCATION REPORT	MEDIAN EDUCATION DEPART
801	21.17	21.92	1.58	2.92	55.00	54.50	12.00	12.00
802	20.33	21.75	1.08	3.92	50.00	55.00	12.00	12.00
803	20.92	21.67	1.08	3.00	55.00	56.50	12.00	12.00
804	21.00	22.25	1.00	3.08	55.00	58.00	12.00	12.00
811	20.08	22.13	0.83	2.83	50.00	56.00	12.00	12.00
812	20.42	21.92	1.00	3.00	50.00	54.00	12.00	12.00
813	21.17	22.08	1.08	3.08	55.50	56.00	12.00	12.00
814	21.00	22.58	1.00	3.13	52.00	56.00	12.00	12.00
821	20.42	22.17	0.92	3.00	49.00	55.00	12.00	12.00

TIME	MEAN AGE REPORT	MEAN AGE DEPART	MEAN LOS REPORT	MEAN LOS DEPART	MEAN AFQT REPORT	MEAN AFQT DEPART	MEAN EDUCATION REPORT	MEAN EDUCATION DEPART
801	23.14	23.81	3.77	4.41	54.73	55.09	11.75	11.70
802	22.10	23.24	3.58	3.83	55.23	56.41	11.80	11.72
803	22.75	23.11	3.06	3.99	55.50	56.73	11.74	11.65
804	23.24	24.24	3.42	4.74	56.44	58.73	11.63	11.80
811	21.89	23.84	2.18	4.30	52.88	58.14	11.78	11.76
812	22.44	23.49	2.82	4.14	52.53	56.40	11.91	11.72
813	22.97	23.83	3.15	4.26	55.09	59.40	11.85	11.80
814	22.66	23.86	3.27	4.35	54.88	58.68	11.86	11.74
821	22.15	23.63	2.47	4.09	53.94	57.29	11.86	11.89

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	03343	SHIP NAME	CV	43	CORAL SEA
TIME					
801					
802					
803					
804					
811					
812					
813					
814					
821					
822					
		MEDIAN AGE		MEDIAN LOS	
		REPORT		REPORT	
		DEPART		DEPART	
		21.42		1.50	
		21.00		3.58	
		21.04		3.67	
		20.88		3.08	
		20.67		2.75	
		20.42		3.50	
		20.92		3.25	
		22.08		3.25	
		21.17		3.50	
		21.04		3.25	
		MEDIAN AFQT		MEDIAN EDUCATION	
		REPORT		REPORT	
		DEPART		DEPART	
		53.00		12.00	
		54.00		12.00	
		54.00		12.00	
		58.00		12.00	
		56.00		12.00	
		54.00		12.00	
		56.00		12.00	
		54.50		12.00	
		52.00		12.00	
		47.00		12.00	

TIME					
801					
802					
803					
804					
811					
812					
813					
814					
821					
822					
		MEAN AGE		MEAN LOS	
		REPORT		REPORT	
		DEPART		DEPART	
		23.02		3.47	
		22.83		3.44	
		22.91		3.44	
		23.00		3.21	
		22.73		1.23	
		22.04		2.19	
		23.10		3.23	
		24.07		4.00	
		23.40		3.30	
		23.16		3.94	
		MEAN AFQT		MEAN EDUCATION	
		REPORT		REPORT	
		DEPART		DEPART	
		54.44		11.79	
		56.12		11.70	
		54.58		11.64	
		57.78		11.82	
		57.32		12.00	
		53.64		11.87	
		54.69		11.74	
		55.69		11.77	
		53.06		11.87	
		49.98		11.87	
		MEAN AFQT		MEAN EDUCATION	
		REPORT		REPORT	
		DEPART		DEPART	
		57.52		11.91	
		57.23		11.78	
		59.53		11.92	
		60.41		11.81	
		57.63		11.94	
		59.55		11.84	
		58.06		11.76	
		58.11		11.76	

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	SHIP NAME	CV	FORRESTAL	MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN EDUCATION
REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	21.475	1.508	3.267	55.000	61.000	12.000	12.000
802	20.75	1.505	3.25	55.000	58.000	12.000	12.000
803	21.04	1.221	3.67	55.000	60.000	12.000	12.000
804	21.33	1.58	3.08	55.000	59.000	12.000	12.000
811	21.83	1.158	3.67	58.000	56.000	12.000	12.000
812	20.85	1.142	3.42	55.000	60.000	12.000	12.000
813	21.20	1.423	3.92	55.000	56.000	12.000	12.000
814	22.0	2.83	3.08	56.000	59.000	12.000	12.000
822	20.427	0.92	3.63	52.000	62.000	12.000	12.000

UIC	SHIP NAME	CV	FORRESTAL	MEAN AGE	MEAN LOS	MEAN AFQT	MEAN EDUCATION
REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	22.95	3.40	4.21	56.818	60.83	11.80	11.84
802	23.65	3.20	4.43	56.502	58.53	11.61	11.84
803	22.83	3.47	3.92	56.025	60.62	11.53	11.79
804	23.57	3.36	4.36	57.56	59.58	11.56	11.81
811	22.67	3.36	4.36	58.370	59.10	11.69	11.83
812	22.93	3.96	4.65	54.709	60.72	11.81	11.84
813	24.39	3.25	4.65	54.231	58.62	11.83	11.76
814	24.35	4.51	4.83	53.36	59.68	11.87	11.64
822	22.5	2.8	4.36	51.52	60.66	11.85	11.81

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	03368	SHIP NAME	CVN	68	NIMITZ	MEDIAN AGE	MEDIAN LUS	MEDIAN AFQT	MEDIAN EDUCATION	
TIME	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	21.00	22.75	1.50	3.42	63.00	60.00	12.00	12.00	11.81	11.86
802	21.67	22.67	2.25	3.33	58.00	63.00	12.00	12.00	11.80	11.88
804	20.17	22.50	1.08	3.56	60.00	61.50	12.00	12.00	11.54	11.80
811	21.08	22.50	1.17	3.20	56.00	62.00	12.00	12.00	11.75	11.81
813	20.75	22.58	1.10	3.17	58.00	60.00	12.00	12.00	11.81	11.79
814	20.92	22.75	1.00	3.54	58.00	61.00	12.00	12.00	11.73	11.77
821	22.00	22.83	2.25	4.08	60.00	60.00	12.00	12.00	11.84	11.76
822	21.42	22.92	1.75	3.63	58.00	60.00	12.00	12.00	11.89	11.90
	20.92	23.17	0.92	3.33	53.00	60.00	12.00	12.00	11.86	11.90

UIC	MEAN	AGE	MEAN	LUS	MEAN	AFQT	MEAN	EDUCATION
TIME	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	22.73	23.91	3.10	4.42	62.79	59.54	11.96	11.81
802	23.49	23.64	3.87	4.04	61.44	62.18	11.80	11.86
804	22.59	23.91	2.95	4.20	59.83	62.32	11.54	11.88
811	22.43	23.99	2.92	4.45	58.50	62.15	11.54	11.80
812	22.43	23.69	2.78	4.02	59.76	62.26	11.75	11.81
813	22.75	23.64	2.80	4.16	59.01	61.86	11.81	11.79
814	22.08	23.89	2.23	4.25	53.71	60.44	11.73	11.77
821	23.90	24.42	3.96	4.87	56.98	61.18	11.84	11.76
822	23.12	23.98	3.37	4.23	56.05	60.17	11.89	11.76
	22.64	24.35	2.93	4.35	53.66	60.14	11.86	11.90

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC

04621

SFIP NAME AS 12 SPERRY

TIME	MEDIAN REPORT	AGE DEPART	MEDIAN REPORT	LUS DEPART	MEDIAN REPORT	AFQT DEPART	MEDIAN REPORT	EDUCATION DEPART
801	20.42	23.58	0.75	4.25	58.00	64.00	12.00	12.00
802	20.71	21.21	0.96	1.92	48.00	56.00	12.00	12.00
803	21.25	21.50	1.17	3.50	70.00	58.00	12.00	12.00
804	23.33	22.92	1.29	3.25	56.00	61.00	12.00	12.00
812	22.33	24.50	1.92	3.92	48.00	54.00	12.00	12.00
813	22.54	23.17	1.71	3.50	55.00	65.00	12.00	12.00
814	21.92	23.17	2.92	3.33	54.00	62.00	12.00	12.00
821	21.25	22.58	0.75	3.25	52.00	56.00	12.00	12.00
822	20.50	23.88	0.75	3.92	46.00	53.00	12.00	12.00

TIME	MEAN REPORT	AGE DEPART	MEAN REPORT	LUS DEPART	MEAN REPORT	AFQT DEPART	MEAN REPORT	EDUCATION DEPART
801	22.17	25.16	2.51	5.57	59.79	60.76	12.01	11.99
802	21.80	23.50	2.14	4.25	49.96	57.76	11.81	11.99
803	23.09	23.44	3.40	3.17	65.69	58.00	11.81	12.06
804	26.92	25.47	3.10	5.68	56.86	60.09	11.47	11.97
812	23.49	24.68	3.42	4.59	47.08	53.86	11.75	11.99
813	24.19	24.50	4.34	4.47	53.89	60.18	11.93	11.88
814	23.94	24.89	4.14	4.75	53.55	61.17	11.80	11.91
821	22.75	24.89	2.40	5.03	51.26	60.83	11.57	11.88
822	22.14	25.11	1.51	5.09	49.75	55.93	11.81	11.67

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC 04028 SHIP NAME AS 18 ORION

TIME	MEDIAN AGE REPORT DEPART	MEDIAN LOS REPORT DEPART	MEDIAN AFQT REPORT DEPART	MEDIAN EDUCATION REPORT DEPART
801	21.48	2.25	54.00	12.00
802	21.88	3.17	58.00	12.00
803	21.75	3.25	58.00	12.00
804	21.42	4.00	58.00	12.00
811	21.42	4.17	60.00	12.00
812	21.50	3.67	58.00	12.00
813	21.92	3.25	58.00	12.00
814	20.96	3.33	56.00	12.00
821	20.58	3.67	55.00	12.00
822	20.50	3.50	56.00	12.00

TIME	MEAN AGE REPORT DEPART	MEAN LOS REPORT DEPART	MEAN AFQT REPORT DEPART	MEAN EDUCATION REPORT DEPART
801	23.77	4.24	55.73	11.96
802	23.89	5.12	56.42	11.72
803	23.58	3.72	58.16	11.77
804	26.45	5.55	60.34	11.89
811	22.99	5.79	56.29	11.85
812	25.78	5.87	58.45	11.92
813	25.42	5.25	56.00	11.87
814	24.65	4.20	57.05	11.85
821	24.54	5.01	60.73	11.79
822	24.59	5.30	60.69	11.87
	22.76	4.99	57.65	11.97

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	04637	SHIP NAME	AD 17	PIEDMONT
TIME		MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT
801	20.25	23.90	2.83	60.00
802	20.42	22.71	3.21	60.00
803	21.25	21.08	2.00	69.00
804	21.75	22.21	2.54	64.00
811	20.92	23.33	3.75	56.00
812	20.92	23.33	3.58	58.00
813	20.92	22.58	3.29	62.00
814	21.46	23.50	3.00	64.00
821	21.83	23.50	3.75	57.00
822	22.75	23.29	3.92	62.00
		REPORT	REPORT	REPORT
		0.75	2.83	53.00
		0.83	3.21	60.00
		1.21	2.00	67.00
		1.33	2.54	69.00
		1.17	3.75	55.00
		1.00	3.58	56.00
		1.42	3.29	60.00
		1.67	3.00	62.00
		2.13	3.75	52.00
			3.92	55.50
				EDUCATION
				DEPART
				12.00
				12.00
				12.00
				12.00
				12.00
				12.00
				12.00
				12.00

UIC	04637	SHIP NAME	AD 17	PIEDMONT
TIME		MEAN AGE	MEAN LOS	MEAN AFQT
801	21.73	24.41	4.55	59.63
802	22.17	24.39	4.97	58.09
803	23.34	22.59	3.68	57.20
804	23.96	22.19	3.34	62.84
811	22.95	25.74	5.91	56.17
812	22.97	24.68	5.00	57.17
813	23.21	24.79	5.03	62.71
814	23.87	24.46	4.43	63.60
821	24.17	25.27	5.44	65.29
822	24.39	24.82	5.06	61.28
		REPORT	REPORT	REPORT
		21.73	2.34	54.67
		22.17	2.71	65.60
		23.34	3.78	59.80
		23.96	4.23	55.48
		22.95	3.51	58.21
		22.97	3.39	63.26
		23.21	3.50	60.26
		23.87	3.83	50.48
		24.17	4.50	51.20
		24.39	4.50	56.16
				EDUCATION
				DEPART
				11.72
				11.91
				11.73
				11.55
				11.86
				11.90
				11.74
				11.81
				11.90
				11.72

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	UIC	04665	SHIP NAME	DDG	33	PARSONS	MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN EDUCATION
TIME	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	21.67	22.83	1.37	2.92	51.50	60.00	12.00	12.00	12.00	12.00
802	21.33	22.50	1.58	3.00	56.50	58.00	12.00	12.00	12.00	12.00
803	19.83	22.71	1.58	3.33	62.00	68.00	12.00	12.00	12.00	12.00
804	20.33	22.58	1.25	3.42	55.00	58.00	12.00	12.00	12.00	12.00
811	22.58	22.75	3.63	3.08	60.00	58.00	12.00	12.00	12.00	12.00
812	22.50	23.75	2.29	4.25	59.50	60.00	12.00	12.00	12.00	12.00
813	21.67	23.17	2.50	3.33	65.00	65.00	12.00	12.00	12.00	12.00
814	21.21	24.25	2.21	4.25	55.50	61.50	12.00	12.00	12.00	12.00
821	24.33	23.46	3.71	4.25	52.50	63.50	12.00	12.00	12.00	12.00
822	23.25	23.13	2.75	3.79	59.00	60.00	12.00	12.00	12.00	12.00

UIC	UIC	04665	SHIP NAME	DDG	33	PARSONS	MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN EDUCATION
TIME	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	23.24	24.62	3.35	4.48	55.50	59.83	12.00	12.00	12.00	12.00
802	23.62	24.59	4.13	4.74	58.35	58.08	11.90	11.75	11.74	11.75
803	23.03	25.23	3.71	4.79	64.35	65.08	11.45	11.74	11.90	11.90
804	25.22	25.25	5.63	5.72	56.03	58.46	11.73	11.80	11.94	11.94
811	25.31	25.65	5.03	5.89	58.60	59.72	11.03	11.98	11.98	11.98
812	22.80	25.08	3.24	5.13	60.65	63.87	11.80	11.71	11.71	11.71
813	23.64	26.45	4.05	6.52	57.18	61.73	11.93	11.93	11.93	11.93
814	23.24	24.46	5.35	4.86	54.93	63.96	11.79	11.79	11.79	11.79
821	24.24	23.96	4.58	4.67	58.51	58.96	11.79	11.79	11.79	11.79

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER
 DD 950 RICHARD EDWARDS

UIC	SHIP NAME	MEDIAN AGE REPORT	MEDIAN LUS DEPART	MEDIAN AFQT DEPART	MEDIAN EDUCATION DEPART
04666					
TIME					
801		21.42	2.83	58.00	12.00
802		21.83	2.92	61.00	12.00
803		22.42	3.08	60.00	12.00
804		22.67	3.58	58.00	12.00
811		22.33	3.00	64.00	12.00
812		22.25	3.83	60.00	12.00
813		23.35	3.25	58.00	12.00
814		22.92	4.17	62.00	12.00
821		23.04	3.38	67.00	12.00
822		23.50	3.75	62.00	12.00

UIC	SHIP NAME	MEAN AGE REPORT	MEAN LUS DEPART	MEAN AFQT DEPART	MEAN EDUCATION DEPART
04666					
TIME					
801		23.82	3.71	56.80	11.90
802		21.86	3.65	60.03	11.78
803		21.82	3.94	61.14	11.80
804		21.84	4.88	60.16	11.92
811		22.99	4.57	60.24	11.76
812		22.45	5.59	62.57	11.83
813		24.71	4.68	62.55	12.06
814		24.69	5.27	62.66	11.11
821		21.74	4.45	62.18	12.00
822		22.77	4.65	66.91	11.88

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER
 UIC 04074 S-IP NAME DDG 8 LYNDE MCCORMICK

TIME	MEDIAN AGE REPORT	MEDIAN LOS REPORT	MEDIAN AFQT REPORT	MEDIAN EDUCATION DEPART
801	21.50	2.83	56.00	12.00
802	21.88	4.04	65.00	12.00
803	24.25	3.92	60.00	12.00
804	21.25	3.08	62.00	12.00
811	22.08	3.00	64.50	12.00
812	22.33	4.75	62.00	12.00
813	20.92	3.25	65.00	12.00
814	23.17	4.25	66.50	12.00
821	22.50	4.83	67.00	12.00
822	21.96	3.53	62.00	12.00
		2.17	62.50	12.00

TIME	MEAN AGE REPORT	MEAN LOS REPORT	MEAN AFQT REPORT	MEAN EDUCATION DEPART
801	23.45	4.29	54.84	11.71
802	24.55	5.04	60.73	11.94
803	24.74	5.56	61.04	11.83
804	22.99	4.25	63.67	11.64
811	23.21	5.46	65.22	11.85
812	23.97	5.31	60.94	11.95
813	22.70	6.18	61.77	12.08
814	23.69	5.12	61.51	11.89
821	24.95	5.64	58.93	11.75
822	23.68	4.77	61.63	12.04

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC 0 4609

SHIP NAME AS 31 HUNLEY

TIME	MEDIAN AGE REPORT	MEDIAN AGE DEPART	MEDIAN LOS REPORT	MEDIAN LOS DEPART	MEDIAN AFQT REPORT	MEDIAN AFQT DEPART	MEDIAN EDUCATION REPORT	MEDIAN EDUCATION DEPART
801	20.38	22.67	1.04	3.42	54.00	60.00	12.00	12.00
802	20.67	22.75	1.00	3.17	52.00	58.00	12.00	12.00
803	21.58	25.50	3.08	4.67	56.00	60.00	12.00	12.00
811	20.83	24.33	1.58	4.42	60.00	61.00	12.00	12.00
812	21.92	23.00	2.00	3.46	64.00	62.00	12.00	12.00
813	22.92	23.21	2.33	3.04	75.00	58.00	12.00	12.00
814	22.67	22.96	0.25	4.13	62.00	65.00	12.00	12.00
821	20.75	23.75	0.83	4.33	47.00	62.00	12.00	12.00
822	24.33	22.83	4.92	3.75	63.00	56.00	12.00	12.00

TIME	MEAN AGE REPORT	MEAN AGE DEPART	MEAN LOS REPORT	MEAN LOS DEPART	MEAN AFQT REPORT	MEAN AFQT DEPART	MEAN EDUCATION REPORT	MEAN EDUCATION DEPART
801	21.93	24.43	2.42	4.97	56.85	61.34	11.79	11.89
802	23.23	24.23	3.61	4.55	51.40	58.53	11.76	11.89
803	23.88	26.43	4.29	6.32	55.75	57.72	11.78	12.06
804	23.57	26.10	3.72	6.36	57.81	58.80	11.57	12.00
811	23.30	24.54	3.89	4.95	56.03	66.61	11.88	11.95
812	24.80	24.58	5.06	4.72	60.72	61.81	11.88	11.89
813	24.72	25.15	4.68	5.30	69.07	59.90	11.88	11.91
814	24.60	25.33	4.28	5.77	59.98	62.93	11.84	12.00
821	25.71	25.50	3.90	5.64	50.68	60.91	12.02	11.84
822	26.29	25.60	6.54	5.31	61.33	57.43	11.96	11.84

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC 04698

SHIP NAME FFG 5 RICHARD L PAGE

TIME	MEDIAN AGE REPORT	MEDIAN LCS REPORT	MEDIAN AFQT REPORT	MEDIAN EDUCATION DEPART
801	22.63	3.21	57.00	12.00
802	21.50	2.67	61.00	12.00
803	22.63	3.33	53.50	12.00
804	22.58	3.67	54.50	12.00
811	20.00	3.00	65.00	12.00
812	22.33	3.25	64.00	12.00
813	21.58	3.08	58.00	12.00
814	22.63	2.67	67.00	12.00
821	21.92	2.54	64.50	12.00
822	20.67	3.96	74.00	12.00
	22.33	4.08	52.00	12.00

TIME	MEAN AGE REPORT	MEAN LOS REPORT	MEAN AFQT REPORT	MEAN EDUCATION DEPART
801	22.85	3.70	59.59	12.04
802	23.26	4.32	55.00	11.67
803	22.89	5.11	55.28	11.63
804	25.91	4.76	60.35	11.65
811	20.37	4.94	61.14	11.85
812	22.39	4.57	64.90	11.94
813	24.17	4.16	58.81	11.88
814	24.51	4.08	60.56	11.80
821	22.44	6.56	54.27	11.80
822	23.91	5.35	70.68	12.02
			53.14	

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

TIME	UIC	04951	SHIP NAME	AO	51	ASHTABULA	MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN EDUCATION
							REPORT	DEPART	REPORT	DEPART
801							22.17	2.54	51.00	12.00
802							21.17	1.67	55.00	12.00
803							21.67	2.83	58.00	12.00
804							20.67	2.83	52.00	12.00
811							21.50	1.42	61.00	12.00
812							21.25	2.75	56.00	12.00
813							21.33	3.33	60.00	12.00
814							22.58	3.50	50.00	12.00
821							19.96	1.25	49.00	12.00
822							21.67	0.67	43.50	12.00
								55.00	53.00	

TIME	MEAN	AGE	LOS	AFQT	EDUCATION
	REPORT	DEPART	REPORT	DEPART	DEPART
801	23.79	22.70	3.08	56.65	11.73
802	23.26	23.05	3.70	59.89	11.80
803	25.09	23.40	4.21	53.36	11.65
804	21.55	24.72	4.82	57.84	11.75
811	23.18	23.51	4.06	55.31	11.69
812	22.51	24.20	4.53	59.63	12.11
813	22.51	24.57	4.54	53.98	11.89
814	24.77	24.23	4.38	59.05	11.90
821	22.24	26.66	6.29	53.57	11.95
822	22.63	25.74	5.72	54.68	

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

TIME	UIC	05604	SHIP NAME	SS	581	BLUEBACK	MEDIAN AGE		MEDIAN LOS		MEDIAN AFQT		MEDIAN EDUCATION	
							REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801							21.96	22.08	1.71	2.79	67.50	72.00	12.00	12.00
802							22.29	24.60	3.17	3.67	69.00	62.00	12.00	12.00
803							21.58	22.00	3.25	4.17	64.00	75.00	12.00	12.00
804							22.08	22.17	2.67	3.33	55.00	73.00	12.00	12.00
811							20.17	23.17	1.25	4.42	59.50	64.00	12.00	12.00
812							20.67	25.25	1.75	5.08	73.00	53.50	12.00	12.00
813							23.67	23.42	3.29	3.92	71.00	69.00	12.00	12.00
814							24.00	22.21	2.50	3.88	62.00	67.00	12.00	12.00
821							21.00	22.75	1.50	4.33	58.00	67.00	12.00	12.00
822							23.71	23.58	5.71	4.83	63.50	65.00	12.00	12.00

TIME	UIC	05604	SHIP NAME	SS	581	BLUEBACK	MEAN AGE		MEAN LOS		MEAN AFQT		MEAN EDUCATION	
							REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801							23.77	23.05	3.68	4.09	65.30	68.33	12.00	11.67
802							24.84	26.56	4.64	6.78	60.55	57.43	11.95	12.14
803							21.83	24.11	3.63	5.03	62.40	69.92	12.20	11.77
804							22.08	25.77	2.67	4.96	55.00	70.89	11.58	11.56
812							21.16	26.27	3.48	6.46	59.67	60.80	11.73	11.67
813							21.96	27.76	2.20	7.18	71.33	54.42	11.08	12.08
814							25.88	24.91	6.06	5.51	63.42	65.22	12.17	11.61
821							23.88	24.87	6.46	6.07	59.31	67.30	12.06	11.94
822							23.03	25.64	7.46	8.67	59.33	62.95	11.44	11.74

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

TIME	UIC	05833	SHIP NAME AOE 2 CAMDEN			MEDIAN LOS			MEDIAN AFQT			MEDIAN EDUCATION		
			REPORT	DEPART	EDUCATION	REPORT	DEPART	EDUCATION	REPORT	DEPART	EDUCATION	REPORT	DEPART	EDUCATION
801			21.42	22.42	2.75	55.00	58.00	12.00	12.00	12.00	11.49	59.82	11.84	
802			21.00	22.42	3.00	55.00	60.00	12.00	12.00	12.00	11.38	58.82	11.67	
803			20.92	22.92	3.17	56.00	60.00	12.00	12.00	12.00	11.74	60.60	11.57	
804			20.96	22.58	3.17	55.00	60.00	12.00	12.00	12.00	11.74	61.00	11.81	
811			21.54	22.54	3.42	54.50	55.00	12.00	12.00	12.00	11.67	58.29	11.59	
812			21.50	22.50	3.25	54.00	60.00	12.00	12.00	12.00	11.90	60.47	11.87	
813			21.00	22.00	2.52	50.00	62.00	12.00	12.00	12.00	11.65	61.76	11.85	
814			21.58	22.67	2.79	54.00	65.00	12.00	12.00	12.00	11.74	60.37	11.71	
821			20.88	22.75	3.67	47.50	64.00	12.00	12.00	12.00	11.78	60.71	11.90	
822			21.42	22.58	3.42	50.00	66.50	12.00	12.00	12.00	11.66	64.02	11.90	

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

TIME	UIC	05836	ST-IP NAME			AFS 5 CONCORD			MEDIAN			EDUCATION		
			REPORT	DEPART	LOS	REPORT	DEPART	AFQT	REPORT	DEPART	REPORT	DEPART		
801			21.50	25.33	0.92	3.50	57.00	56.00	12.00	12.00	12.00	12.00	12.00	
802			20.88	21.58	0.79	2.83	54.00	62.00	12.00	12.00	12.00	12.00	12.00	
803			22.00	22.58	1.25	3.00	52.00	56.00	12.00	12.00	12.00	12.00	12.00	
804			20.75	22.83	1.08	3.38	51.00	54.50	12.00	12.00	12.00	12.00	12.00	
811			20.88	22.67	1.13	3.38	49.00	60.00	12.00	12.00	12.00	12.00	12.00	
812			20.00	23.38	0.75	3.67	50.00	64.00	12.00	12.00	12.00	12.00	12.00	
813			24.33	22.17	5.25	3.82	62.00	66.00	12.00	12.00	12.00	12.00	12.00	
814			21.08	23.42	1.25	4.17	51.00	64.00	12.00	12.00	12.00	12.00	12.00	
821			21.21	22.25	1.00	4.25	51.00	56.00	12.00	12.00	12.00	12.00	12.00	
822			22.71	22.42	1.29	3.25	54.00	56.00	12.00	12.00	12.00	12.00	12.00	

TIME	UIC	05836	ST-IP NAME			AFS 5 CONCORD			MEDIAN			EDUCATION		
			REPORT	DEPART	LOS	REPORT	DEPART	AFQT	REPORT	DEPART	REPORT	DEPART		
801			23.30	24.37	2.90	4.74	56.58	57.42	11.75	11.83	11.83	11.83	11.83	
802			22.84	23.87	3.17	5.00	53.75	59.27	11.93	11.96	11.96	11.96	11.96	
803			22.84	23.65	3.06	3.81	55.64	58.16	11.68	11.70	11.70	11.70	11.70	
804			22.90	24.46	3.55	3.77	53.00	65.26	11.73	11.85	11.85	11.85	11.85	
811			22.69	24.24	3.86	4.60	51.58	56.94	11.70	11.82	11.82	11.82	11.82	
812			21.41	24.41	1.86	4.39	49.16	59.98	11.87	11.97	11.97	11.97	11.97	
813			26.67	23.57	6.45	3.73	48.39	62.49	11.66	11.86	11.86	11.86	11.86	
814			22.16	25.54	2.47	4.34	53.03	59.48	11.78	11.91	11.91	11.91	11.91	
821			22.18	24.79	2.47	4.66	53.97	56.48	12.14	12.14	12.14	12.14	12.14	
822			24.01	24.79	3.83	4.66	54.07	56.48	12.14	12.14	12.14	12.14	12.14	

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC 05847

SHIP NAME IKA 116 ST LOUIS

TIME	MEDIAN AGE REPORT	MEDIAN LOS REPORT	MEDIAN AFQT REPORT	MEDIAN EDUCATION REPORT
801	22.92	1.25	47.00	12.00
802	20.92	3.58	49.00	12.00
803	21.17	3.33	58.00	12.00
804	22.38	3.58	57.00	12.00
811	20.25	2.83	58.00	12.00
812	22.46	3.33	60.00	12.00
813	22.42	3.42	55.00	12.00
814	22.38	2.33	65.00	12.00
821	20.13	4.58	52.50	12.00
822	21.92	3.83	57.00	12.00

TIME	MEAN AGE REPORT	MEAN LOS REPORT	MEAN AFQT REPORT	MEAN EDUCATION REPORT
801	24.23	3.88	48.88	11.98
802	21.69	5.09	59.78	11.76
803	22.53	5.09	58.65	11.57
804	22.08	3.88	59.91	11.53
811	22.42	4.68	49.91	12.94
812	24.77	5.07	53.47	11.94
813	23.77	4.02	62.17	11.86
814	24.09	6.43	59.94	11.58
821	22.09	4.58	54.72	11.50
822	23.27	5.34	51.42	11.81

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

TIME	UIC	SHIP NAME	LPD	REPORT	MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN EDUCATION
801	07183	DENVER	9	21.43	1.50	2.46	55.50	12.00
802				21.33	1.17	3.33	50.00	12.00
803				22.08	1.83	3.08	55.00	12.00
804				22.79	0.83	3.50	58.00	12.00
811				22.92	0.92	3.83	55.00	12.00
812				22.92	1.04	3.75	62.00	12.00
813				23.25	1.00	3.17	56.00	12.00
814				23.92	2.67	4.25	55.00	12.00
821				23.33	1.75	4.25	59.00	12.00
822				23.17	1.00	3.75	49.00	12.00
801				22.91	2.99	3.81	59.00	11.93
802				23.44	3.17	4.51	56.52	11.90
803				21.87	3.38	3.70	59.93	12.00
804				22.12	2.41	4.54	59.58	11.66
811				22.04	2.13	5.24	59.73	11.70
812				24.46	2.56	6.04	58.30	11.96
813				23.56	3.78	5.27	56.77	12.04
814				23.56	3.94	5.08	55.33	11.77
822				23.70	3.26	4.43	57.49	11.85

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	07351	SHIP NAME	LPH 3 OKINAWA	MEDIAN AGE		MEDIAN LOS		MEDIAN AFQT		MEDIAN EDUCATION		
TIME	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	21.25	22.83	1.67	3.50	49.00	60.00	12.00	12.00	11.91	11.87	12.00	12.00
802	20.71	23.58	1.00	3.33	53.00	60.00	12.00	12.00	11.82	11.78	12.00	12.00
803	21.42	22.42	1.92	3.25	55.00	55.00	12.00	12.00	11.91	11.88	12.00	12.00
804	21.04	23.13	1.58	3.00	54.50	62.00	12.00	12.00	11.51	12.03	12.00	12.00
811	21.17	22.46	1.58	3.71	52.00	62.00	12.00	12.00	11.04	11.72	12.00	12.00
812	20.50	22.83	1.00	3.54	55.00	55.00	12.00	12.00	11.68	11.85	12.00	12.00
813	21.08	24.88	1.67	4.00	52.00	58.00	12.00	12.00	11.94	11.76	12.00	12.00
814	23.08	23.08	3.00	4.25	50.00	58.00	12.00	12.00	11.94	11.76	12.00	12.00
821	21.92	23.50	1.67	3.75	46.00	64.00	12.00	12.00	11.84	11.72	12.00	12.00
822	22.00	23.17	1.08	4.04	56.00	63.00	12.00	12.00	11.84	11.72	12.00	12.00

UIC	07351	SHIP NAME	LPH 3 OKINAWA	MEAN AGE		MEAN LOS		MEAN AFQT		MEAN EDUCATION		
TIME	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	23.21	24.59	3.43	4.98	50.98	58.20	11.91	11.87	11.91	11.87	12.00	12.00
802	22.84	25.47	3.59	5.48	53.59	60.74	11.82	11.78	11.82	11.78	12.00	12.00
803	23.03	23.89	3.04	4.40	58.17	53.02	11.91	11.88	11.51	11.88	12.00	12.00
804	23.29	24.47	3.68	4.39	56.05	61.36	11.04	12.03	11.04	12.03	12.00	12.00
811	23.21	24.37	3.40	4.64	55.91	55.20	11.68	11.72	11.68	11.85	12.00	12.00
812	21.98	24.42	2.40	4.64	55.91	55.20	11.68	11.72	11.68	11.85	12.00	12.00
813	22.37	25.55	3.12	5.31	52.37	57.69	11.94	11.76	11.94	11.76	12.00	12.00
814	26.43	24.81	6.18	5.27	48.20	58.70	11.94	11.76	11.94	11.76	12.00	12.00
821	24.66	25.41	4.85	5.40	48.57	61.13	11.84	11.72	11.84	11.72	12.00	12.00
822	24.67	24.93	4.64	5.21	55.65	61.49	11.84	11.72	11.84	11.72	12.00	12.00

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	SHIP NAME	AR	5	VULCAN	MEDIAN AGE REPORT	MEDIAN AGE DEPART	MEDIAN LOS REPORT	MEDIAN LOS DEPART	MEDIAN AFQT REPORT	MEDIAN AFQT DEPART	MEDIAN EDUCATION REPORT	MEDIAN EDUCATION DEPART
08808					20.00	23.17	0.83	3.17	52.00	59.00	12.00	12.00
801					21.42	22.42	1.21	3.75	55.00	59.00	12.00	12.00
802					21.92	22.33	1.20	3.25	54.00	60.00	12.00	12.00
803					22.33	22.46	1.92	2.96	56.00	60.50	12.00	12.00
804					21.71	23.75	1.33	3.00	62.00	61.00	12.00	12.00
811					21.83	23.29	1.00	4.04	64.00	57.00	12.00	12.00
812					21.75	22.33	1.21	2.63	56.00	62.50	12.00	12.00
813					21.92	22.29	1.25	4.25	59.00	64.00	12.00	12.00
814					22.08	22.67	1.08	2.50	59.00	62.00	12.00	12.00
821					21.21	23.17	1.54	3.83	59.00	58.00	12.00	12.00
822												
					20.69	24.71	1.24	4.72	53.86	60.04	11.79	11.84
801					22.91	24.80	3.24	5.25	54.23	60.70	11.87	11.75
802					23.86	24.38	4.01	4.85	55.85	62.83	11.72	11.76
803					24.04	23.75	3.85	3.85	57.57	62.63	11.89	11.94
804					23.25	25.49	3.54	5.21	60.68	60.28	11.77	11.88
811					23.66	24.82	3.34	5.12	61.12	58.23	11.94	11.88
812					23.42	24.12	3.56	4.96	62.08	62.25	11.88	11.78
813					23.88	26.36	3.83	5.41	56.73	61.06	12.12	12.01
814					23.87	24.51	3.56	4.96	56.84	59.70	11.84	11.87
821					23.05	25.17	3.51	5.13	60.32	59.70	11.84	11.80

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC

08809

SHIP NAME ' AR 7 HECTOR

TIME	MEDIAN AGE	MEDIAN LCS	MEDIAN AFQT	MEDIAN EDUCATION
801	20.79	2.75	55.00	12.00
802	21.58	2.83	52.00	12.00
803	22.33	3.17	55.00	12.00
804	21.67	3.38	54.50	12.00
811	21.58	3.83	58.00	12.00
812	21.92	4.00	54.00	12.00
813	22.56	3.79	55.00	12.00
814	21.64	3.54	57.50	12.00
821	21.50	4.33	46.00	12.00
822	23.42	4.33	50.00	12.00

TIME	MEAN AGE	MEAN LUS	MEAN AFQT	MEAN EDUCATION
801	21.91	2.80	56.13	11.71
802	22.63	3.42	54.59	11.52
803	23.72	3.67	56.03	11.81
804	23.82	4.43	54.73	11.56
811	23.19	3.53	60.80	11.64
812	23.15	4.25	55.60	11.79
813	23.54	4.85	51.58	11.87
814	23.28	4.30	57.05	11.82
821	25.38	5.59	45.78	12.23
822	24.94	5.59	49.52	12.16

CUMPARATIVE STATISTICS CF PERSONNEL INVOLVED IN TURNOVER

UIC	20012	SHIP NAME	LSL	37	PORTLAND
		MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN EDUCATION
TIME	REPORT	DEPART	REPORT	DEPART	REPORT
801	22.475	22.08	1.13	58.00	12.00
802	20.58	21.46	1.50	49.00	12.00
803	21.29	22.58	0.92	64.00	12.00
804	21.08	21.42	1.21	60.00	12.00
811	21.58	23.33	1.17	56.00	12.00
812	21.13	22.63	1.10	54.00	12.00
813	21.13	22.83	1.25	60.00	12.00
814	21.67	23.00	1.63	53.50	12.00
821	21.67	23.08	0.92	56.00	12.00
822	20.75	22.92	1.00	56.00	12.00
		MEAN AGE	MEAN LOS	MEAN AFQT	MEAN EDUCATION
TIME	REPORT	DEPART	REPORT	DEPART	REPORT
801	24.04	23.37	4.08	54.60	11.37
802	21.96	23.43	2.56	50.46	11.90
803	22.59	23.20	2.68	63.31	12.02
804	22.30	22.30	2.89	55.89	11.42
811	23.01	24.99	2.84	55.44	11.81
812	23.16	24.44	3.48	57.85	12.10
813	22.61	24.55	4.07	58.81	11.90
814	25.16	24.86	3.38	55.59	11.83
821	23.78	24.39	5.22	50.94	11.75
822	23.16	24.59	3.77	54.06	11.66
		MEAN LOS	MEAN AFQT	MEAN EDUCATION	MEAN EDUCATION
TIME	REPORT	DEPART	REPORT	DEPART	REPORT
801	3.48	3.48	54.60	54.85	11.81
802	4.14	4.14	50.46	60.75	11.82
803	3.00	3.00	63.31	59.82	11.92
804	3.13	3.13	55.89	61.97	11.72
811	5.48	5.48	55.44	57.85	11.90
812	4.47	4.47	58.81	61.43	11.90
813	5.07	5.07	55.59	61.38	11.83
814	5.33	5.33	50.94	59.31	11.69
821	4.71	4.71	54.06	59.25	11.91
822	5.28	5.28	55.12	58.38	11.89

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

TIME	UIC	20050	SHIP NAME			FT 1079 BOWEN			MEDIAN			EDUCATION		
			REPORT	DEPART	LCS	REPORT	DEPART	AFQT	REPORT	DEPART	REPORT	DEPART		
801			21.71	23.33	3.83	53.00	61.00	12.00	12.00	12.00	12.00	12.00	12.00	
802			20.92	22.88	3.04	56.00	55.50	12.00	12.00	12.00	12.00	12.00	12.00	
803			23.04	23.17	3.08	62.00	67.00	12.00	12.00	12.00	12.00	12.00	12.00	
804			21.21	23.42	2.75	64.50	58.00	12.00	12.00	12.00	12.00	12.00	12.00	
811			21.00	22.33	2.79	60.00	69.00	12.00	12.00	12.00	12.00	12.00	12.00	
812			23.71	24.25	5.25	60.50	64.00	12.00	12.00	12.00	12.00	12.00	12.00	
813			20.63	22.42	2.75	65.50	69.00	12.00	12.00	12.00	12.00	12.00	12.00	
814			21.17	22.08	2.79	55.50	69.00	12.00	12.00	12.00	12.00	12.00	12.00	
821			21.17	23.83	2.42	55.50	69.00	12.00	12.00	12.00	12.00	12.00	12.00	
822			21.96	23.83	4.17	58.00	62.00	12.00	12.00	12.00	12.00	12.00	12.00	

TIME	UIC	20050	SHIP NAME			FT 1079 BOWEN			MEAN			EDUCATION		
			REPORT	DEPART	LOS	REPORT	DEPART	AFQT	REPORT	DEPART	REPORT	DEPART		
801			21.37	24.36	4.98	56.21	60.76	11.36	11.36	12.24	12.24	12.24	12.24	
802			22.97	23.52	3.93	59.47	56.58	11.60	11.60	11.61	11.61	11.61	11.61	
803			24.70	24.81	4.56	57.36	65.12	11.61	11.61	11.81	11.81	11.81	11.81	
804			23.07	25.24	5.87	60.11	57.79	11.57	11.57	11.48	11.48	11.48	11.48	
811			23.15	23.50	3.87	60.36	60.42	12.04	12.04	11.97	11.97	11.97	11.97	
812			24.73	25.81	6.18	61.00	60.81	12.04	12.04	11.81	11.81	11.81	11.81	
813			21.51	24.14	3.84	66.35	68.55	11.86	11.86	12.04	12.04	12.04	12.04	
814			24.18	23.84	4.20	59.90	57.55	11.88	11.88	11.89	11.89	11.89	11.89	
821			23.15	23.62	3.53	55.92	65.04	11.88	11.88	11.89	11.89	11.89	11.89	
822			23.69	25.45	5.54	56.42	60.40	12.00	12.00	11.89	11.89	11.89	11.89	

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

TIME	UIC	20058	SHIP NAME	FF	1087	KIRK	MEDIAN AGE		MEDIAN LOS		MEDIAN AFQT		MEDIAN EDUCATION	
							REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801							21.96	22.46	1.46	3.50	56.50	62.00	12.00	12.00
802							20.67	22.43	2.58	3.25	55.00	61.00	12.00	12.00
803							21.75	23.33	1.04	3.08	71.00	66.00	12.00	12.00
804							21.96	22.67	1.50	3.83	55.00	61.00	12.00	12.00
811							20.67	24.04	1.29	3.33	49.50	60.00	12.00	12.00
812							21.38	22.83	1.54	3.38	61.00	56.50	12.00	12.00
813							25.83	21.75	1.53	3.17	53.00	58.00	12.00	12.00
814							22.17	23.71	0.92	4.25	50.00	57.00	12.00	12.00
821							21.25	23.54	1.33	3.50	54.00	54.50	12.00	12.00
822							21.50	23.33	1.33	3.42	55.00	69.00	12.00	12.00

TIME	UIC	20058	SHIP NAME	FF	1087	KIRK	MEAN AGE		MEAN LOS		MEAN AFQT		MEAN EDUCATION	
							REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801							23.52	24.06	3.40	5.08	60.89	62.67	11.61	11.89
802							23.39	24.34	4.65	4.99	57.84	58.87	11.84	11.91
803							21.86	24.86	2.19	4.88	67.04	64.57	12.13	11.94
804							23.53	24.80	3.29	5.35	55.18	61.74	12.12	11.79
811							23.88	24.40	4.29	3.88	52.50	61.94	11.77	12.29
812							22.54	24.04	3.13	4.52	61.19	60.10	12.00	11.74
813							27.27	23.51	6.28	4.43	58.86	58.86	12.00	11.84
814							23.37	25.78	4.03	6.01	52.08	54.26	11.95	11.97
821							23.53	24.74	4.05	4.71	55.08	54.74	11.76	11.90
822							22.63	24.93	2.55	5.18	54.23	62.02	11.90	12.00

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

TIME	UIC	20112	SHIP NAME		AE 29 MOUNT HOOD		MEDIAN LOS REPORT	MEDIAN LOS DEPART	MEDIAN AGE REPORT	MEDIAN AGE DEPART	MEDIAN AFQT REPORT	MEDIAN AFQT DEPART	MEDIAN EDUCATION REPORT	MEDIAN EDUCATION DEPART
			SHIP NAME	AE 29 MOUNT HOOD										
801			21.17	2.67	48.00	58.00	12.00	12.00	21.67				12.00	12.00
802			20.88	3.21	53.00	51.00	12.00	12.00	22.71				12.00	12.00
803			21.58	3.38	54.00	62.00	12.00	12.00	22.63				12.00	12.00
804			21.83	2.83	56.00	62.50	12.00	12.00	22.67				12.00	12.00
811			21.63	3.08	53.00	54.00	12.00	12.00	22.50				12.00	12.00
812			21.83	3.17	54.00	54.00	12.00	12.00	22.08				12.00	12.00
813			21.08	4.17	50.00	56.00	12.00	12.00	22.83				12.00	12.00
814			22.17	3.54	50.00	58.00	12.00	12.00	22.92				12.00	12.00
821			21.42	4.42	50.00	65.00	12.00	12.00	23.79				12.00	12.00
822			19.83	3.33	49.00	55.00	12.00	12.00	23.21				12.00	12.00
801			23.00	4.20	50.06	55.98	11.83	11.76	23.57				11.83	11.76
802			23.34	3.85	53.52	55.43	11.77	11.89	23.18				11.63	11.79
803			23.97	4.82	54.19	59.69	11.68	11.76	24.47				11.94	11.79
804			23.42	4.48	56.26	57.52	11.69	11.79	24.81				11.87	11.69
811			23.01	4.37	53.12	56.27	11.59	11.62	24.35				11.81	11.69
812			23.82	4.82	53.63	55.27	11.62	11.76	24.45				11.88	11.96
813			23.91	4.82	50.90	57.62	11.81	11.88	24.49				11.88	11.96
814			24.38	5.22	50.87	53.54	11.88	11.76	25.03				11.76	11.96
821			24.38	6.18	49.72	56.78	11.76	11.96	26.10				11.76	11.96
822			21.93	4.44	49.72	56.78	11.76	11.96	26.56				11.76	11.96

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	20123	SHIP NAME	AOR	4	SAVANNAH	MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN EDUCATION	
TIME	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	21.133	22.54	0.832	2.58	55.00	60.00	12.00	12.00	12.00	
802	20.92	21.00	1.00	3.00	58.00	50.00	12.00	12.00	12.00	
803	19.58	22.50	2.08	2.42	55.50	50.00	12.00	12.00	12.00	
804	20.50	21.75	1.33	3.58	56.00	50.00	12.00	12.00	12.00	
811	21.71	21.67	1.88	2.67	56.00	50.00	12.00	12.00	12.00	
812	21.08	23.00	1.00	3.25	55.00	50.00	12.00	12.00	12.00	
813	20.42	22.92	1.17	3.04	52.00	50.00	12.00	12.00	12.00	
814	20.75	22.58	0.83	3.50	60.50	50.00	12.00	12.00	12.00	
821	20.08	22.75	0.92	3.25	49.00	63.00	12.00	12.00	12.00	
822										

UIC	20123	SHIP NAME	AOR	4	SAVANNAH	MEAN AGE	MEAN LOS	MEAN AFQT	MEAN EDUCATION	
TIME	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	22.279	4.49	2.71	4.52	57.69	58.54	11.61	11.91		
802	21.23	4.21	1.79	2.84	53.69	59.09	11.67	11.80		
803	21.46	2.04	1.35	3.54	50.23	58.11	11.65	11.64		
804	21.89	3.84	2.35	4.49	56.73	55.21	11.87	11.71		
811	24.25	4.45	2.44	4.03	55.13	55.93	11.84	11.80		
812	24.87	3.45	2.57	4.35	53.50	61.07	11.50	11.69		
813	23.71	4.59	2.27	4.52	56.20	55.09	12.00	11.92		
814	23.29	3.99	2.77	5.35	60.04	58.66	11.98	11.74		
821	21.26	3.72	1.98	4.69	47.48	58.78	11.67	11.86		
822					49.93	61.75	11.69	11.69		

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC

20143

SHIP NAME

ASR 21 PIGEON

TIME	MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN EDUCATION
	REPORT	DEPART	REPORT	DEPART
801	22.17	4.75	52.50	12.00
802	21.00	4.25	48.50	12.00
803	21.25	4.33	55.00	12.00
804	21.75	4.17	60.00	12.00
811	22.00	4.58	71.00	12.00
812	26.25	4.71	58.00	12.00
813	21.33	4.25	48.00	12.00
814	23.04	4.13	56.00	12.00
821	20.58	4.29	74.00	12.00
822	22.25	3.33	46.50	12.00

TIME	MEAN AGE	MEAN LOS	MEAN AFQT	MEAN EDUCATION
	REPORT	DEPART	REPORT	DEPART
801	22.84	6.05	54.31	11.50
802	21.88	6.82	49.58	11.67
803	26.10	5.84	53.65	12.06
804	24.49	5.83	57.82	12.12
811	24.88	6.45	67.81	12.74
812	26.42	6.55	59.00	12.00
813	24.37	6.25	50.52	11.47
814	25.84	5.28	49.40	11.77
821	23.39	6.61	51.64	11.77
822	23.05	4.16	52.59	12.23

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER
 UIC 20223 S-IP NAME LST 1197 BARNSTABLE CITY

TIME	MEDIAN AGE REPORT	MEDIAN LOS DEPART	MEDIAN AFQT REPORT	MEDIAN EDUCATION DEPART
801	20.458	0.83	47.50	12.00
802	20.58	1.08	55.00	12.00
803	20.17	0.75	55.00	12.00
804	20.08	0.79	52.00	12.00
811	20.33	0.60	52.00	12.00
812	21.00	1.00	58.00	12.00
813	21.92	0.67	58.00	12.00
814	21.00	0.83	51.00	12.00
821	19.92	0.92	49.00	12.00

TIME	MEAN AGE REPORT	MEAN LOS DEPART	MEAN AFQT REPORT	MEAN EDUCATION DEPART
801	21.90	2.43	49.70	11.65
802	21.75	2.30	58.11	11.56
803	22.01	2.50	55.59	11.26
804	21.92	2.51	57.73	11.36
811	22.87	3.34	45.18	11.65
812	22.70	3.31	56.30	11.68
813	22.80	3.49	52.72	11.68
814	22.81	2.88	52.64	11.62
821	23.97	2.28	52.19	11.65
822	22.23	2.33	47.66	11.66

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	20576	SHIP NAME	DD	965	KINKAID	MEDIAN AGE	MEDIAN LCS	MEDIAN AFQT	MEDIAN EDUCATION	
TIME	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	20.38	22.83	1.75	3.50	56.00	61.00	12.00	12.00	12.00	12.00
802	21.75	23.25	2.08	2.50	60.00	59.00	12.00	12.00	12.00	12.00
803	22.50	22.88	1.58	3.25	59.00	61.00	12.00	12.00	12.00	12.00
804	21.42	22.46	1.33	3.13	67.00	62.50	12.00	12.00	12.00	12.00
811	23.08	22.42	2.79	2.50	56.00	66.50	12.00	12.00	12.00	12.00
812	21.54	24.71	1.92	4.08	61.50	60.00	12.00	12.00	12.00	12.00
813	22.50	22.38	1.46	3.29	55.50	65.00	12.00	12.00	12.00	12.00
814	21.58	24.00	2.08	3.17	58.00	58.50	12.00	12.00	12.00	12.00
821	20.83	23.75	0.75	4.63	50.00	64.50	12.00	12.00	12.00	12.00
822	21.67	23.33	1.92	3.58	56.00	60.00	12.00	12.00	12.00	12.00

UIC	20576	SHIP NAME	DD	965	KINKAID	MEAN AGE	MEAN LCS	MEAN AFQT	MEAN EDUCATION	
TIME	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	21.60	23.59	3.32	3.99	62.52	61.59	11.62	12.12	11.74	12.08
802	22.48	25.03	2.95	4.80	61.38	57.64	11.79	11.74	11.08	12.05
803	23.74	24.70	3.09	4.89	58.54	62.60	12.00	12.00	12.00	12.00
804	21.82	23.66	2.12	3.82	65.56	60.90	11.72	11.72	11.68	12.05
811	23.82	23.91	3.17	3.99	59.76	64.60	11.86	11.86	11.28	12.08
812	23.76	25.06	4.11	5.19	59.06	59.42	11.86	11.86	11.93	12.28
813	25.21	24.82	5.13	4.60	50.27	62.09	12.05	12.05	11.98	12.28
814	23.53	25.50	3.55	5.57	61.61	62.75	11.81	11.81	11.98	12.28
821	23.25	25.52	3.26	5.28	50.51	61.57	12.00	12.00	11.98	12.28
822	25.07	25.35	4.68	5.09	54.30	60.96	11.61	11.61	11.98	12.28

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	TIME	20632		LHA 2 SAIPAN		MEDIAN LOS		MEDIAN AFQT		MEDIAN EDUCATION	
		REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
	801	20.429	21.96	0.88	2.83	55.00	62.00	12.00	12.00	11.68	11.68
	802	20.00	22.13	0.92	3.08	53.00	56.00	12.00	12.00	11.61	11.61
	803	21.67	22.21	1.50	3.17	57.00	58.00	12.00	12.00	11.77	11.77
	804	21.00	22.83	1.33	4.25	56.00	58.00	12.00	12.00	11.80	11.80
	811	21.08	23.25	1.75	4.08	60.00	58.00	12.00	12.00	11.96	11.96
	812	22.08	23.92	2.38	4.00	54.00	58.00	12.00	12.00	12.07	12.07
	813	21.46	23.46	1.50	3.79	56.00	58.00	12.00	12.00	11.87	11.87
	814	21.38	23.75	1.08	4.25	52.50	62.00	12.00	12.00	11.80	11.80
	821	21.58	22.75	1.08	3.38	54.00	55.50	12.00	12.00	11.82	11.82
	822										

UIC	TIME	20632		LHA 2 SAIPAN		MEAN LOS		MEAN AFQT		MEAN EDUCATION	
		REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
	801	21.76	24.57	2.51	5.10	55.30	63.47	11.90	11.98	11.68	11.68
	802	22.37	24.03	2.66	4.70	55.43	57.23	11.98	11.69	11.61	11.61
	803	22.65	24.65	2.92	4.16	59.09	58.48	11.65	11.55	11.77	11.77
	804	22.73	24.56	3.16	5.05	59.73	58.63	11.81	11.84	11.80	11.80
	811	22.46	24.45	2.85	4.77	59.81	61.24	11.96	11.98	11.96	11.96
	812	23.60	24.72	3.60	4.99	52.30	60.05	11.30	11.95	12.07	12.07
	813	24.95	26.02	4.93	5.93	52.61	60.93	11.58	11.84	11.87	11.87
	814	23.67	24.73	3.87	4.88	54.58	61.51	11.82	11.84	11.80	11.80
	821	23.51	24.30	3.88	5.25	51.27	61.70	11.58	11.82	11.80	11.80
	822	23.46	24.89	3.61	5.34	52.63	54.70	11.82	11.82	11.80	11.80

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	20642	SHIP NAME	SSN	687	RICHARD	RUSSELL
TIME						
801	21.50	MEDIAN AGE	REPORT	3.96	MEDIAN AFQT	REPORT
802	20.50	DEPART	2.50	3.33	DEPART	12.00
803	22.67	REPORT	1.67	5.04	REPORT	12.00
804	21.79	DEPART	2.50	3.75	DEPART	12.00
811	21.17	REPORT	3.54	4.58	REPORT	12.00
812	22.42	DEPART	3.29	5.17	DEPART	12.00
813	22.92	REPORT	3.88	2.67	REPORT	12.00
814	21.50	DEPART	3.50	6.33	DEPART	12.00
821	23.50	REPORT	3.00	5.42	REPORT	12.00
822	22.83	DEPART	3.08	4.63	DEPART	12.00

UIC	20642	SHIP NAME	SSN	687	RICHARD	RUSSELL
TIME						
801	23.42	MEAN AGE	REPORT	4.98	MEAN AFQT	REPORT
802	21.60	DEPART	4.71	6.04	DEPART	12.08
803	24.77	REPORT	5.66	4.35	REPORT	12.00
804	23.88	DEPART	4.06	6.23	DEPART	12.07
811	22.40	REPORT	3.67	5.88	REPORT	11.79
812	23.02	DEPART	4.07	5.84	DEPART	12.00
813	24.08	REPORT	3.98	3.74	REPORT	12.25
814	25.61	DEPART	6.44	7.86	DEPART	11.95
821	23.61	REPORT	3.74	5.97	REPORT	12.32
822	24.03	DEPART	4.21	5.73	DEPART	11.94

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

TIME	UIC	SHIP NAME	DD	938	JONAS	INGRAM	MEDIAN AGE		MEDIAN LOS		MEDIAN AFQT		MEDIAN EDUCATION	
							REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	52198						20.50	3.58	1.88	3.25	58.00	62.00	12.00	12.00
802							21.29	4.17	1.54	3.25	59.00	69.00	12.00	12.00
803							22.67	3.33	3.29	3.33	60.00	70.00	12.00	12.00
804							21.46	3.00	1.71	3.33	55.50	58.00	12.00	12.00
811							22.08	3.21	2.58	3.00	58.00	54.00	12.00	12.00
812							22.92	4.29	1.46	3.29	54.00	58.00	12.00	12.00
813							22.42	3.13	2.58	4.13	53.00	64.00	12.00	12.00
814							21.58	3.50	2.67	3.50	53.00	64.00	12.00	12.00
821							21.42	3.92	1.83	3.92	56.00	65.00	12.00	12.00
822														
801							23.07	4.98	3.52	4.98	58.16	60.10	12.08	11.85
802							24.34	6.13	4.82	5.13	61.75	65.23	11.64	11.85
803							24.19	4.38	5.09	4.38	61.06	67.33	11.85	11.63
804							23.82	4.47	3.24	4.47	58.20	57.67	11.69	11.73
811							23.83	3.88	3.83	4.88	58.34	58.65	11.59	12.02
812							23.35	5.78	3.33	5.78	59.50	59.50	11.64	11.65
813							24.33	5.04	3.92	5.04	50.93	61.65	11.03	11.75
814							23.37	4.86	3.58	4.86	53.49	62.47	12.55	11.97
821							23.44	5.42	3.46	5.42	56.35	62.06	11.77	11.66
822														

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	52234	SHIP NAME	DDG	40	COONTZ	MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN EDUCATION	
TIME	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	20.92	22.29	1.79	3.29	58.50	50.50	12.00	12.00	12.00	12.00
802	20.88	22.58	1.17	3.83	63.00	67.00	12.00	12.00	12.00	12.00
803	20.96	22.00	1.54	3.00	56.50	60.50	12.00	12.00	12.00	12.00
804	21.00	23.38	1.67	3.75	54.00	59.00	12.00	12.00	12.00	12.00
811	22.00	22.67	0.83	3.88	58.00	59.00	12.00	12.00	12.00	12.00
812	22.08	23.42	2.00	3.88	69.00	61.00	12.00	12.00	12.00	12.00
813	22.08	23.13	1.63	3.88	58.50	60.00	12.00	12.00	12.00	12.00
814	22.33	23.83	1.37	3.63	63.00	64.00	12.00	12.00	12.00	12.00
821	21.17	22.83	1.17	3.67	49.00	58.00	12.00	12.00	12.00	12.00
822	22.17	22.58	2.75	3.75						

UIC	52234	SHIP NAME	DDG	40	COONTZ	MEAN AGE	MEAN LOS	MEAN AFQT	MEAN EDUCATION	
TIME	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	23.40	24.46	3.48	4.66	56.34	53.18	11.86	11.68	11.86	11.68
802	22.08	24.56	3.10	4.94	64.62	64.64	11.76	11.95	11.76	11.95
803	22.77	23.61	3.61	4.16	58.70	61.36	11.45	11.90	11.45	11.90
804	23.05	23.33	3.31	4.32	55.94	63.71	11.60	11.81	11.60	11.81
811	23.12	23.80	3.47	4.49	53.90	61.54	12.00	11.69	12.00	11.69
812	24.40	25.07	4.13	4.05	58.61	60.66	11.86	11.83	11.86	11.83
813	24.15	26.02	3.39	5.59	62.76	60.30	11.76	11.75	11.76	11.75
814	23.59	25.17	3.20	5.18	58.21	59.00	11.79	11.82	11.79	11.82
821	25.52	24.80	4.57	5.33	48.17	65.22	11.94	11.70	11.94	11.70
822	25.46	24.86	4.83	5.19	48.16	60.23	11.72	11.74	11.72	11.74

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

TIME	UIC	52686	SHIP NAME DDG 46 PREBLE			
			MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN EDUCATION
801			REPORT 22.00	REPORT 2.25	REPORT 64.00	REPORT 12.00
802			DEPART 22.17	DEPART 3.17	DEPART 60.00	DEPART 12.00
803			REPORT 21.63	REPORT 3.17	REPORT 57.50	REPORT 12.00
804			DEPART 23.50	DEPART 4.08	DEPART 56.00	DEPART 12.00
811			REPORT 21.25	REPORT 3.50	REPORT 60.00	REPORT 12.00
812			DEPART 22.58	DEPART 3.50	DEPART 55.00	DEPART 12.00
813			REPORT 20.38	REPORT 3.50	REPORT 67.00	REPORT 12.00
814			DEPART 22.17	DEPART 4.25	DEPART 70.00	DEPART 12.00
821			REPORT 21.50	REPORT 3.83	REPORT 55.00	REPORT 12.00
822			DEPART 23.33	DEPART 4.75	DEPART 62.00	DEPART 12.00
			REPORT 20.50	REPORT 3.33	REPORT 50.00	REPORT 12.00
			DEPART 23.25	DEPART 3.33	DEPART 67.00	DEPART 12.00

TIME	UIC	52686	SHIP NAME DDG 46 PREBLE			
			MEAN AGE	MEAN LOS	MEAN AFQT	MEAN EDUCATION
801			REPORT 23.39	REPORT 3.11	REPORT 61.33	REPORT 12.11
802			DEPART 23.63	DEPART 4.40	DEPART 59.52	DEPART 11.91
803			REPORT 24.72	REPORT 5.16	REPORT 49.34	REPORT 11.64
804			DEPART 23.15	DEPART 3.75	DEPART 56.34	DEPART 11.68
811			REPORT 24.83	REPORT 5.50	REPORT 66.69	REPORT 11.97
812			DEPART 24.74	DEPART 2.78	DEPART 57.81	DEPART 11.68
813			REPORT 21.94	REPORT 4.59	REPORT 58.26	REPORT 11.97
814			DEPART 22.60	DEPART 4.27	DEPART 59.15	DEPART 11.66
821			REPORT 25.12	REPORT 4.72	REPORT 62.76	REPORT 11.76
822			DEPART 23.52	DEPART 3.87	REPORT 51.87	DEPART 11.87
			REPORT 23.52	REPORT 5.22	REPORT 54.32	REPORT 12.00
			DEPART 25.22	DEPART 5.42	REPORT 67.34	DEPART 11.90

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	52699	SHIP NAME	CG 24 REEVES	MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN EDUCATION	
TIME	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	22.42	23.42	2.67	3.13	58.00	59.50	12.00	12.00
802	20.71	22.38	1.13	2.96	49.50	61.00	12.00	12.00
803	20.96	23.67	1.00	3.71	64.00	63.00	12.00	12.00
804	22.83	22.04	2.92	3.35	54.00	60.00	12.00	12.00
811	20.50	22.54	0.83	3.25	54.00	60.00	12.00	12.00
812	20.83	22.71	1.71	2.96	65.00	64.50	12.00	12.00
813	22.38	22.50	2.04	3.50	63.00	70.00	12.00	12.00
814	23.25	23.13	2.25	3.75	60.00	64.50	12.00	12.00
821	20.33	23.71	1.00	3.79	44.00	64.50	12.00	12.00
822	22.33	23.75	3.08	4.33	56.00	56.00	12.00	12.00

UIC	52699	SHIP NAME	CG 24 REEVES	MEAN AGE	MEAN LOS	MEAN AFQT	MEAN EDUCATION	
TIME	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	24.41	25.30	4.75	5.65	56.96	63.00	11.76	11.76
802	22.23	23.69	2.71	4.35	52.21	61.38	11.75	11.69
803	22.75	23.51	2.64	5.64	64.21	60.71	11.88	11.73
804	25.28	24.91	5.63	5.27	58.32	60.06	11.89	11.92
811	22.03	23.60	2.49	4.09	63.07	61.80	11.80	11.32
812	22.87	23.76	3.69	3.92	64.07	64.97	12.02	11.89
813	24.40	24.01	4.47	4.25	56.19	67.02	11.97	11.82
814	23.33	24.65	3.75	4.98	62.29	63.32	11.97	11.93
821	22.41	24.96	3.25	5.41	48.63	63.50	11.71	11.87
822	23.07	25.49	3.78	5.97	55.82	57.88	12.03	11.92

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC 5270C STIP NAME CGN 25 BAINBRIDGE

TIME	MEDIAN AGE REPORT	MEDIAN LOS REPORT	MEDIAN AFQT REPORT	MEDIAN EDUCATION REPORT
801	22.75	3.17	70.00	12.00
802	21.50	2.58	66.50	12.00
804	22.25	2.17	72.50	12.00
811	21.83	2.83	71.00	12.00
812	22.25	2.17	65.00	12.00
813	21.92	2.83	65.00	12.00
814	22.67	1.92	67.00	12.00
821	22.25	2.50	65.50	12.00
822	21.83	2.00	62.00	12.00

TIME	MEAN AGE REPORT	MEAN LOS REPORT	MEAN AFQT REPORT	MEAN EDUCATION REPORT
801	24.11	5.08	68.78	11.89
802	23.96	4.35	63.82	12.09
803	23.51	3.48	67.43	11.87
804	23.76	4.18	71.35	12.17
811	22.90	4.53	66.46	11.84
812	24.03	4.35	62.59	11.90
813	22.69	3.23	69.23	11.96
814	24.93	4.61	62.22	12.11
821	23.68	4.25	58.15	11.75
822	23.50	3.48	60.50	11.91

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

TIME	UIC	54057	SHIP NAME	FF	1062	WHIPPLE	MEDIAN LOS		MEDIAN AFQT		MEDIAN EDUCATION	
							REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801							2.79	3.58	52.00	65.00	12.00	12.00
802							1.25	3.08	57.50	63.00	12.00	12.00
803							2.25	2.83	58.00	60.00	12.00	12.00
804							2.17	4.00	64.00	55.00	12.00	12.00
811							2.08	3.04	60.00	56.00	12.00	12.00
812							1.67	3.67	50.00	65.00	12.00	12.00
813							3.08	3.33	53.50	70.00	12.00	12.00
814							0.92	3.46	64.00	58.00	12.00	12.00
821							1.79	4.50	58.00	60.00	12.00	12.00
822												

TIME	UIC	54057	SHIP NAME	FF	1062	WHIPPLE	MEAN LOS		MEAN AFQT		MEAN EDUCATION	
							REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801							5.21	5.39	50.70	64.82	11.75	11.64
803							3.28	4.71	58.18	61.72	11.73	11.89
804							3.05	3.89	58.36	60.47	11.76	11.86
811							4.37	5.93	64.65	55.69	11.91	11.98
812							3.97	4.61	60.96	56.27	12.07	11.91
813							4.12	5.32	58.67	61.27	11.74	11.67
814							5.08	5.13	51.00	68.65	12.09	12.00
821							2.59	5.17	58.38	66.26	11.88	11.88
822							3.91	6.26	53.55	57.85	11.84	11.74

COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC 54064

SHIP NAME FF 1069 BAGLEY

TIME	MEDIAN AGE REPORT DEPART	MEDIAN LOS REPORT DEPART	MEDIAN AFQT REPORT DEPART	MEDIAN EDUCATION REPORT DEPART
801	22.38	3.17	58.00	12.00
802	22.75	3.42	62.00	12.00
803	22.25	4.08	56.00	12.00
804	19.92	3.08	64.00	12.00
811	22.08	4.25	62.50	12.00
812	23.67	4.42	69.00	12.00
813	22.42	4.21	67.00	12.00
814	21.83	4.17	62.00	12.00
821	22.00	4.25	60.00	12.00
822	22.75	4.17	60.00	12.00
		4.54	62.00	12.00

TIME	MEAN AGE REPORT DEPART	MEAN LOS REPORT DEPART	MEAN AFQT REPORT DEPART	MEAN EDUCATION REPORT DEPART
801	24.52	5.59	59.45	11.70
802	25.91	5.67	58.49	11.91
803	24.38	3.13	56.78	11.93
804	21.27	1.81	66.00	11.54
811	24.69	3.66	62.00	11.77
812	23.71	3.97	58.95	11.67
813	23.78	2.61	64.00	12.10
814	23.74	3.08	54.93	11.73
821	23.48	4.17	58.15	11.81
822	24.09	3.30	60.44	11.78
		6.14	63.08	11.78

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