

AD-754 642

ANALYSIS OF ARMY HELICOPTER INSPECTION
REQUIREMENTS

Bruce B. Wierenga, et al

RCA Aerospace Systems Division

Prepared for:

Army Air Mobility Research and Development
Laboratory

September 1972

DISTRIBUTED BY:

NTIS

National Technical Information Service
U. S. DEPARTMENT OF COMMERCE
5285 Port Royal Road, Springfield Va. 22151

AD754642

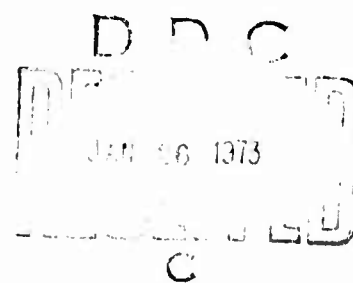
AD

USAAMRDL TECHNICAL REPORT 72-35

ANALYSIS OF ARMY HELICOPTER INSPECTION REQUIREMENTS

By
Bruce B. Wierenga
Douglas O. Blake
Richard E. Hanson
Thomas N. Cook

September 1972



**EUSTIS DIRECTORATE
U. S. ARMY AIR MOBILITY RESEARCH AND DEVELOPMENT LABORATORY
FORT EUSTIS, VIRGINIA**

**CONTRACT DAAJ02-71-C-0047
RCA/GOVERNMENT AND COMMERCIAL SYSTEMS
AEROSPACE SYSTEMS DIVISION
BURLINGTON, MASSACHUSETTS**

Approved for public release;
distribution unlimited.



Reproduced by
NATIONAL TECHNICAL
INFORMATION SERVICE
U S Department of Commerce
Springfield VA 22151

287

DISCLAIMERS

The findings in this report are not to be construed as an official Department of the Army position unless so designated by other authorized documents.

When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission, to manufacture, use, or sell any patented invention that may in any way be related thereto.

Trade names cited in this report do not constitute an official endorsement or approval of the use of such commercial hardware or software.

DISPOSITION INSTRUCTIONS

Destroy this report when no longer needed. Do not return it to the originator.

ACCESSION for	
NTIS	Write Section ☒
C C	Edit Section ☐
UAA	☐
JUSTIFICATION	
BY	
DISTRIBUTION/AVAILABILITY CODES	
Dist.	FILED OR SPECIAL
A	

UNCLASSIFIED

Security Classification

DOCUMENT CONTROL DATA - R & D		
<i>(Security classification of title, body of abstract and indexing annotation must be entered when the overall report is classified)</i>		
1. ORIGINATING ACTIVITY (Corporate author) RCA/Government and Commercial Systems Aerospace Systems Division Burlington, Massachusetts		2a. REPORT SECURITY CLASSIFICATION Unclassified
		2b. GROUP
3. REPORT TITLE ANALYSIS OF ARMY HELICOPTER INSPECTION REQUIREMENTS		
4. DESCRIPTIVE NOTES (Type of report and inclusive dates) Final Report		
5. AUTHOR(S) (First name, middle initial, last name) B. B. Wierenga, D. O. Blake, R. E. Hanson - RCA Corporation T. N. Cook - Kaman Aerospace Corporation		
6. REPORT DATE September 1972	7a. TOTAL NO. OF PAGES 285	7b. NO. OF REFS
8a. CONTRACT OR GRANT NO. DAAJ02-71-C-0047	9a. ORIGINATOR'S REPORT NUMBER(S) USAAMRDL Technical Report 72-35	
b. PROJECT NO.	9b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report)	
c. Task 1F162205A11905		
d.		
10. DISTRIBUTION STATEMENT Approved for public release; distribution unlimited.		
11. SUPPLEMENTARY NOTES		12. SPONSORING MILITARY ACTIVITY Eustis Directorate, U. S. Army Air Mobility Research and Development Laboratory, Fort Eustis, Virginia
13. ABSTRACT Preventive maintenance scheduled inspection requirements were analyzed to select one inspection concept which could be applied effectively to all typical types of Army helicopters. A computer model was developed for comparison of alternate practicable inspection schemes. The model evaluates the impact of different inspection cycle times and variations in scheduling of specific components for inspection within that cycle. Many candidate inspection concepts were structured, scheduled, and analyzed with the model. The preferred concept was selected on the basis of a figure of merit which reflected the comparative reliability, safety, and availability achieved with each concept. Engineering analysis was used to evaluate the cost of each concept and those characteristics of the system which could not be quantified. Study results indicate that present inspection cycle times can be increased to provide increased efficiency and maintenance cost savings with little reduction in mission reliability. The modeling and engineering evaluations result in the selection of the phased-inspection concept with 100-hour interval and 800-hour cycle times as the recommended inspection system for Army helicopters. This concept provides a high figure of merit based upon reliability and availability considerations and indicates substantial cost advantage over the other concepts. In addition, phased inspection involves less severe disruptions to aircraft operating schedules since each inspection point represents a shorter, more manageable work package than in other concepts.		

DD FORM 1473

NOV 66

REPLACES DD FORM 1473, 1 JAN 66, WHICH IS OBSOLETE FOR ARMY USE.

UNCLASSIFIED

Security Classification

ia

14. KEY WORDS	LINK A		LINK B		LINK C	
	ROLE	WT	ROLE	WT	ROLE	WT
Preventive maintenance scheduled inspection						
Inspection concept						
Inspection interval						
Inspection cycle						
Inspection mix						
Failure onset theory						
Aircraft configuration file						
Master configuration file						
Helicopter inspection computer model						



DEPARTMENT OF THE ARMY
U. S. ARMY AIR MOBILITY RESEARCH & DEVELOPMENT LABORATORY
EUSTIS DIRECTORATE
FORT EUSTIS, VIRGINIA 23604

The Eustis Directorate of the U.S. Army Air Mobility Research and Development Laboratory is conducting a series of investigations of current Army helicopter maintenance operations and procedures, which include scheduled maintenance inspection systems and practices. It is intended that the results of these investigations will be directed toward determining the best way to achieve economic inspection and maintenance procedures while keeping abreast of the rapid advances in aircraft design.

This contract was awarded to analyze the existing scheme in aircraft maintenance scheduled inspection and to optimize a desirable system that would have universal application to the various helicopters in the Army inventory.

The findings presented herein are considered to be reasonable within the boundaries of a generic approach and may be directly usable in establishing future inspection schemes. The results of this study will be used in future studies dealing with helicopter maintenance data collection and helicopter maintenance procedures.

The technical monitor of this contract was Mr. William B. Sweeney, Reliability and Maintainability Division.

ic

Task 1F162205A11905
Contract DAAJ02-71-C-0047
USAAMRDL Technical Report 72-35
September 1972

ANALYSIS OF ARMY HELICOPTER
INSPECTION REQUIREMENTS

Final Report

By

Bruce B. Wierenga
Douglas O. Blake
Richard E. Hanson
RCA Corporation

Thomas N. Cook
Kaman Aerospace Corporation

Prepared by

RCA/Government and Commercial Systems
Aerospace Systems Division/Burlington, Massachusetts

for

EUSTIS DIRECTORATE
U.S. ARMY AIR MOBILITY RESEARCH AND DEVELOPMENT LABORATORY
FORT EUSTIS, VIRGINIA

Approved for public release; distribution unlimited.

SUMMARY

This analysis of Army helicopter inspection requirements was performed by the RCA Corporation with the participation of the Kaman Aerospace Corporation. The major purpose was to perform a substantive engineering analysis of aircraft maintenance scheduled inspection to select and recommend the inspection concept which can most effectively be applied to all typical helicopter types required within the planned Army mission envelope. In addition, a checklist for use in the technology review of future aircraft design was developed.

Selection of the recommended inspection system involved analysis of the component complement of five helicopters. A computer model was developed for comparison of alternate practicable inspection schemes. This model evaluates the impact of different inspection cycle times and variations in scheduling of specific components for inspection within that cycle. Pertinent factors related to the effectiveness of inspection schemes are calculated. These factors provide a measure of safety, reliability, availability, and cost for use in the comparison. Component maintenance history data (RAMMIT, USABAAR, NAVY 3M) was evaluated and processed to form a master file of component data applicable to the evaluation. Candidate inspection concepts developed through review of Army doctrine, knowledge of Navy and Air Force practices, and engineering review component data were then evaluated within the model.

Engineering analyses and modeling results clearly indicate that present inspection cycle times can be increased to provide increased efficiency and maintenance cost savings with little reduction in mission reliability. The evaluations resulted in the selection of the phased inspection concept with 100-hour interval and 800-hour cycle times as the recommended inspection system for Army helicopters. This concept provides a high figure of merit based upon reliability and availability considerations and indicates substantial cost advantage over the other concepts. In addition, phased inspection involves less severe disruptions to aircraft operating schedules since each inspection point represents a shorter, more manageable work package than in other concepts.

FOREWORD

This study of helicopter inspection requirements was performed under Contract DAAJ02-71-C-0047 with the Eustis Directorate, U.S. Army Air Mobility Research and Development Laboratory, Fort Eustis, Virginia. The work was authorized by DA Task 1F162205A11905. The study was under the general technical cognizance of Mr. William B. Sweeney and Major Vincent G. Ripoll of the Reliability and Maintainability Division. The analysis resulted in selection of the preventive maintenance scheduled aircraft inspection system best applicable to all typical Army helicopter types.

The authors wish to acknowledge the contributions made to this program by Messrs. L.R. Hulls of the RCA Corporation and Frank E. Stares of the Kaman Aerospace Corporation technical staffs. Acknowledgement of the contribution of Army personnel from the Fort Eustis aircraft maintenance training center who provided valuable study input data is also extended.

Preceding page blank

TABLE OF CONTENTS

	<u>Page</u>
SUMMARY	iii
FOREWORD	v
LIST OF ILLUSTRATIONS	ix
LIST OF TABLES	xi
DISCUSSION	1
BACKGROUND AND STATEMENT OF THE PROBLEM	1
STUDY OBJECTIVES	2
INSPECTION SYSTEM DESIRED CHARACTERISTICS	2
STUDY APPROACH	4
INSPECTION MODEL DESCRIPTION	8
Model Structure	9
Aircraft Configuration Files	11
Program Input Data	12
Model Calculations	13
Model Failure Theory	15
DATA BASE AND DATA DEVELOPMENT	21
Aircraft Type Configuration File	21
Master Configuration File Derivation	21
Navy 3-M System Data	22
3-M Data Processing	22
R&M Statistical Summary	27
T _{os} and Abort Data Tape	30
MCF Data Reduction	30
MCF File Structure	31
Mission Profiles	32
DEVELOPMENT OF THE INSPECTION CONCEPT	34
Structuring Inspection Schemes	34

	<u>Page</u>
Structuring Flight-Readiness Inspections	34
Structuring Scheduled Inspections	37
Candidate Inspection Concept Development	38
Development of Component Inspection Mixes	38
Inspection Concepts Considered	41
Model Application	41
Figure of Merit for Concept Selection	44
Inspection Concept Comparison Analyses	47
Figure-of-Merit Screening Analysis of Results	47
Evaluation of Most Promising Concepts	54
Recommended Inspection Concept	59
 SELECTED INSPECTION CONCEPT REVIEW AND DEVELOPMENT.....	 62
Inspection Crew Sizes	62
Review of Army Helicopter Inspection Desired Characteristics	 64
Selected Concept - Phased Inspection Schedule	68
Technology Review Checklist for Helicopter Inspections.	68
 LIMITATIONS TO THE ANALYSIS.....	 81
 CONCLUSIONS.....	 83
 RECOMMENDATIONS.....	 84
 APPENDIXES	
I Inspection Modeling Technique Description	85
II List of Documentation.....	110
III Aircraft Configuration File	117
IV Inspection Analysis Master Configuration File	140
V Configuration File Code Listings	176
VI Master Component Inspection Mixes	181
VII Flight-Readiness Inspection Mix	191
VIII Model Option C Outputs	201
IX Component Mix for Recommended Inspection Scheme	232
X Model Option A and B Outputs for Recommended Inspection Scheme (UH-1)	 246
 DISTRIBUTION	 275

LIST OF ILLUSTRATIONS

<u>Figure</u>		<u>Page</u>
1	Study Flow Chart	7
2	Inspection Analysis Model Schematic	10
3	Inspection Scheme Summary Matrix	11
4	Model Calculation Flow	14
5	Failure Rate Versus Operating Time	16
6	Component Deterioration and T_{os}	18
7	Variation in T_{os} Versus Inspection Interval ...	20
8	3-M Data Processing Flow	23
9	Navy 3-M Record Formats	25
10	Reformatted 3-M Records	26
11	R&M Statistical Summary	28
12	Inspection Analysis Master Configuration File .	33
13	Reliability and Availability Versus Inspection Period	45
14	Utility Type Helicopter Periodic Inspection Concept	50
15	Utility Type Helicopter Intermediate/Periodic Inspection Concept	51
16	CH-Medium Helicopter Periodic Inspection Concept	52
17	CH-Medium Helicopter Intermediate/Periodic Inspection Concept	53
18	Model Option C Summary Matrix - Inspection Scheme 9	56

<u>Figure</u>		<u>Page</u>
19	Model Option C Summary Matrix - Inspection Scheme 11	57
20	Model Option C Summary Matrix - Inspection Scheme 22A.....	58
21	Utility Type Helicopter Mission Reliability Versus Cost	60
22	CH-Medium Helicopter Mission Reliability Versus Cost	61
23	Sample G(t) Cases	94

LIST OF TABLES

<u>Table</u>		<u>Page</u>
I	Data Base - Record Types by Model	24
II	Basic Mission Profiles	35
III	Inspection Schedule Index	42
IV	Aircraft Weighting Factors	47
V	Figure-of-Merit Summary	49
VI	Crew Size and Availability for Scheme 22	63

DISCUSSION

BACKGROUND AND STATEMENT OF THE PROBLEM

In 1951, studies were undertaken to evaluate an optimum maintenance inspection system that could be standardized and applied throughout the United States Army. The systems evaluated then were derived from the U.S. Air Force established preventive maintenance inspection systems. The U.S. Army aviation world has experienced a revolution in aircraft designs and configurations since that time; however, this revolution has never been paralleled by a close study of new or better systems in the preventive maintenance inspection scheme. Consequently, three different systems are presently being used by various activities of the U.S. Army. This application of different schemes to Army aircraft types has created the need for differences in the applicable 20-series technical manuals and modification in maintenance practices and reporting procedures.

Broad and intensive operational usage of military helicopters during the last decade has resulted in the development of a wealth of knowledge of helicopter maintenance and inspection requirements. This knowledge is contained within the maintenance records collected through the military services reporting systems and in the know-how of skilled aircraft maintenance personnel. These data sources are available for examination in evaluating many aspects of helicopter maintenance.

Government research documents in the Defense Documentation Center revealed numerous studies of special inspections but not a single study in the preventive maintenance scheduled inspection systems as prescribed by the Department of the Army since the early 1950's. This situation indicated that the evolution of preventive maintenance scheduled inspection had not followed the technological advancement of Army aviation. Yet presently available data indicated that a fruitful evaluation of the possible concepts could be accomplished. This led to the decision to contract for the analysis of Army helicopter inspection requirements described in this report.

STUDY OBJECTIVES

The basic objective of the work performed was to analyze the existing schemes in aircraft maintenance scheduled inspection for the typical current Army helicopter types (LOH, UH, AH, CH-Medium and CH-Heavy) and to select and recommend an optimum concept. The inspection system selected was required to be that system which can most effectively be applied as standard for all aircraft types in all or any size units regardless of assigned mission or geographical location.

As a secondary objective, preparation of a checklist for use in technology reviews of future designs as they relate to helicopter maintenance inspection was required.

INSPECTION SYSTEM DESIRED CHARACTERISTICS

A number of basic characteristics were sought in selection of the optimum helicopter inspection system. As part of the study plan formulation, each of these was evaluated to determine the extent to which factors were interrelated and the impact of each on the analytical technique to be used. Certain basic considerations evolved from this analysis and contributed to development of the technical approach:

Universal Application (Same for All Aircraft). This was considered to be a primary study goal. The inspection system ultimately adopted should be suitable to any size or complexity helicopter in the foreseeable Army inventory and should also accommodate variations in force size, use levels, mission assignment, and operating environments. At the outset it was recognized, however, that a given inspection concept might well prove to be more desirable for certain classes of aircraft and operating conditions than for others, but that the objective was to structure the one concept best for all aircraft types. It was important that this objective be foremost among the study goals.

Accomplished Predominantly by Crew Chief. The optimum inspection system should minimize the number and types of inspection personnel required. The flight-readiness inspections (pre-flight, daily, etc.) should not require skills beyond those possessed by the crew chief and should not be more time-consuming than is practicable for one man to perform. It would be desirable to have the crew chief accomplish at least part of

the scheduled inspections, possibly all on the smaller, less complex aircraft. Any endeavor to minimize the size of the inspection crew should, however, seek a proper balance with other, equally important factors such as inspection efficiency, downtime, etc. Some additional personnel and skills would obviously be required for the scheduled inspections, especially for the larger, more complex aircraft.

Minimum Special Inspections. Special inspection requirements are largely of two types. First there are those predicated upon the occurrence of unusual events such as hard landings, rotor overspeeds, etc. Special examinations are required in these circumstances to ascertain the extent of damage suffered by certain critical components of the aircraft and are often made necessary by certain unique characteristics of the design. Other special inspection requirements arise from the need to employ interim precautions until a known hardware problem has been corrected. Neither of these kinds of inspections can be dealt with effectively in a general study of inspection systems. As mentioned earlier, moreover, numerous studies had already been conducted in this area. The requirement to minimize special inspections was therefore, more pointedly, a requirement to avoid introducing new special inspections as part of the recommended system.

Clock Hours Per Aircraft Type Per Cycle of Inspections. A target number of inspection clock hours per one-hundred-hour inspection cycle was established as an objective for each of five basic helicopter types being covered in the study. A one-hundred-hour cycle was used to permit equitable comparisons between inspection systems involving different cycle times. Maintenance crew size was viewed as the dominant factor in the control of inspection time, one which had to be balanced against considerations of personnel efficiency. The targeted clock hours of inspection per cycle per aircraft type were:

LOH	4
UH	20
AH	24
CH-Medium	40
CH-Heavy	28

It should be noted that this study did not address avionics and weapon system inspection requirements. It was assumed that inspection time for these items was not included within the targeted clock hours indicated above.

High Probability of Detecting Incipient Failure. The probability of detecting an incipient failure is related to the failure characteristic, the frequency at which the item is inspected, and the manner in which it is inspected. Some items fail randomly and suddenly, providing no opportunity for prior detection. For others, symptoms of impending failure are sporadic or inconclusive. And in yet other cases, the evidence of failure and its symptoms are known, but presently available inspection technology is not effective. The objective in the present study was addressed to the scheduling problem, i.e., the selection of inspection intervals which would maximize the probability of incipient failure detection for the various conditions that might prevail.

Chronological and Systematic Inspection. The inspection systems considered should not involve irregular inspection intervals, gross variance in the amount of work performed at each inspection point, or other characteristics which would unduly complicate the planning and scheduling functions. Overall design of the system should promote inspection efficiency.

STUDY APPROACH

The desired system characteristics and program objectives discussed above established the basic scope and direction of the study. Review of these goals indicated the broad analysis approach to be implied by the nature of the study itself. The optimum inspection system is the one which provides the maximum effectiveness for the least cost. Comparative achievement of inspection system desired characteristics by candidate inspection schemes must then be described and measured in a cost-effectiveness context.

Many indicators of effectiveness might be applied to an inspection system. Inspection is a maintenance technique which seeks to enhance the reliability and safety of the aircraft while simultaneously promoting mission readiness and maintenance economy. Obviously, these goals are not always entirely compatible. All of the effectiveness indicators for an inspection system are ultimately related, however, to the comparative frequency of preventive versus unscheduled repairs. Preventive repairs are preferred because flight schedule disruptions are less frequent, secondary damage due to catastrophic failure is minimized, and repairs are generally less costly. Moreover, unscheduled repairs (failures) reduce mission

reliability and safety and are detrimental to operational availability. The important quantitative measures of an inspection system's effectiveness are, then, the levels of aircraft reliability, safety, and readiness attained with the system. Also significant are such qualitative characteristics as the ability to plan and schedule inspections efficiently and the adaptability of the system to diverse operating schedules, environmental conditions, and mission demands. Intangible factors such as pilot confidence, while inherently involved in the system's effectiveness, are intuitively difficult to assess.

On the cost side of the problem, many factors might be considered. It is reasonable to conclude, however, that relative cost differences between competing inspection systems can be adequately portrayed by the direct labor expenses involved. Overhead and administrative expenses, facilities, and logistics costs can be expected to vary, for the most part, in a direct relationship to the labor demand. Moreover, a single, relative measure of cost, such as direct labor, uncomplicates the comparisons between systems.

Approaching the problem called for a method of structuring and scheduling various inspection concepts and measuring progress toward desired characteristics against cost or man-hours. The methodology used would have to provide realistic, quantitative comparisons between candidate schemes and should be relatively free of subjective judgement in the final selection process. Not all of the objectives were amenable to quantification, however, and these would have to be evaluated through engineering analysis.

The technical approach selected centered around developing and applying an analytical computer model. Several advantages were offered by the computer-assisted analysis that would not have been present with a manual treatment of the study. Speed and flexibility are the most important of these. Use of a computer model allowed the analyst to specify different combinations of items and inspection points quickly and to test many variations. It also facilitated the many iterations needed to optimize inspection intervals and component mixes.

The data bank (master configuration file) on which the computer model operates contains records representing the generic types of components typical of current-day helicopters. Each record

contains, in addition to the identity of the component, data describing the typical failure, maintenance and inspection characteristics for that component. The data bank was compiled through an extensive analysis of relevant aircraft historical records and technical data. Historical records analyzed included U.S. Army data for the five basic rotary wing aircraft types considered in the study and U.S. Navy data for aircraft equivalent to those Army types. Navy records utilized for all the helicopter types except the LOH were for Marine Corps aircraft which were operated in an environment similar to that of the Army.

The inspection analysis model structures a specified helicopter configuration by selectively extracting records from the data file in building-block fashion as each helicopter system is analyzed. Companion data files, called the aircraft type configuration files, define each of the helicopter configurations in terms of the components and component quantities comprising the various subsystems. As a given aircraft configuration is processed by the computer model, the background data pertinent to each component is retrieved from the master file using the applicable aircraft type file as a directory. Other inputs to the computer model are helicopter utilization factors and data which defines the inspection scheme, i.e., inspection cycles, intervals, and component mixes.

The model outputs provided the baseline data for evaluation of the competing inspection schemes. The effectiveness indices generated by the modeling were used to produce figures of merit which, when combined with other engineering analyses, were used to rank the various concepts.

Figure 1 is a flow chart which shows the progression of study actions. After completion of planning, the analysis followed parallel paths of data acquisition and analysis and computer model development. After the data bank had been compiled and the model programmed, an initial set of candidate inspection concepts was developed. At this point, exercising of the computer model could be effectively initiated. Logic debugging runs were made and the workability of the model was established. Baseline runs were then completed, and the model was finalized through minor modification to produce better visibility in the results. Analysis of results from additional runs which utilized the finalized model allowed the development of a figure of merit for concept comparison. In this development it became apparent

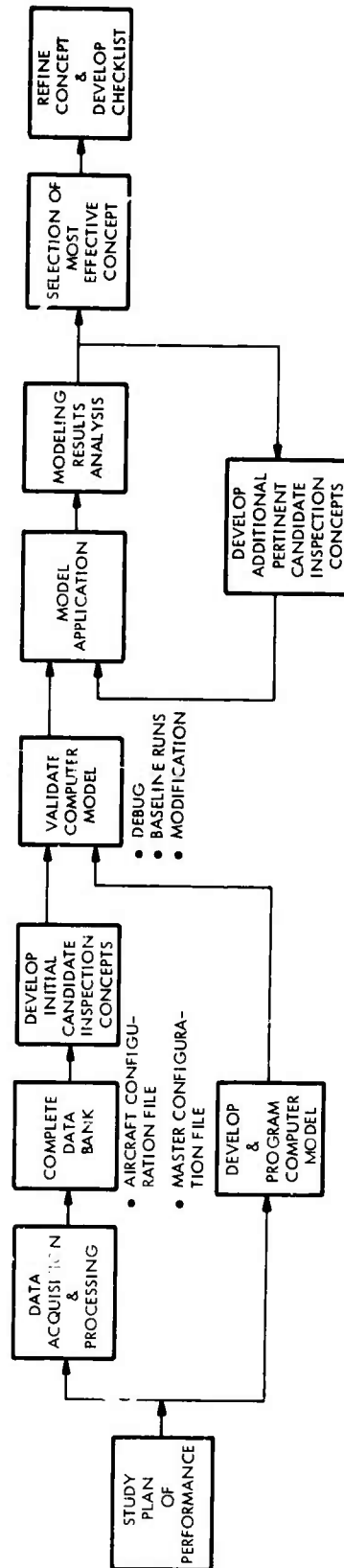


Figure 1 . Study Flow Chart.

that utilization of the figure of merit would most effectively serve as a screening function to select those schemes with the best promise, and that engineering judgement should then be applied in the final selection to assure consideration of all factors including those difficult to quantify.

The most effective inspection concept was selected following an iterative process of model application, results analysis, and candidate inspection scheme development until the sensitivity of the modeling to the input variables was explored and a full spectrum of schemes was evaluated. After selection of the recommended concept, further analyses were performed to refine and develop the concept. The knowledge acquired as a result of the inspection system modeling was integrated into a checklist for technology reviews of future designs as they relate to helicopter maintenance inspection.

INSPECTION MODEL DESCRIPTION

The computerized mathematical model developed in the study is structured to provide a systematic method for evaluating the effectiveness of alternate inspection concepts. The magnitude of the aircraft inspection process in terms of the number of components involved places practical constraints on the analytical processes which could be applied in the model. Essentially, the analysis must be sufficiently general to permit its application to all the components encompassed by the inspection procedure. The parameters required to perform the calculations must also be readily extractable from existing inspection data.

The complete model uses the facility of the digital computer to sequentially apply the basic analytical concept to the total spectrum of components. The results of all these analyses are then combined to provide a profile of the characteristics of the inspection scheme. The profile can be presented in a variety of ways to emphasize such key factors as maintenance man-hours per flight-hour, aircraft availability, etc.

In the study a simple analytical method was developed which enables the number of good, failing, and failed components in a population to be computed as a function of the inspection interval expressed in flight-hours. The computation uses component parameters which can be extracted in a straightforward manner from the available inspection data.

The model produces the profile of the characteristics of the inspection concept on the basis of a data input which supplies the component parameters, the component mix in the aircraft, and a formal description of the inspection concept which quantitatively defines inspection intervals. Mission profile information contained within the model data bank provides the capability of converting calendar time to flight hours when a calendar inspection concept is to be evaluated.

Model Structure

The inspection analysis model, shown schematically in Figure 2, is designed to perform several basic functions. It will define each of the specified helicopter configurations in terms of the types and quantities of components comprising its various subsystems. This is accomplished by means of the aircraft configuration files, which store all of the necessary component background data required for the analysis. Other inputs to the model include the data defining the inspection scheme, the aircraft types, and inspection crew sizes to be evaluated.

The computer program combines the input parameters with the component characteristics and performs a series of calculations which yield expected values for preventive repairs, failures, and maintenance man-hours for inspection and repair under the inspection scheme. This process is continued until all components comprising one helicopter configuration have been evaluated. Next the expected values are processed to provide a summary of selected indicators for the helicopter type under the inspection scheme. Cycling through the model continues until all of the helicopter configurations have been evaluated. At the conclusion of the computer run, a matrix is generated which displays the summary of expected value outputs shown in Figure 3. The figure shows the data matrix printed out as the summary of results for each computer run.

Comparison of results from different computer runs led to model iterations with input parameters modified to investigate the impact of variations in significant areas. This iterative process was followed until sufficient information was available to allow selection of the optimum inspection concept.

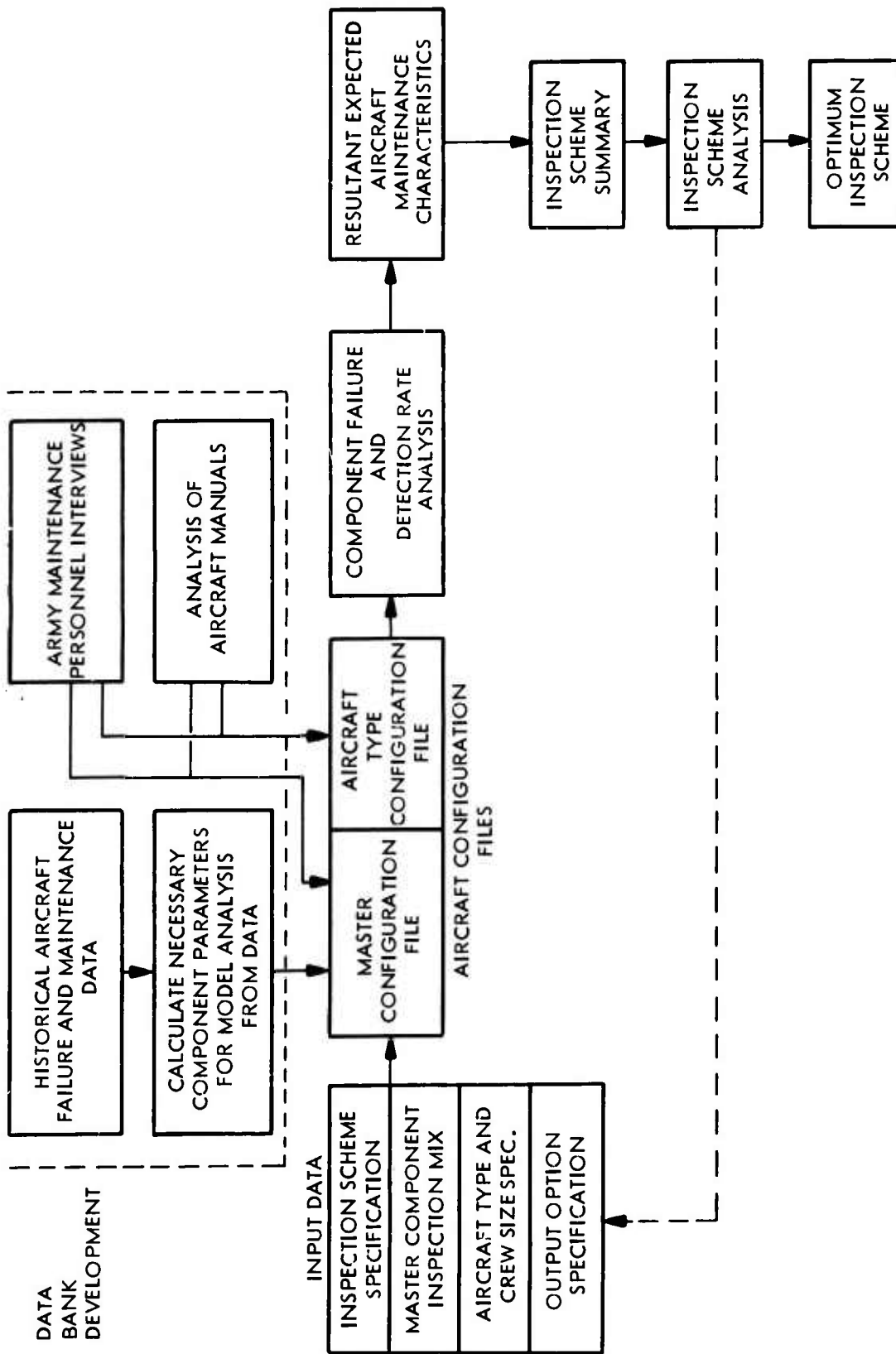


Figure 2. Inspection Analysis Model Schematic.

BASIC OUTPUT CALCULATIONS	HELICOPTER TYPES				
	LOH	AH	UH	CH-MEDIUM	CH-HEAVY
FLIGHT RELIABILITY					
MISSION RELIABILITY					
AVAILABILITY					
NORM-SCHEDULED					
NORM-UNSCHEDULED					
MH/FH - FLT READINESS INSP					
MH/FH - SCHEDULED - LOOK					
MH/FH - SCHEDULED - FIX					
MH/FH - UNSCHEDULED MAINTENANCE					
MH/FH - TOTAL					
UNSCHEDULED MTBM					

Figure 3. Inspection Scheme Summary Matrix.

Aircraft Configuration Files

The model can process computer configurations for all of the basic types of helicopters and also is easily expandable to additional types if this should be desired in the future. This is accomplished by the data bank structure incorporated into the model. This consists of two types of aircraft configuration files: the master configuration file and the aircraft type configuration file.

The master configuration file contains a data record for each generic type of helicopter component which requires scheduled inspection based on the composite analysis of all five types of helicopters (LOH, UH, AH, CH-Medium, and CH-Heavy). In most cases, study input data indicated that all components of a certain type have similar basic failure behavior. Where there was a marked difference, multiple entries for those components were made in the file. Thus, failure data from all helicopter types has been used to generate the typical component failure data records for each generic type of component within the master configuration file.

The aircraft type configuration files consist of one file for each type of helicopter to be evaluated. Each file contains the helicopter type and a list of those components in the master configuration file which are included on that type of helicopter. To evaluate an inspection scheme for a certain type of aircraft, the model combines the corresponding inspection input data and master configuration file records with all components and quantities listed in the appropriate aircraft configuration file, performs the necessary calculations, and prints out the desired output data.

Program Input Data

The input data for the program consists of four groups, as shown in the schematic of Figure 2. The first two groups completely describe the inspection scheme being evaluated. The inspection scheme specification includes the identifying inspection scheme number, the flight-hour interval between scheduled inspections, the total flight-hours in an inspection cycle, and the types of flight readiness and scheduled inspections to be applied. The term "flight readiness" refers to preflight, postflight, or daily inspection or combinations of these inspection types.

The master component inspection mix lists all components to be inspected and whether or not each component is to be inspected at preflight, postflight, or daily inspections. It also includes the number of the scheduled intervals at which the component is to be inspected. This sets the scheduling concept to be used for each component inspected within the inspection scheme. With this program structure, several different schemes or time intervals can be evaluated by changing only the inspection scheme specification input card.

The last two groups of input data include the aircraft type and crew size specifications and the output option specification. The first of these specifies the aircraft types to be evaluated by the model and the inspection crew sizes to be applied at each inspection within an inspection cycle. The inspection crew size includes only those maintenance personnel actually employed in inspecting the aircraft. The output option specification allows the user to specify the outputs of interest in the model run being made.

Model Calculations

Figure 4 shows the mathematical calculation flow contained within the model. Data transfers from aircraft data files and from inspection concept specification inputs are indicated. The terms λ , T_{OS} , and failure analysis model used in the figure are defined and discussed under the subheading which follows (Model Failure Theory). A complete description of the mathematical formulations utilized in the model is provided in Appendix I.

Model calculation flow results in computation of four major outputs: availability, total maintenance man-hours per flight-hour, flight reliability, and mission reliability. These major parameters are calculated as follows:

Availability

Availability as used in this study has been calculated based on a desire for the aircraft to be available 24 hours/day and 7 days/week. There is one exception to this basic assumption. It is assumed that the flight-readiness inspections (preflight, postflight, or daily inspections) can be accomplished around the required operational use of the aircraft, and thus the elapsed time required for flight-readiness inspections has not been included in downtime and availability calculations within the model.

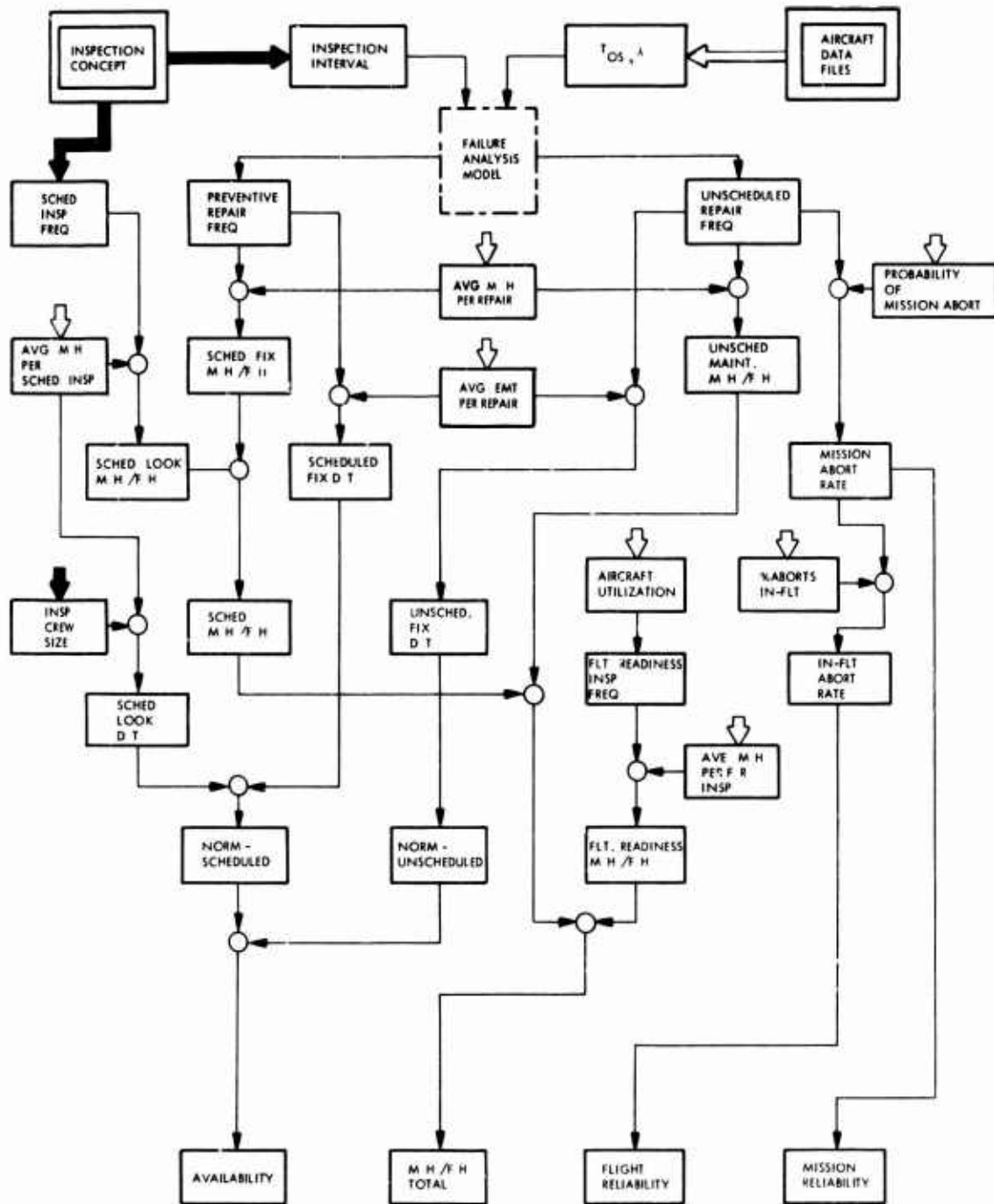
$$\begin{aligned}\text{Availability} &= 1 - \frac{\text{Downtime Hr}/1000 \text{ Flt-Hr}}{\text{Calendar Time Hr}/1000 \text{ Flt-Hr}} \\ &= 1 - \frac{\text{Downtime Hrs}}{\text{Calendar Time Hrs}}\end{aligned}$$

where calendar time per 1000 hours is based on the average utilization of the appropriate aircraft type.

It should be noted that the availability calculated will be higher than that normally expected since no downtime due to awaiting maintenance or supply time is included. Only downtime due to inspection and repair actions is included in the calculation.

Total Man-Hours Per Flight-Hour

Total man-hours per flight-hour as calculated within the model is the summation of all maintenance man-hours required



↓ = DATA TRANSFER FROM AIRCRAFT DATA FILES
 ↓ = DATA TRANSFER FROM INSPECTION CONCEPT SPECIFICATION DATA

DT - DOWNTIME
 EMT - ELAPSED MAINTENANCE TIME
 FH - FLIGHT HOUR
 FLT - FLIGHT
 FR - FLIGHT - READINESS
 FREQ - FREQUENCY
 INSP - INSPECTION
 MH - MAIN - HOURS
 SCHED - SCHEDULED

Figure 4. Model Calculation Flow.

for all inspections and for all scheduled and unscheduled repair (fix) actions.

Note that this man-hour calculation does not include time required for the day-to-day upkeep of the aircraft. Such items as man-hours required for washing, cleaning, mooring, ground handling, fueling, etc., are not included. "Total" man-hours calculated in the study then are lower than those that should be expected operationally. Study evaluation in this area is based upon comparative manpower required for inspection and repair between the various inspection concepts and not calculation of absolute operational manpower requirements.

Flight and Mission Reliability

Flight and mission reliability calculations are based upon failure history data for the percentages of failures causing in-flight and mission aborts. Mission abort probability includes failure causing both preflight and in-flight aborts. Preflight aborts are defined as those aborts caused by discovery of the requirement for maintenance by the air crew before takeoff and after ground maintenance personnel have completed their inspection. Flight and mission reliability are calculated using the following formulas:

$$\text{Flt Reliability} = 1 - \frac{\text{Total In-Flt Aborts}/10,000 \text{ Flt-Hr}}{\text{Total Number of Flts per } 10,000 \text{ Flt-Hr}}$$

$$\text{Mission Reliability} = 1 - \frac{\text{Total Mission Aborts}/10,000 \text{ Flt-Hr}}{\text{Total Number of Flts per } 10,000 \text{ Flt-Hr}}$$

The total number of flights per 10,000 flight-hours is dependent upon the mission profile for each aircraft type.

Model Failure Theory

In order to realistically calculate the effects of variations in inspection interval on the operational parameters of an aircraft, it is necessary to model the relationship between component inspection interval and failure behavior. Two general failure categories exist. Either a component wears out, with the probability of failure increasing with increasing hours of operation, or random failures occur during the useful life of a component.

A single component can fit into both of these categories. Figure 5 shows a typical failure rate versus operating time curve for such a component.

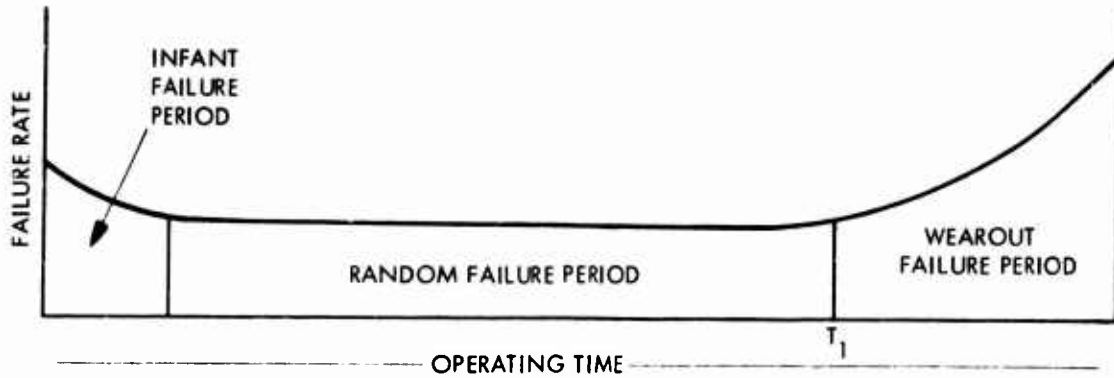


Figure 5. Failure Rate Versus Operating Time.

As operating time is increased, after an initial infant failure period, failures of the random type are to be expected. Then as the expected end of component life is approached, a component wearout failure period is entered. Shifting the time when inspection is scheduled, T_1 , creates an expected component failure behavior characteristic fitting only one of the general failure categories mentioned. Thus this type of representation can then be used to fit a wide range of component failure behavior.

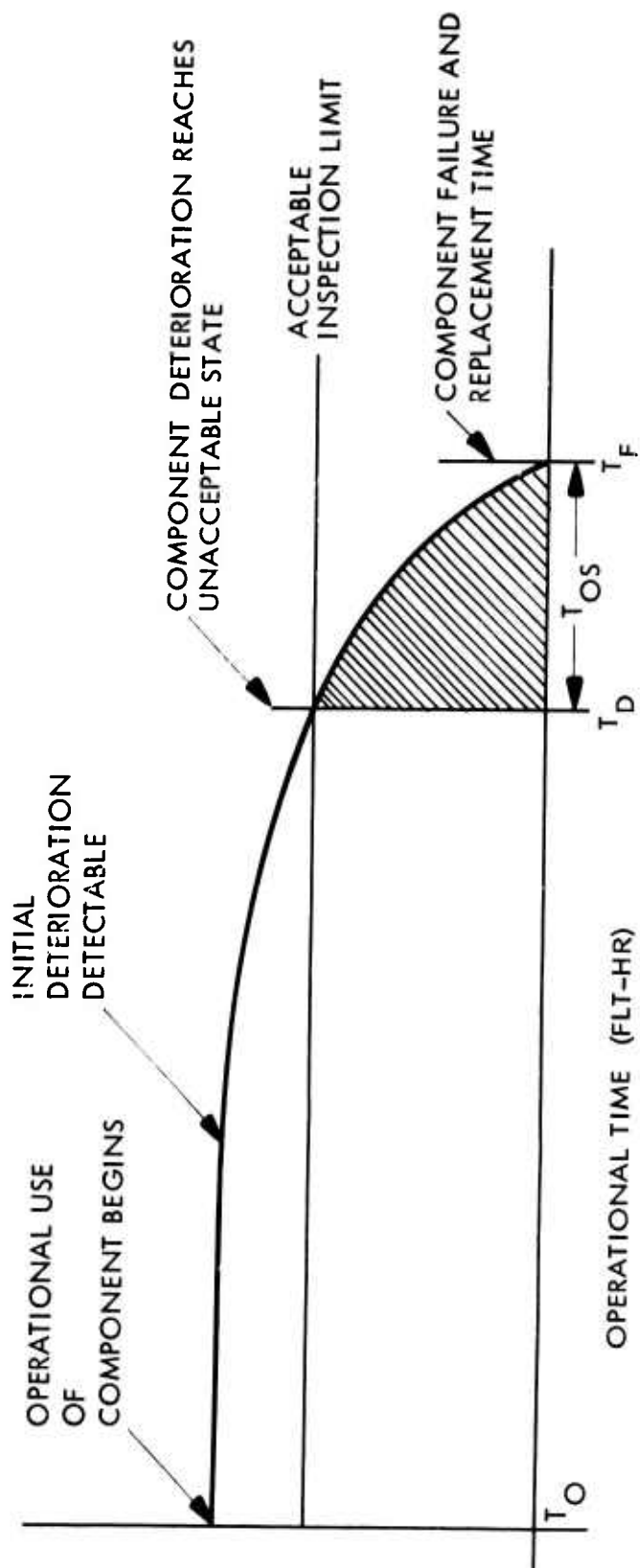
Using present inspection techniques, these component failures may occur without any detectable warning signs or progressively such that the onset of failure is detectable prior to its occurrence. Scheduled inspections should place major concern on components of this latter type since it is only these components whose failure behavior is affected by inspections.

Field data available for this study was sufficient to allow for the development of model and data bank considering both the random and wearout failure properties of components. Data necessary for analysis of the infant failure period was not available; therefore, no distinction between these and random failures was made. The model takes into account whether or not present inspection methods typically detect any impending component failures. The five basic assumptions used in the model are as follows:

1. Start of failure is random. All components are assumed to have a random rate of entering a detectably deteriorated state, λ .
2. Given that a component has entered the deteriorated state, there is an average time interval, T_{os} , between the time when the component is first detectably unacceptable and the time at which failure occurs (for sudden or undetectable failures, $T_{os} = 0$).
3. If a component is found in a detectably deteriorated state during a scheduled inspection (flight-readiness inspections not included), a preventive repair will be made at that time.
4. A component is assumed not to be deteriorated at the time of installation.
5. If a component failure occurs between inspections, the component will be replaced at that time.

The key to understanding the failure behavior model is the T_{os} concept. T_{os} has been defined as the average time interval between the time when the component is first detectably unacceptable and the time at which failure occurs. Figure 6 illustrates the relationship of T_{os} to an average detectable failure characteristic for a sample component. Any single component of this type may suffer from either a more abrupt failure or a longer deterioration interval than is represented in this figure, meaning that for a given component there is actually a deterioration interval distribution around the average value of T_{os} . The model was developed for use in studying the general relationship of different inspection concepts to the operational parameters of all Army helicopter types. Results were derived through use of data for a listing of generic components present in many or all of the five typical helicopter types under evaluation. Generic component data used was, in most cases, a composite of historical data for the many types. In this situation, incorporating T_{os} distributions would have had little effect when comparing model outputs for the different candidate inspection schemes. Thus, the T_{os} average values used were considered sufficient for the required model calculations.

T_{os} , as used in this study, reflects the ability of present inspection techniques to detect failure onset since the data base



T_O = TIME OF INITIAL OPERATIONAL USE

T_D = TIME COMPONENT DETERIORATION ENTERS UNACCEPTABLE STATE

T_P = TIME OF COMPONENT REPLACEMENT DUE TO FAILURE

Figure 6. Component Deterioration and T_{OS} .

from which it is derived (see Appendix I) is recent maintenance records. Calculation of T_{OS} from data is dependent upon breaking the historical failures up into "when found" classifications. T_{OS} for a component is directly related to the percentage of past failures found during scheduled inspections and the corresponding time interval between inspections. If present inspection techniques in general are unable to detect the deterioration of a component, the resultant impending failures found and replaced during scheduled inspections will be near zero, implying that $T_{OS} = 0$. If, however, present inspection techniques have consistently found most impending failures during scheduled inspections, a longer T_{OS} of the same order of magnitude as the time interval between inspections is implied. Thus, T_{OS} reflects not only the deterioration characteristics of a component but also the effectiveness of present inspection techniques.

The effect of component replacements leads to a random failure distribution across time. The probability of a component entering the detectably unacceptable state by a certain time can be calculated using the basic exponential equations associated with random failures modified to take into account the effects of replacement and T_{OS} (see Appendix I). If a component enters the detectably unacceptable state at a time less than its T_{OS} before the next scheduled inspection, it will result in an impending failure being detected at that time. Thus, by calculating the probability of a component entering the detectably unacceptable state within the time T_{OS} before an inspection, the probability of an impending failure being found during an inspection has been calculated. The same basic equations have been used to calculate the probability of a component failure occurring between inspections (see Appendix I). Figure 7 illustrates the relationship of T_{OS} to scheduled inspection intervals with three examples. The first example, Component X, has been characterized by a T_{OS} much smaller than the scheduled inspection interval, which results in a small percentage of component replacements occurring at inspection intervals. The second example, Component Y, illustrates the opposite extreme for a T_{OS} greater than the inspection interval, which results in most replacements occurring at scheduled inspection intervals. The third example, Component Z, indicates the result for an intermediate value of T_{OS} . A detailed description of the mathematical modeling of component failure behavior and the calculation of the required model parameters is included in Appendix I.

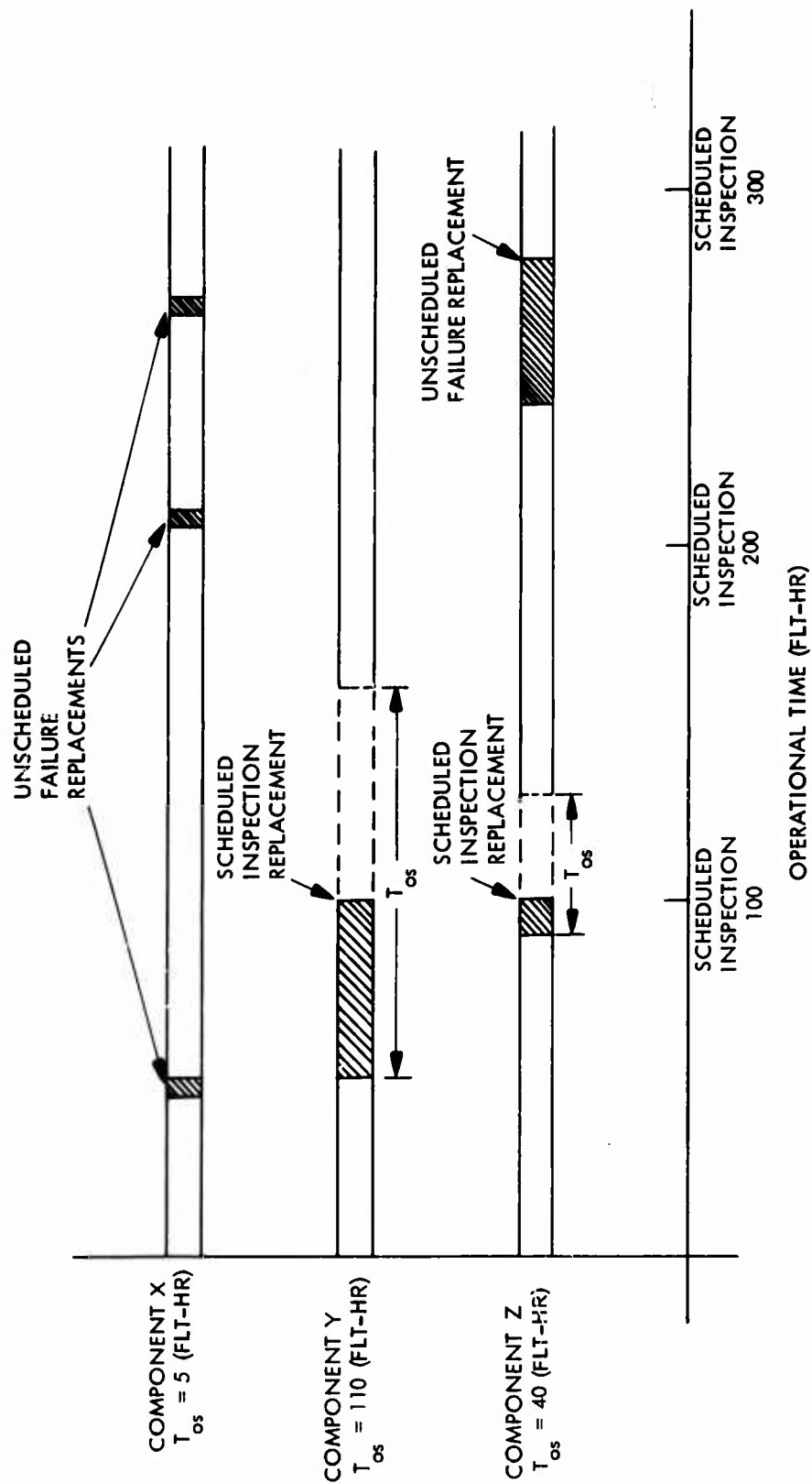


Figure 7. Variation in T_{0s} Versus Inspection Interval.

DATA BASE AND DATA DEVELOPMENT

In the description of the inspection analysis model earlier, it was explained how the model operates on two basic data files: the master configuration file and aircraft type configuration file. The manner in which data was collected, processed, and analyzed to develop these files is described next. Appendix II lists documentation used in the study.

Aircraft Type Configuration File

The aircraft type configuration file is one of the two aircraft data files used in the modeling. This file structures each of the five helicopter types in terms of the systems, components, and component quantities present in each aircraft. Subsystems and components listed within the file correspond via code to components in the master configuration file. During model operations, the aircraft type configuration file is used as an index to select data from the master file for the roster of components defined for each aircraft type.

Aircraft type files used in the study were developed through engineering analyses and a field survey in which Army technicians intimately familiar with the various helicopters assisted directly in defining each configuration. All of the technicians interviewed were career military personnel, and each had had long experience with his respective aircraft type. Appendix III contains the aircraft type configuration file.

Master Configuration File Derivation

The master configuration file (Appendix IV) is the data bank upon which the inspection analysis model operates. It enables the model to structure any one of the five helicopter configurations from a single set of generic component types and supplies the input data for the model exercises. The file is essentially a master index of helicopter components grouped by major systems and subsystems. The types of components included in the file are those which have significance in terms of evaluating the impact of alternative inspection schemes on various helicopter subsystems.

Source data for use in creation of the master configuration file was derived from the Army's RAMMIT system and from the Navy's 3-M data system. RAMMIT reports were supplied in printed form and consisted of maintenance life histories, RIADS and MIRFs.

The 3-M data, covering Navy and Marine Corps helicopters comparable to the five Army models being studied, was supplied on magnetic tape and consisted of the original flight, readiness, and maintenance source records (card images).

The 3-M data was used primarily in creation of the master configuration file because, being on magnetic tape, it could be processed and put in a format which facilitated extraction and mathematical treatment. RAMMIT reports were used as backup for the 3-M, especially in areas where the 3-M data either was not suitable for a given application or was inconclusive.

Navy 3-M System Data

The Navy's Maintenance Support Office at Mechanicsburg, Pennsylvania, supplied eight reels of magnetic tape containing maintenance, flight, and readiness activity for the H-1, H-46, H-53 and H-57 series helicopters. The data covered a two-year period ending June 1971 and included the following 3-M record types:

Type 11	Maintenance Transaction
Type 21	Maintenance Transaction
Type 31	Maintenance Transaction
Type 71	Readiness Transaction
Type 76	Flight Transaction

In order to provide a data base which approximated the Army's operating environment as nearly as possible, Marine Corps equivalents to the Army helicopters being studied were selected for processing. A Marine Corps counterpart was available for four of the five types. For the OH-58, data derived from the Navy's TH57A helicopter was substituted. Table II shows the selected data base by record type and model.

3-M Data Processing

A computer program was developed to extract, format and process the data. Figure 8 shows the overall 3-M data processing flow. The initial operation involved creation of separate tape files for each of the four basic helicopter types:

1. UH-1E, AH-1G, AH-1J
2. CH-46D
3. CH-53D
4. TH-57A

Table I. Data Base* - Record Types By Model

Model	Type 11	Type 21	Type 31	Type 71	Type 76
UH-1E	50,373	15,602	16,595	41,520	33,894
CH-46D	84,528	40,017	39,392	50,338	45,706
AH-1G	15,457	5,437	4,384	10,879	10,580
AH-1J	1,958	360	250	2,174	1,255
CH-53D	31,722	9,830	9,614	24,896	12,366
TH-57A	16,909	742	56	9,780	22,703

*Because the files supplied by the Navy lacked data for the last quarter of fiscal year 1971, only fiscal year 1972 data was ultimately included in the final reports.

Simultaneously, the input records were reformatted to condense the files and to speed sorting and processing efficiency. Figure 9 shows the format of the 80-character, 3-M records as received in the original tape files. Figure 10 shows the revised 45-character format produced as a result of the initial file extract runs. The program permits the creation of from one to five output files from any number of the eight input files. Any combination of helicopter model types can be placed on each output file for a defined input time period.

Each model type file was sorted on record positions 5 through 15, yielding a file sequence as follows:

1. Flight records (Type 76) by aircraft serial number
2. Maintenance and readiness records (Types 11, 21, 31 and 71) by work unit code (maintenance records in malfunction code sequence).

The sorted file was then fed to a tape-to-print run which produced reports from which data was derived for the master configuration file. The printed output was produced in three sections:

1. Flight data by aircraft serial number
2. R&M statistical summary
3. Record count by organization

MAINTENANCE ACTION - TYPE 11, 21, 31

ORG	DATE	SEQ. NO.	SUFF	TYPE	BU/SER	NUMBER	ACTION	WC	LEVEL	ACTION	DATE	WORK	UNIT	CODE	DISC.	T.M.	ACTION	MAL.	DESC.	ITEMS	MAN	HOURS	EMT	RIC./	MEGR	PART	NUMBER	DP CODE	AWAY	CARD	CODE
		11				15			21		2728				39404142					45	47	51	54	59					74	77	80

AIRCRAFT STATISTICAL DATA - TYPE 71, 76

BU/SER	NUMBER	TYPE	EQUIP.	ORG.	PERM	UNIT	CODE	TRANS	DATE	WORK	UNIT	CODE	ORG	DATE	SEQ.	AWM OR	FPC	TRANS	TIME	END	TIME	BEGIN	NOR FLTS.	TIME	TOTAL	CODE	TOTAL	CODE	TOTAL	CODE	TOTAL	CODE	TOTAL	CODE	TOTAL	DP CODE	AWAY	CARD	CODE
	6		10	13		19		23		28				JCN	38	4142		46	5051	54																			

Figure 9. Navy 3-M Record Formats .

FLIGHT RECORD (TYPE 76)																		
TYPE EQUIP. CODE	1	AIRCRAFT SERIAL NUMBER	TRANS CODE	LANDINGS								HOURS	ORG CODE	DATE	RECORD CODE			
				CODE	TOTAL	CODE	TOTAL	CODE	TOTAL	CODE	TOTAL					CODE	TOTAL	
4	5	11	17	18	20	21	23	24	26	27	29	30	32	33	36	39	43	45

MAINTENANCE RECORD (TYPE 11, 21, 31)													
TYPE EQUIP. CODE	2	WORK UNIT CODE	MALFUNCTION CODE	LEVEL	DISC CODE	TM CODE	ACTION CODE	ITEMS PROCESSED	ELAPSED MAINTENANCE TIME	MAN-HOURS	ORG CODE	DATE	RECORD CODE
4	5	12	15	17	18	19	20	29	32	36	39	43	45

NOR RECORD (TYPE 71)										
TYPE EQUIP. CODE	2	WORK UNIT CODE		TRANS CODE		AWM HOURS	NOR HOURS	ORG CODE	DATE	RECORD CODE
4	5	10		17		32	36	37	43	45

Figure 10. Reformatted 3-M Records.

Another program option provided a tabulation of flight-hours by aircraft serial number and month as required to estimate the average monthly flight utilization for the various models. Concurrently with printing of the R&M statistical summary, an output tape was generated for input to a FORTRAN program which calculated the deterioration start rate (adjusted failure rate), T_{OS} hours, and flight abort probabilities for each work unit code having reported failures during the period.

R&M Statistical Summary

The R&M statistical summary, a sample page from which is shown in Figure 11, provided the historical data from which the master configuration file was derived. In developing the format for this report, major attention was given to facilitating the data reduction task, i.e., the merging/averaging of data from several model reports for input to the master configuration file.

The report is in work unit code sequence. Because code-to-nomenclature files were not provided with the data supplied by the Navy, the report does not include the item nomenclature, although space for it was reserved. There is a two-line print-out of data for each work unit code reported. Total lines are supplied at the component level (for items with a 6th and 7th digit WUC breakout) and at the subsystem, system, and all-systems levels. An explanation of the data elements follows:

MTBF - The mean-time-between-failures for the work unit code. This value is computed by dividing total flight-hours for the model by the number of failures reported (scheduled actions, no-defect actions, cannibalization, etc., having been screened out).

MTBR - The mean-time-between-replacements (for failure) for the work unit code, obtained by dividing flight-hours by the number of reported replacements due to failure.

FAIL RATE - The rate of failure per 10,000 flight-hours.

REPL RATE - The rate of replacements for failure per 10,000 flight-hours.

ORG MTBM - The mean-time-between-maintenance at the organizational level, obtained by dividing flight-hours by the total number of maintenance actions reported at Level 1.

INT MTBM - The mean-time-between-maintenance at the intermediate level, obtained by dividing flight-hours by the total number of maintenance actions at Level 2.

ORG MTTR - The mean-time-to-repair at the organizational maintenance level, obtained by dividing the total reported elapsed maintenance time at Level 1 by the number of actions reported.

INT MTTR - The mean-time-to-repair at the intermediate maintenance level, obtained by dividing the total reported elapsed maintenance time at Level 2 by the number of actions reported.

ORG MH/MA - The average man-hours per maintenance action at the organizational level, obtained by dividing the total reported man-hours at Level 1 by the number of maintenance actions reported.

INT MH/MA - The average man-hours per maintenance action at the intermediate level, obtained by dividing the total reported man-hours at Level 2 by the number of maintenance actions reported.

ORG MH/FH - The maintenance man-hours per 10,000 flight-hours at the intermediate level, obtained by dividing Level 2 man-hours $\times 10^4$ by flight-hours.

NORM RATE - The number of hours per 10,000 flight-hours that the work unit code caused the aircraft not to be operationally ready for maintenance.

NORS RATE - The number of hours per 10,000 flight-hours that the work unit code caused the aircraft not to be operationally ready for supply.

Four-High Failure Modes - The 3-M malfunction codes for the four-high failure modes reported and their percentage of contribution to total failures (in descending order).

When Discovered Distribution - The percentage of distribution of failures by "when discovered" within eight groups:

- Group 1 - Preflight (Abort)
- Group 2 - Inflight (Abort)
- Group 3 - Before Flight/Preflight Inspection

- Group 4 - Between Flights/Postflight or Daily Inspection
- Group 5 - Inflight (No Abort)/Test Flight
- Group 6 - Calendar Inspection
- Group 7 - Other Inspection
- Group 8 - All other

PRCNT ERROR CAUSE - The percentage of total failures caused by maintenance or operator error.

PRCNT ENVMT CAUSE - The percentage of total failures caused by weather or environmental factors.

Although some of the data elements included in the R&M summary did not have direct application to the master configuration file, they were helpful in areas where engineering judgement was needed to interpret or apply the data. At the conclusion of the R&M summary, a tabulation of record types generated by each activity reporting on that model aircraft was printed. This information was of value in appraising the operating environments in which the historical data was compiled.

T_{OS} and Abort Data Tape

Keying a program option provided for generating a T_{OS} and abort data tape concurrently with printing of the R&M statistical summary. This tape was fed into a FORTRAN program for analysis and creation of a record for each work unit code with a tabulated failure history. Each input record contained the aircraft model code, work unit code, MTBF, and failure distribution by "when discovered" category. Each output record contained the adjusted determination start rate, calculated T_{OS}, and mission abort probabilities. A discussion of this analysis is contained in Appendix I. Equations for T_{OS} and abort rate calculations are defined in Appendix I.

MCF Data Reduction

R&M statistical summaries, together with T_{OS} and abort probability calculations, were produced for the UH-1E, AH-1G/J, CH-46D, CH-53D and TH-57A helicopters.

At the outset of the data reduction task, cross-reference lists were prepared to identify the specific work unit codes to be used as source data for each generic component entry in the master configuration file. Where data for a particular work

unit code was found to vary little from one aircraft model to another, data was drawn from one helicopter model. Since the MCF generic component types represent, in many cases, a general class or group of similar components, it was often necessary to combine data from multiple work unit codes. In cases where data from one aircraft model to another varied appreciably, work unit code sources from two or more helicopter models were used (again involving multiple work unit codes from each for some items). Data from several models was merged and averaged on a weighting basis, using relative failure rates and component quantities. In a few instances, the statistical characteristics of components between aircraft varied too greatly to permit merging of the data. When this situation was encountered, another MCF entry was made to differentiate between the basically unlike components. This is most evident in systems where components labeled "Heavy Helo" are introduced to separate them from the same items on lighter model aircraft.

MCF File Structure

The master configuration file, loaded on magnetic disc for accessing by the computer model, is organized in component code sequence. The file contains 17 major systems, 95 subsystems, and 491 component level entries. Each record in the file is 126 characters long and contains the following elements of data:

Master Configuration File Record Format

	<u>Record Position</u>
Component Code	1-6
Filler	7
Component Nomenclature	8-37
Type Component Code	38
Deterioration Start Rate (per 100,000 flight-hours)	39-42
Failure Mode No. 1	43-45
Mode 1 Percent of Total	46-48
Mode 1 Flight-Readiness Detection (Y/N)*	49
Mode 1 Scheduled Inspection Detection (Y/N)*	50
Failure Mode No. 2	51-53
Mode 2 Percent of Total	54-56
Mode 2 Flight-Readiness Detection (Y/N)*	57
Mode 2 Scheduled Inspection Detection (Y/N)*	58
Failure Mode No. 3	59-61

*Not currently used.

	<u>Record Position</u>
Mode 3 Percent of Total	62-64
Mode 3 Flight-Readiness Detection (Y/N)*	65
Mode 3 Scheduled Inspection Detection (Y/N)*	66
Tos Hours	67-69
Abort Probability Without F.R. Inspection	70-72
Abort Probability With F.R. Inspection	73-75
Percent Aborts In-Flight	76-78
Flight-Readiness Inspection Candidate (Y/N)*	79
Flight-Readiness Inspection Method 1	80-81
Flight-Readiness Inspection Method 2	82-83
Flight-Readiness Inspection Time	84-87
Scheduled Inspection Method 1	88-89
Scheduled Inspection Method 2	90-91
Scheduled Inspection Method 3	92-93
Scheduled Inspection Method 4	94-95
Scheduled Inspection Method 5	96-97
Scheduled Inspection Method 6	98-99
Scheduled Inspection Method 7	100-101
Scheduled Inspection Time	102-105
Average Elapsed Repair Time	106-108
Average Repair Man-Hours	109-111
Flight-Readiness Inspection MOS	112-116
Scheduled Inspection MOS	117-121
Repair MOS	122-126

A sample printout from the MCF disc loading program is shown in Figure 12. The system/component breakdown is the same as that shown for the aircraft configuration files. The complete master configuration file is presented in Appendix IV. Appendix V, lists the codes utilized in the master configuration file printouts.

Mission Profiles

A knowledge of the mission profiles of the five helicopter types was required to supply certain elements of input data to the model (utilization and flight duration) and also to aid occasionally in the interpretation and extrapolation of data. Operating and use factors describing the basic missions flown by each helicopter type are shown in Table II.

*Not currently used.

A comparison of the differences in operation of one helicopter type to another is frequently helpful in this respect. Consider, for example, the problem of extrapolating abort data on communications systems from one helicopter type to another. Knowing differences in average mission length is an important factor. A pilot would more likely abort a long mission in the event of radio failure than he would a short mission. Or consider the extrapolation of landing gear failure rate data from one helicopter to another. Here the average number of landings per flight-hour may create the need for adjustments.

The mission profile data was used throughout the study in considerations such as these.

DEVELOPMENT OF THE INSPECTION CONCEPT

Structuring Inspection Schemes

Any inspection system for aircraft must include both the flight-readiness and scheduled types of inspections, since each satisfies unique and important requirements. Flight-readiness checks are required to verify the integrity of aircraft for safe flight. Scheduled inspection are comprehensive examinations for general aircraft condition necessary to preclude deterioration of subsystems beyond safe limits and also to minimize disruption of aircraft operations for emergency repairs.

Structuring Flight-Readiness Inspections

The possibilities for innovation in this area were quite limited since the basic alternatives available included only the pre-flight, postflight or daily type of inspection (or some combination thereof). The only real flexibility in design of flight-readiness inspections was in the composition of the inspection, i.e., the mix of components designated for each inspection.

Flight-readiness checks were confined generally to examination of those items which are critical to flight safety and/or mission accomplishment and which have more than a negligible probability of failure in flight. Failure mode was an important determinant in the selection of the flight-readiness checklist

TABLE II. BASIC MISSION PROFILES

Basic Mission	AH-1	UH-1	CH-47	CH-54	OH-58
	Armed Escort	Personnel Carrier	Transport Troops/Cargo	Transport Outsized Load	Unarmed Observation
Takeoff Weight (% Gross)	91	77	77	90	92
Mission Radius (N MI)	167	149	100	124	147
No. Landings per Mission	1	2	2	2	1
Total Mission Time (hr)	2.4	2.9	1.4	2.6	3.0
% Ground Runup	1	2	5	3	1
% Taxi	0	0	5	3	0
% Hover	2	3	7	3	1
% Climb/Decend	57	12	10	4	8
% Forward Flight	40	83	73	87	90
Average Flt -Hr Per Month (Combat Environment)	70	80	60	50	70

as well. An item may, for example, have a significant probability of failing in a mode which does not endanger safe operation and a negligible probability of failure in a critical mode. Insofar as mission accomplishment is concerned, the potential mission degradation caused by the occurrence of failure was the important consideration in designing flight-readiness checks.

Having decided upon the type(s) of flight-readiness inspections to include in a given inspection concept, it was necessary to specify the composition of each inspection. Guidelines for deciding whether to include an item in a flight-readiness inspection were as follows:

1. Does the component have more than a negligible probability of failure during flight?
2. Will failure of the component in any significantly occurring failure mode substantially degrade mission performance or cause an abort?
3. Will failure of the component in any significantly occurring failure mode threaten flight safety?
4. Is the failure characteristic such that evidence of deterioration precedes actual failure?
5. Can deterioration or the onset of failure be detected with inspection techniques available to organizational level maintenance?
6. Is there access to the component for inspection without removal of major structural panels and without disturbing other components?
7. Can the inspection task be completed in a reasonably short period of time?
8. Can the inspection be performed by organizational level personnel?
9. Is the component located in proximity to other components which will definitely be subject to inspection anyway?
10. Is it unlikely that inspection will damage the component or make it more vulnerable to failure in future use?

11. Is it unlikely that the ground or flight crew would detect deterioration or failure of the component in the normal course of their duties even if no inspection were performed?

Answering the majority of these questions in the affirmative, especially the first three, indicated that the item was a candidate for flight-readiness inspection. Conversely, a negative response to most questions suggested that the component be excluded from the flight-readiness category. Once a decision had been made to schedule an item for inspection at the flight-readiness level, it was necessary to determine which inspection point (if more than one were included in the concept) was the most appropriate. The following guidelines were used as an aid in this decision.

1. Is evidence of deterioration or failure greatest immediately prior to or after a flight, i.e., use of the component?
2. Is the component likely to be damaged through ground handling or other routine maintenance operations in periods between flight activity, e.g., overnight?
3. Is it acceptable to conduct more than one flight between inspections of the component?
4. Are access and inspection time within reasonable limits for the inspection being considered?
5. Will crew confidence be enhanced by performing the check at this inspection versus another?

Answering these questions helped to decide the most desirable point for a flight-readiness inspection.

Structuring Scheduled Inspections

Regardless of the titles applied to the various inspections comprising the system, it was recognized that all scheduled inspections essentially are described by three parameters: (1) the inspection cycle, (2) the number of inspections within the cycle, and (3) the mix of components slated for each inspection interval. Thus an intermediate, periodic inspection concept can be defined as:

Cycle	100 Hours
Inspections Within Cycle	4 (25-Hour Intervals)
Component Mix	(X at 1,2,3) (X + Y at 4)

and a phased inspection scheme might be defined as:

Cycle	300 Hours
Inspections Within Cycle	6 (at 50-Hour Intervals)
Component Mix	(X at 1,3,5) (X + Y at 2,4) (X + Y + Z at 6)

A calendar inspection system was accommodated by this concept as well by equating the calendar cycle to a flight-hour cycle on the basis of average aircraft utilization. The criteria used to develop component mixes for the various scheduled inspection concepts tested will be described later.

Candidate Inspection Concept Development

Seven basic inspection concepts were specified for evaluation by the Government. These were:

1. The daily, intermediate, periodic concept
2. The daily, periodic concept
3. The tailored inspection maintenance system
4. The phased periodic inspection system
5. The postflight, daily, periodic system
6. The calendar concept
7. The flying-hour, calendar concept.

Although this listing seemed to cover a broad range of options, a comparative analysis of these seven inspection systems revealed inherent similarities. Differences, in some cases, related more to the terminology used to describe the system than to real variations in content. As discussed earlier, each of the systems was definable in terms of inspection cycle, interval, and mix for analysis by the analytical model. In addition to the seven concepts prescribed for the study, a large number of variations were modeled to cover the range of practical alternatives.

Development of Component Inspection Mixes

Seven component inspection mixes were used to test the various scheduled inspection schemes which were evaluated. Some of these were subject to one or more revisions as a result of

analyzing the model outputs. In addition, standard mixes were developed for the preflight, postflight and daily inspections and were used without variation in all inspection schemes to which they applied.

Each mix schedules the components in the master configuration file for one or more of the inspection points in the inspection scheme to which the mix will be applied. Rules used to slot components into scheduled inspection intervals under basic inspection concepts were as follows:

Simple Periodic Scheme

1. All components inspected at each periodic inspection point.

Short-Interval Intermediate/Periodic Scheme

1. All components inspected at the periodic point.
2. Generally, components with T_{OS} between 10 and 60 hours and failure rates greater than $75/10^5$ hours were selected for inspection at the intermediate point.

Longer Interval Intermediate/Periodic Scheme

1. All components inspected at the periodic point.
2. Generally, components with T_{OS} between 10 and 150 hours and failure rates greater than $150/10^5$ hours were selected for inspection at the intermediate point.

Phased Inspection Scheme

1. Components with near zero T_{OS} and comparatively low failure rates were designated for the longest interval inspection.
2. Remaining components were divided into three groups based on failure rates. The group with the highest failure rate was designated for shortest interval inspection, the second group for the next longest, etc.
3. All groups except the one having the shortest interval were further subdivided and phased to make manpower requirements fairly uniform at each inspection point.

4. When subdividing in order to phase groups of components, an effort was made to keep components within the same system together.

Criteria used in developing the flight-readiness component inspection mixes were:

Preflight Inspection - Components scheduled for the preflight inspection are those which:

1. Are critical to aircraft flight safety and/or
2. Are subject to damage between flights and
3. Whose deterioration or failure could be better discerned before rather than after a flight.

Postflight Inspection - Components scheduled for the postflight inspection are those which:

1. Are critical to flight safety and/or
2. Are potentially subject to substantial wear or deterioration during a flight and
3. Whose failure or deterioration could be better discerned immediately after rather than just prior to a flight (as in the case where loss of consumables is an important indicator).

Daily Inspection - Components scheduled for the daily inspection are those which:

1. Met the criteria for the preflight or postflight inspection or
2. Offered a good chance of reducing mission abort occurrences (based on an analysis of failure rate and abort probabilities).

The scheduled inspection and flight-readiness inspection mixes are presented in Appendixes VI and VII. Coding shown in Appendix VI indicates the intervals at which scheduled inspection will occur. For example, code 01 02 denotes a component that will be inspected at every interval (1st, 2nd, 3rd, ...) of any scheme using the mix. Code 04 08 indicates inspection at every fourth

interval. Code 01 07 indicates inspection at the 1st, 7th, 13th, ... interval, etc.

Inspection Concepts Considered

Table III is an index of the concepts developed and evaluated in the study. The columns at left indicate the scheme number used and the type of inspection concept. The interval and cycle columns indicate time in hours in all cases except calendar inspection, where times are listed in terms of days. Numbers in the mix column refer to component mixes by identifying number. The methodology used to develop component mixes was described in the previous paragraph. Appendix VI contains the seven mixes developed during the study. A matrix presentation of the selected mix is found in Appendix IX. The "Crew Requirements" columns list the number of personnel assigned for the inspection. For intermediate/periodic inspections two numbers are shown. The first number indicates men assigned to the intermediate inspection and the second, those assigned to the periodic inspection.

Model Application

Table III provides an index of all schemes run through the computer after completion of model validation. Application of the model followed an iterative process of scheme development, computer run, and results analysis until enough schemes were evaluated to allow a substantive recommendation of the most effective system.

Model runs during the validation period indicated negligible impact upon the results from variations in type or depth of flight readiness inspection. Selection of the type of flight readiness inspection to be recommended is then an item which is better determined through engineering judgement. All indexed runs made utilized the daily inspection component mix defined in Appendix VII as being representative of a responsible flight-readiness inspection.

The 31 model runs listed covered interval time ranges up to 500 flight-hours and cycle time ranges up to 1200 flight-hours. Seven individually derived component inspection mixes were investigated. All basic types of inspection schemes were considered utilizing these ranges of variables.

TABLE III. INSPECTION SCHEDULE INDEX									
Scheme No.	Type	Interval	Cycle	Mix	Crew Requirements				
					LOH	AH	UH	CH-Medium CH-Heavy	
1	Periodic -Hourly	100	100	1	2	3		4	
2	Periodic -Hourly	300	300	1	2	3		4	
3	Periodic -Hourly	500	500	1	2	3		4	
4	Periodic -Calendar	60	60	1	2	3		4	
5	Periodic -Calendar	90	90	1	2	3		4	
6	Periodic -Calendar	120	120	1	2	3		4	
7	Intermediate/Periodic -Hourly	25	100	2	1-2	2-3		2-4	
8	Intermediate/Periodic -Hourly	50	100 (600)	3	1-2	2-3		2-4	
9	Intermediate/Periodic -Hourly	50	200	4	1-2	2-3		2-4	
10A	Intermediate/Periodic -Hourly	100	400	4	1-2	2-3		2-4	
10B	Intermediate/Periodic -Hourly	100	400	4	1-1	1-2		1-3	
10C	Intermediate/Periodic -Hourly	100	400	4	2-3	2-4		3-5	
11	Intermediate/Periodic -Calendar	30	120	4	1-2	2-3		2-4	
12	Intermediate/Periodic -Calendar	60	240	4	1-2	2-3		2-4	
13A	Phased -Hourly	100	800	5	2	3		4	
13B	Phased -Hourly	100	800	5	1	2		3	
13C	Phased -Hourly	100	800	5	3	4		5	

TABLE III. (Continued)

Scheme No.	Type	Interval	Cycle	Mix	Crew Requirements			
					LOH	UH	CH-Medium	CH-Heavy
14	Phased -Hourly	200	1200	6	2	3	3	4
20	Periodic -Hourly	200	200	1	2	3	3	4
21A	Intermediate/Periodic -Hourly	50	200	2	1-2	2-3	2-4	2-4
21B	Intermediate/Periodic -Hourly	50	200	2	1-1	1-2	1-3	1-3
21C	Intermediate/Periodic -Hourly	50	200	2	2-3	2-4	3-5	3-5
22A	Phased -Hourly	100	800	7	2	3	4	4
22B	Phased -Hourly	100	800	7	1	2	3	3
22C	Phased -Hourly	100	800	7	3	4	5	5
22D	Phased -Hourly	100	800	7	4	5	6	6
23A	Phased -Hourly	100	600	6(a)	2	3	4	4
23B	Phased -Hourly	100	600	6(a)	1	2	3	3
23C	Phased -Hourly	100	600	6(a)	3	4	5	5
24	Phased -Hourly	200	1200	6(a)	2	3	4	4
25	Periodic -Hourly	50	50	1	2	3	4	4

Option C model outputs provide an overview of the complete results from modeling of each candidate scheme. A one-page summary of the key factors of the results is printed out. Copies of Option C summary printouts for each of the 31 model runs are provided in Appendix VIII.

Figure of Merit for Concept Selection

Analysis of results from initial model runs made after the model was validated allowed the development of a figure of merit for ranking the results from different inspection scheme inputs. During this development, however, it became apparent that a figure of merit which attempted to weight the many outputs from the modeling into a single measure of effectiveness produced a complex equation. Such equations proved difficult to interpret and included a large number of weighting numbers which could appear to be arbitrary. It was decided to develop a simplified figure of merit which would effectively serve to select the most promising schemes and to use engineering judgement in the final selection to assure consideration of all factors including those difficult to quantify.

The simplified figure of merit used to select those schemes to be considered for further analysis was calculated from mission reliability and availability results from the first level modeling of candidate inspection schemes. Mission reliability is an indicator of both safety and aircraft reliability, and availability is the traditional measure of aircraft "up-time". Thus three major factors in evaluating an inspection scheme were considered in the figure of merit.

Figure 13 is a typical plot of reliability and availability versus inspection period derived from modeling results. The figure illustrates changes in availability and reliability for utility type aircraft inspected by periodic inspection schemes of varying interval length. For short inspection intervals, the reliability of the aircraft is high but the availability is low due to downtime for inspections. An increase in the length of the inspection interval results in a rapid increase in availability until a knee in this curve is reached. For larger intervals, very little availability is gained by further increasing the period since most of the downtime is then based on failures and unscheduled maintenance between inspections.

Model runs were made for inspection intervals below 50 hours, but the outputs have not been plotted. In the range below 50 hours, the effect of failures caused by inspections themselves

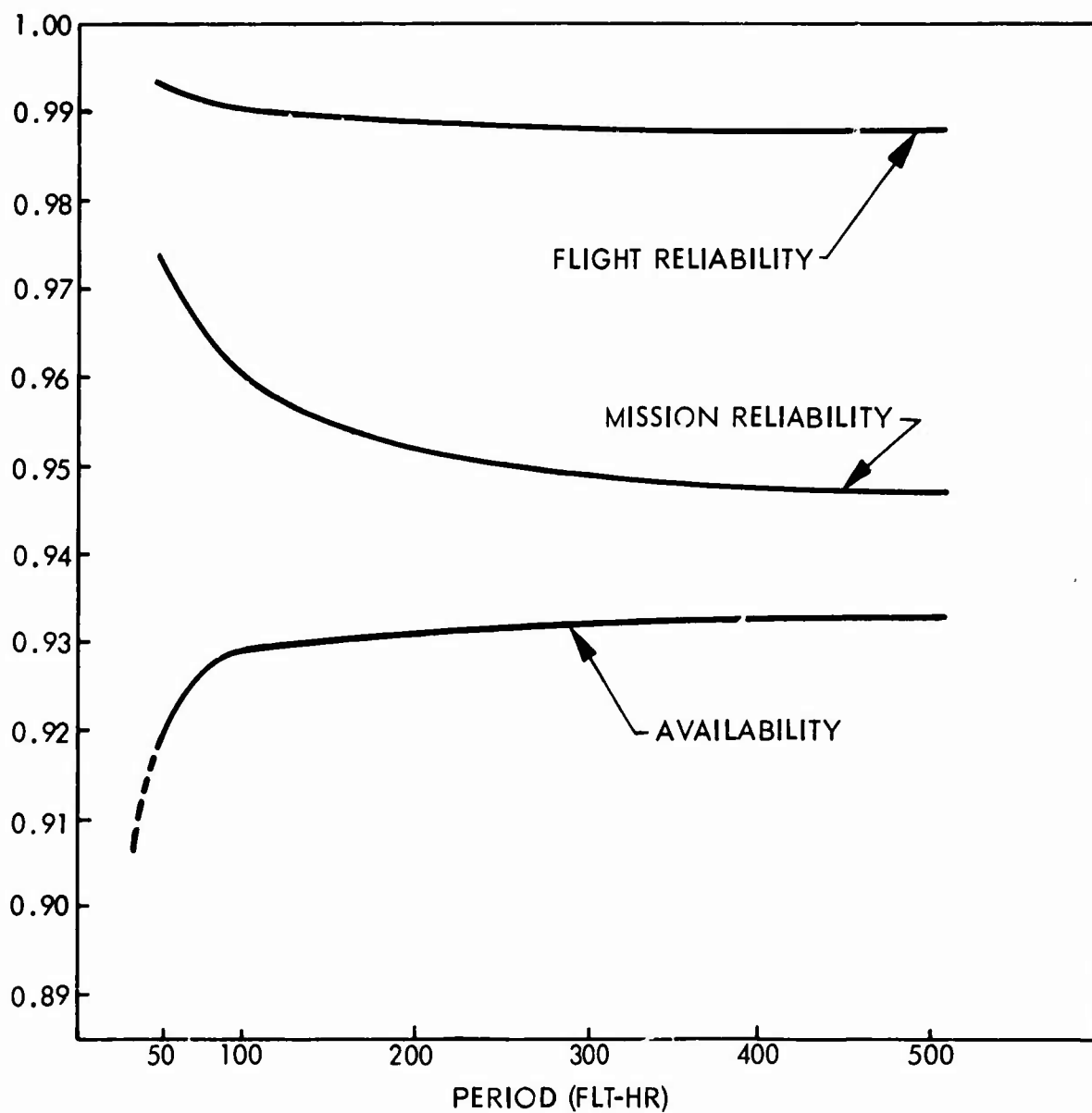


Figure 13. Reliability and Availability Versus Inspection Period (Utility Type Helicopter Periodic Inspections).

(inspection-induced failures) becomes more significant, tending to make short intervals even less attractive than is shown by the model outputs. (This effect is negligible for the range of inspection intervals considered to be among the realistic alternatives.)

The inspection scheme figure of merit for an individual aircraft type was calculated using the equation below:

Aircraft Type Figure of Merit

$$= \frac{3 (\text{Availability}) + \text{Mission Reliability}}{4}$$

This equation is the result of analysis of baseline model runs, such as those plotted in Figure 13. It was chosen to optimize at the breakpoint in the availability curves. The equation does not infer a weighting of availability as three times as important as mission reliability since the most promising schemes will be selected based upon comparative figures of merit. Note that over the flat part of the availability curve, differences between figures of merit will be influenced most heavily by mission reliability since deltas in figure of merit caused by availability will be small (three times zero equals zero). In the area of the curve where availability is rapidly increasing, the figure of merit equation causes availability to override mission reliability in importance. This relationship, then, results in highest figures of merit for schemes with the highest reliability and near-maximum availability.

The overall figure of merit for each scheme was calculated by taking a weighted average of the aircraft type figures of merit. Two sets of relative weights were used. The first was a weighting factor based on the relative quantity of each aircraft type in the inventory. The other was based on the relative numbers of scheduled man-hours per inspection cycle for each aircraft. These weighting factors and their combined weights are shown in Table IV. In the table the two sets of relative weight for each aircraft type are shown in the quantity weight and man-hour weight columns. The combined weight column shows the results of combining the two relative weighting factors. The combined weight numbers are the result of multiplying the quantity and man-hour weights for each aircraft type and normalizing the results by dividing each product by the smallest of the five quantity weight/man-hour weight products.

TABLE IV. AIRCRAFT WEIGHTING FACTORS			
Aircraft Type	Quantity Weight*	Man-Hour Weight**	Combined Weight
LOH	21	1	8.1
UH	56	1.3	28
AH	7	1.4	3.8
CH-Medium (CH-M)	6	2.5	5.8
CH-Heavy (CH-H)	1	2.6	1
*These factors based upon present inventory.			
**Factors derived from 100 hour periodic inspection baseline runs.			

Thus, the overall figure of merit, FM, is given by:

$$FM = \frac{8.1(FM [LOH]) + 28(FM [UH]) + 3.8(FM [AH]) + 5.8(FM [CH-M]) + FM [CH-H]}{46.7}$$

The selection of the recommended scheme makes use of the figure of merit for screening the different concepts. Additional engineering analysis then considers, for schemes with highest figure of merit, other factors such as comparative cost and uniformity of work distribution in the selection of the most effective concept.

Inspection Concept Comparison Analyses

Computer modeling for each of the inspection schemes listed in the inspection scheme index of Table III combined with engineering analysis of critical contributing factors allowed the selection of the recommended inspection concept for Army helicopters. The paragraphs which follow describe these figure-of-merit and engineering analyses. The scheme recommended as the most effective inspection scheme applicable to Army helicopter systems is selected, and this recommendation is supported.

Figure-of-Merit Screening Analysis of Results

The ideal inspection concept would have the following characteristics:

- High Mission Reliability
- High Aircraft Availability
- Low Maintenance Cost
- Low Unscheduled Maintenance Frequency

Analysis of the model output data confirms that any chosen concept must result from a direct tradeoff between these goals. The previous paragraph described the calculation of a figure of merit used to screen out the best inspection schemes. This figure of merit emphasizes the schemes with the highest mission reliability possible at near-maximum availability. Consideration of cost (MH/FH), unscheduled maintenance frequency, and other factors such as the ability to schedule maintenance and avoid workload peaks is left for engineering evaluation of those schemes showing highest figure of merit.

Table V provides a figure-of-merit summary of the basic inspection schemes evaluated. Aircraft type figures of merit for each model and combined figures of merit are shown. The data indicates consistent superiority of intermediate/periodic and phased schemes over periodic type inspection. It is also apparent that, whereas figure of merit decreases as interval time increases for periodic inspections, for intermediate/periodic and phased schemes there is first an increase and then a decrease in merit. Highest figures of merit occur when the interval is from 50 to 100 hours and the cycle is 200 hours or greater in an intermediate/periodic or phased inspection. These data then indicate that the recommended inspection scheme should have components critical to flight safety and those with high failure rates inspected after 50 to 100 flight-hours, with the remaining components inspected at some point or points in time over a 200-hour or greater cycle.

Figures 14 through 17, for the UH and CH-Medium, confirm that for the small sacrifices in flight reliability to achieve the breakpoint in availability inherent in the figure of merit (see Figure 13), the other characteristics involved in the tradeoff are also better served by increasing interval times to 50 to 100 hours and cycle times to 200 hours or beyond. The curves also indicate that the major savings available in cost (total MH/FH) are achieved through these increases in interval and cycle times while incurring bearable increases in unscheduled maintenance requirements. Increasing interval times also serves to lessen the impact of inspection-induced failures.

TABLE V. FIGURE-OF-MERIT SUMMARY

Scheme No.	Inspection Type	Interval	Cycle	Figure-of-Merit Aircraft Type					
				LOH	UH	AH	CH-M	CH-H	Combined
1	Periodic-Hourly	100	100	0.9505	0.9367	0.9415	0.9257	0.9165	0.9377
2	Periodic-Hourly	300	300	0.9527	0.9362	0.9387	0.9232	0.9105	0.9371
3	Periodic-Hourly	500	500	0.9532	0.9365	0.9382	0.9220	0.9087	0.9372
4	Periodic-Calendar	60	60	0.9510	0.9367	0.9402	0.9250	0.9165	0.9376
5	Periodic-Calendar	90	90	0.9525	0.9367	0.9392	0.9240	0.9130	0.9376
6	Periodic-Calendar	120	120	0.9530	0.9362	0.9390	0.9235	0.9117	0.9373
7	Intermediate/Periodic-Hourly	25	100	0.9452	0.9385	0.9417	0.9330	0.9257	0.9390
8	Intermediate/Periodic-Hourly	50	100 (600)	0.9510	0.9407	0.9470	0.9315	0.9242	0.9415
9	Intermediate/Periodic-Hourly	50	200	0.9532	0.9430	0.9482	0.9337	0.9257	0.9437
10	Intermediate/Periodic-Hourly	100	400	0.9545	0.9407	0.9485	0.9295	0.9185	0.9416
11	Intermediate/Periodic-Hourly	30	120	0.9550	0.9392	0.9485	0.9375	0.9332	0.9424
12	Intermediate/Periodic-Calendar	60	240	0.9545	0.9370	0.9420	0.9297	0.9272	0.9392
13	Phased-Hourly	100	800	0.9520	0.9387	0.9420	0.9260	0.9152	0.9392
14	Phased-Hourly	200	1200	0.9530	0.9372	0.9397	0.9240	0.9117	0.9380
20	Periodic-Hourly	200	200	0.9520	0.9362	0.9395	0.9237	0.9117	0.9372
21	Intermediate/Periodic-Hourly	50	200	0.9512	0.9407	0.9430	0.9302	0.9102	0.9410
22	Phased-Hourly	100	800	0.9552	0.9415	0.9452	0.9302	0.9192	0.9423
23	Phased-Hourly	100	600	0.9522	0.9390	0.9430	0.9277	0.9172	0.9398
24	Phased-Hourly	200	1200	0.9530	0.9372	0.9397	0.9240	0.9117	0.9380

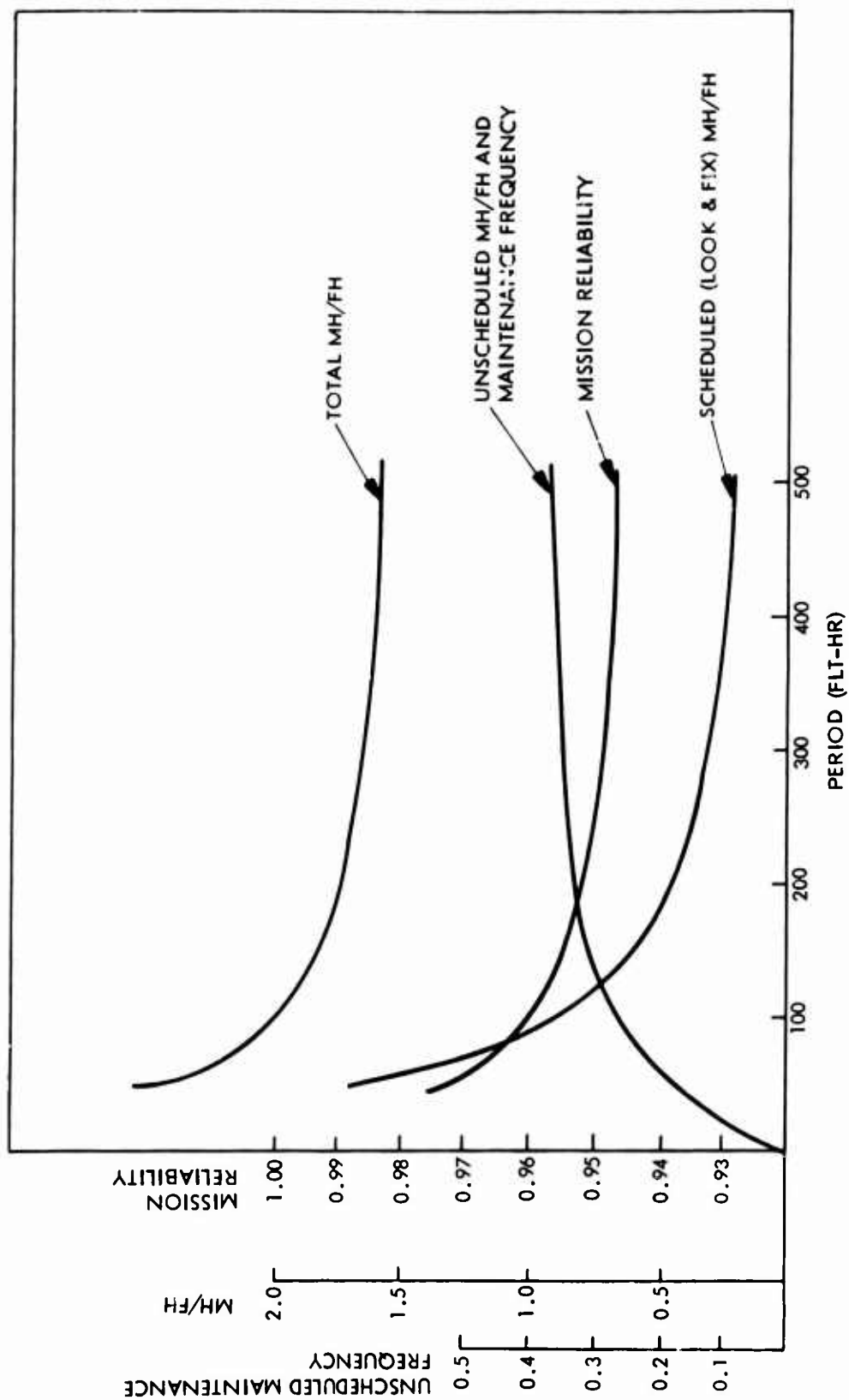


Figure 14. Utility Type Helicopter Periodic Inspection Concept

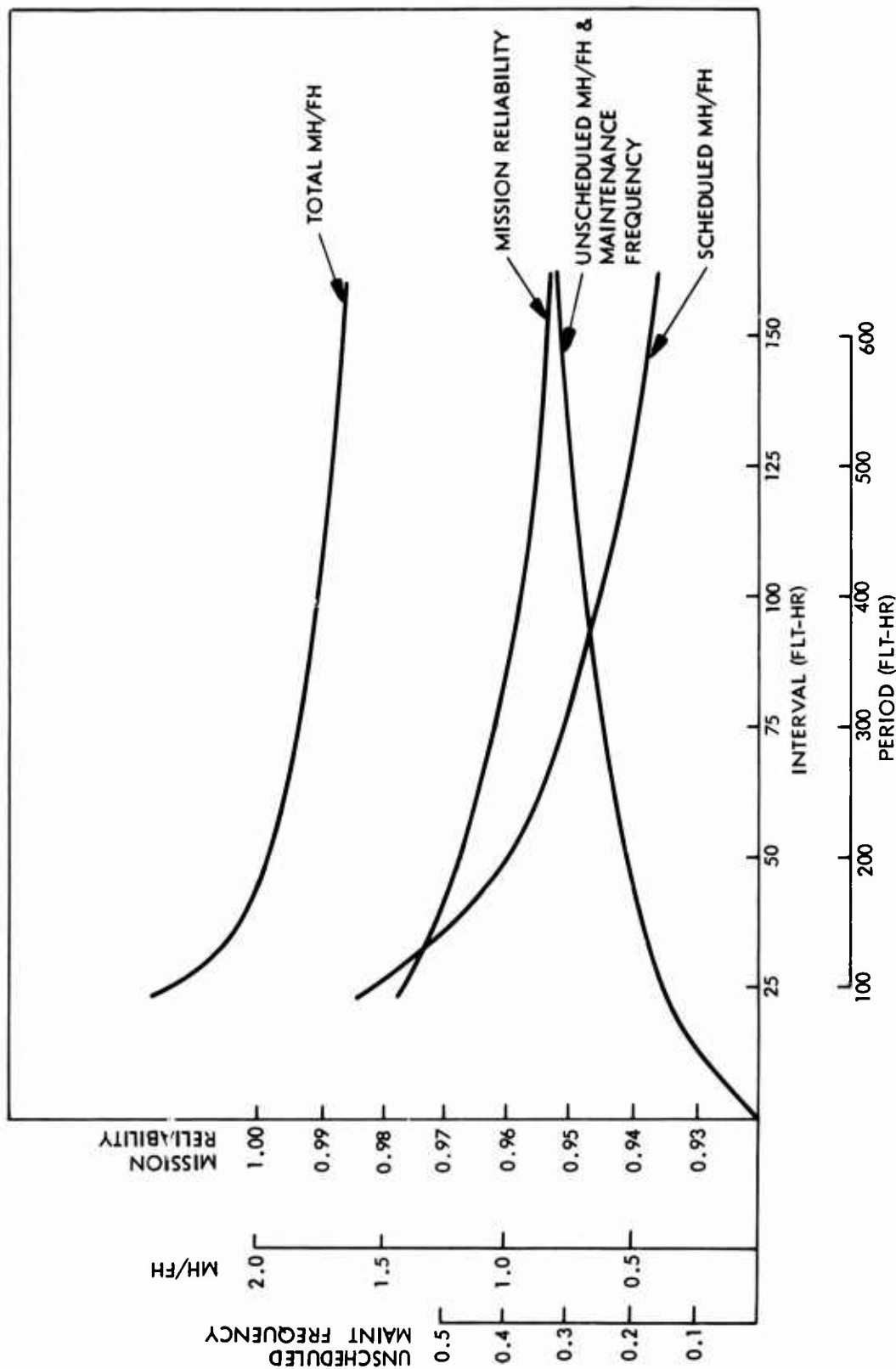


Figure 15. Utility Type Helicopter Intermediate/Periodic Inspection Concept.

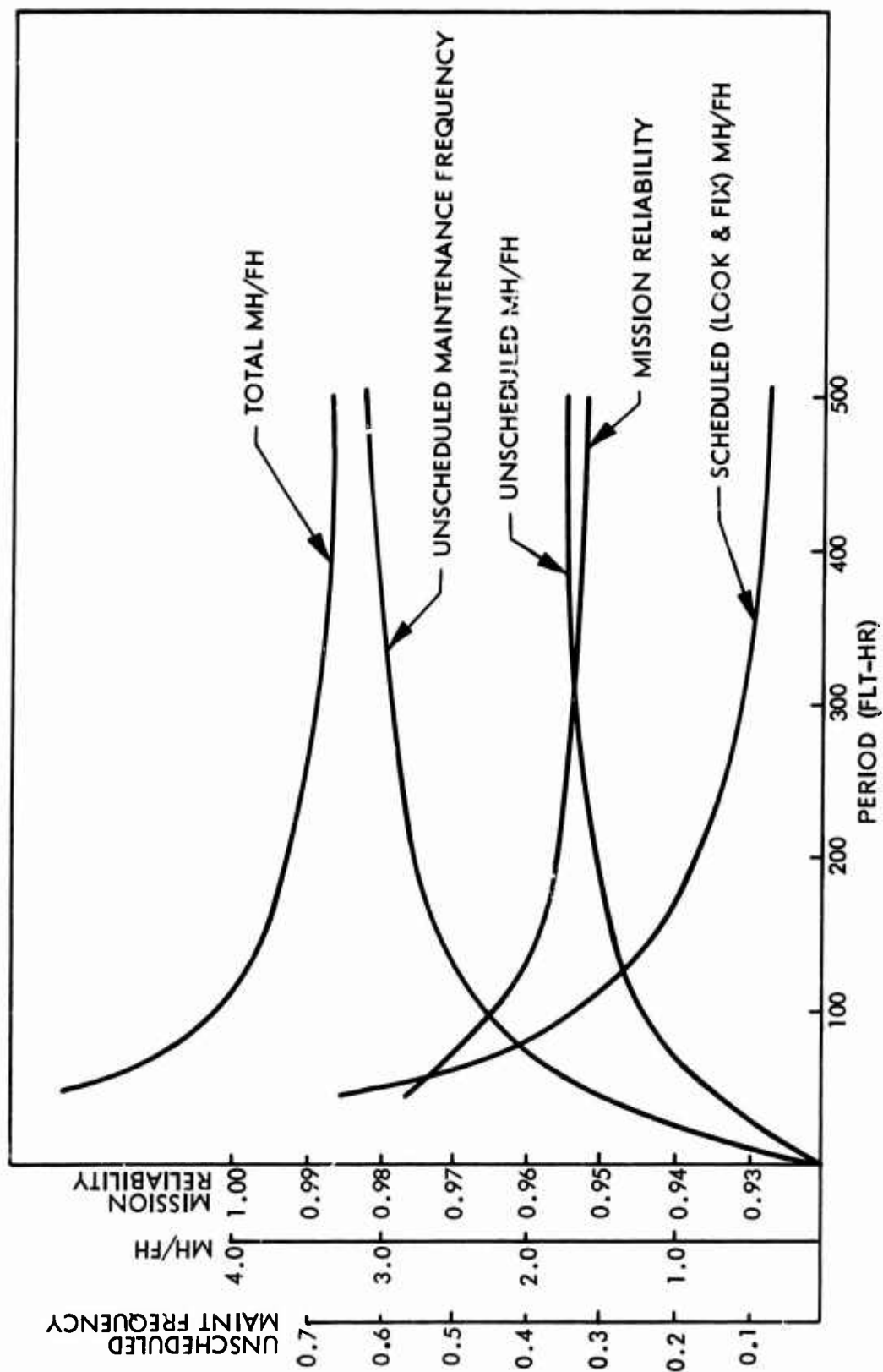


Figure 16. CH-Medium Helicopter Periodic Inspection Concept.

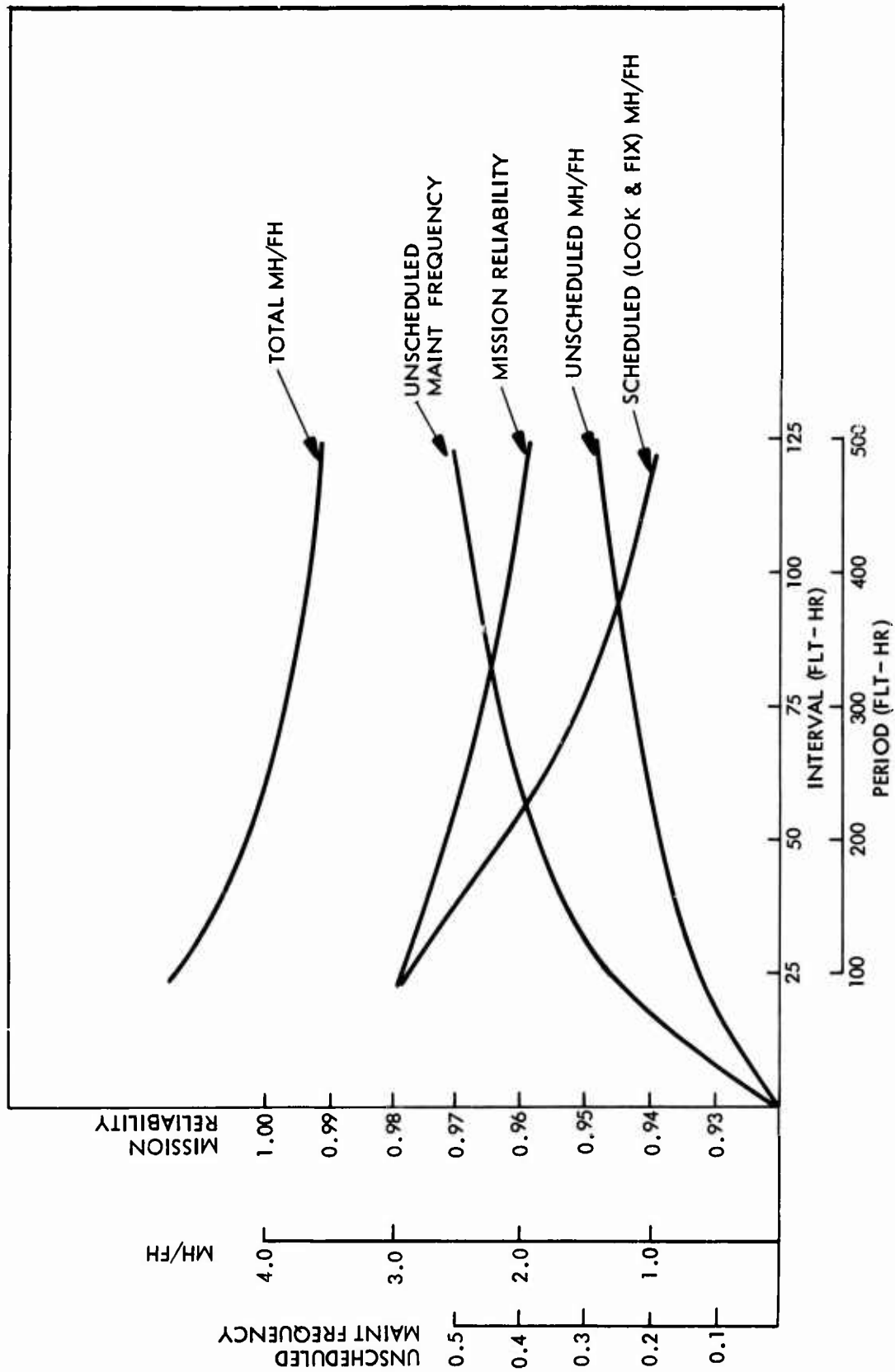


Figure 17. CH-Medium Helicopter Intermediate/Periodic Inspection Concept .

Of the candidates evaluated, the most promising based upon the screening analysis are schemes 9, 11, and 22, which display the highest combined figures of merit (0.9437, 0.9424, and 0.9423, respectively). These schemes then are those to be considered for final selection as the recommended concept.

Evaluation of Most Promising Concepts

The schemes remaining are of three different types: intermediate/periodic-hourly (9), intermediate/periodic-calendar (11) and phased-hourly (22). Calendar and phased type inspections are both outgrowths of the intermediate/periodic-hourly scheme, but there are important advantages and disadvantages between them.

A calendar inspection system offers a scheduling advantage over systems based on flight-hour cycles. Under the calendar concept, inspection schedules can be planned well in advance, avoiding the queueing problems created by irregular aircraft use and aircraft arriving at inspection points in comparatively random fashion.

However, the calendar system suffers from irregular flight utilization, causing aircraft with low use to be overinspected while those with peak use are underinspected. Moreover, the benefits of calendar scheduling can be maintained only if aircraft are inducted into calendar checks when they are due regardless of the calendar time expired since the aircraft completed its last check. When delays (parts, major repairs, etc.) cause an aircraft to remain in calendar check for prolonged periods, the calendar time over which it is next available for use by the operator is accordingly shortened. This situation inevitably produces lower overall aircraft availability and consequently higher operating costs (a characteristic of the calendar concept which could not be numerically assessed by the model).

Although nearly all systems based on an hourly cycle can be adapted to a calendar interval, the inherent disadvantages to calendar scheduling require that each application be considered individually, including such factors as the size of the operating unit, average utilization, flight priorities, inspection turnaround time, etc.

Phased inspection concepts offer several inherent advantages over the intermediate-periodic schemes. The most significant is less severe disruptions to the aircraft operating schedule since

the downtime at each inspection point is shorter than for a periodic inspection. Each inspection point represents a smaller, more manageable work package. Greater flexibility is also offered in design of inspection checklists, which can be made to cover selected areas of the helicopter at each interval. The range of specialist skills, test equipment, etc., required at any one inspection point can therefore be reduced, as can the number of personnel-induced problems created by the inspection function. For a long phased cycle, components with high reliability or long deterioration times can be stretched to longer inspection intervals.

Figures 18, 19, and 20 are Model Option C output summary matrices for the three most promising candidate schemes. Comparison of the data from these charts indicates only slight differences in flight and mission reliability and availability between the schemes. For example, for the UH and CH-Medium, we have the following indicators:

UH

<u>Scheme</u>	<u>Flight Reliability</u>	<u>Mission Reliability</u>	<u>Availability</u>
9	0.992	0.970	0.927
11	0.990	0.961	0.931
22	0.989	0.958	0.936

CH-MEDIUM

<u>Scheme</u>	<u>Flight Reliability</u>	<u>Mission Reliability</u>	<u>Availability</u>
9	0.992	0.972	0.908
11	0.992	0.969	0.910
22	0.990	0.961	0.920

Review of these figures confirms the need for the final concept selection to be based upon other factors.

A comparison of unscheduled maintenance man-hours per flight-hour for the three schemes indicates a slight advantage to the intermediate/periodic-hourly concept (scheme 9). For example, in the case of the UH, 0.465 unscheduled MH/FH are required compared to 0.620 MH/FH for the calendar concept (scheme 11) and 0.687 for the phased inspection (scheme 22).

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.994	0.992	0.993	0.992	0.982
Mission Reliability	0.975	0.970	0.973	0.972	0.931
Availability	0.935	0.927	0.934	0.908	0.912
Norm - Scheduled	0.043	0.043	0.038	0.053	0.048
Norm - Unscheduled	0.021	0.030	0.028	0.039	0.040
MH/FH - Flt-Readiness Insp	0.303	0.440	0.519	1.185	1.072
MH/FH - Scheduled - Look	0.493	0.707	0.682	1.240	1.340
MH/FH - Scheduled - Fix	0.343	0.462	0.555	0.936	0.961
MH/FH - Unscheduled Maintenance	0.379	0.465	0.494	0.849	1.024
MH/FH - Total	1.517	2.074	2.251	4.210	4.397
Unscheduled MTBM	6.1	4.9	4.7	2.9	2.4

Average Utilization	70.	80.	70.	60.	50.
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	2.0	2.0
(Per)	2.0	3.0	3.0	4.0	4.0

Figure 18. Model Option C Summary Matrix - Inspection Scheme 9.

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.993	0.990	0.991	0.992	0.982
Mission Reliability	0.970	0.961	0.968	0.969	0.931
Availability	0.942	0.931	0.937	0.910	0.912
Norm - Scheduled	0.032	0.028	0.029	0.045	0.048
Norm - Unscheduled	0.026	0.040	0.034	0.045	0.040
MH/FH - Flt-Readiness Insp	0.307	0.448	0.526	1.191	1.072
MH/FH - Scheduled - Look	0.359	0.456	0.496	1.042	1.340
MH/FH - Scheduled - Fix	0.273	0.318	0.449	0.828	0.961
MH/FH - Unscheduled Maintenance	0.452	0.620	0.604	0.965	1.024
MH/FH - Total	1.391	1.843	2.075	4.027	4.397
Unscheduled MTBM	5.2	3.9	3.9	2.6	2.4

Average Utilization	70.	80.	70.	60.	50.
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	2.0	2.0
(Per)	2.0	3.0	3.0	4.0	4.0

Figure 19. Model Option C Summary Matrix - Inspection Scheme 11.

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.977
Mission Reliability	0.965	0.958	0.961	0.961	0.908
Availability	0.952	0.936	0.940	0.920	0.923
Norm - Scheduled	0.017	0.019	0.017	0.020	0.018
Norm - Unscheduled	0.031	0.045	0.043	0.059	0.058
MH/FH - Flt-Readiness Insp	0.310	0.451	0.531	1.205	1.093
MH/FH - Scheduled - Look	0.284	0.372	0.357	0.636	0.695
MH/FH - Scheduled - Fix	0.194	0.257	0.311	0.538	0.549
MH/FH - Unscheduled Maintenance	0.539	0.687	0.754	1.279	1.467
MH/FH - Total	1.327	1.768	1.953	3.659	3.804
Unscheduled MTBM	4.4	3.5	3.2	2.1	1.7

Average Utilization	70.	80.	70.	60.	50.
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

Figure 20. Model Option C Summary Matrix - Inspection Scheme 22A.

This advantage is heavily outweighed, however, when a cost comparison is made between the schemes. As noted on page 5, total maintenance man-hours per flight-hour was used as the measure of cost. This excludes overhead, administrative, material and other logistics costs, but these, for the most part, vary directly with labor demand. Using direct labor as the single measure of cost allows uncomplicated comparison of inspection schemes.

In the cost comparison of the three schemes, inspection scheme 22 shows a clear advantage over its competition. Costs are consistently lower for all aircraft types. A summary for the UH and CH-Medium aircraft is presented below:

<u>Scheme</u>	<u>UH Total MH/FH</u>	<u>CH-Medium Total MH/FH</u>
9	2.074	4.210
11	1.843	4.027
22	1.768	3.659

These figures indicate cost savings of 4.2 percent for scheme 22 over scheme 11 in maintaining UH type aircraft and a 10 percent saving advantage in maintaining the CH-Medium. When comparing schemes 22 and 9, scheme 22 appears to even greater advantage. For the UH and CH-Medium, savings of 17 percent and 15 percent, respectively, are indicated.

For clarity in considering relative cost, Figures 21 and 22 are presented. The figures show data points of cost versus mission reliability for UH and CH-Medium aircraft types for all basic schemes evaluated in the study. The figures clearly indicate the comparative disadvantage of the periodic inspection concepts relative to other schemes. They also indicate the small sacrifice in mission reliability that is involved in achieving the cost savings available from inspection scheme 22, the phased inspection concept.

Recommended Inspection Concept

The 100-flight-hour interval, 800-flight-hour cycle phased inspection scheme is recommended as the most effective inspection concept for the five basic helicopter types considered. This selection is based on the analysis of modeling data and by the qualitative advantages of phased inspection discussed in the previous paragraph. Phased inspection also provides a smooth,

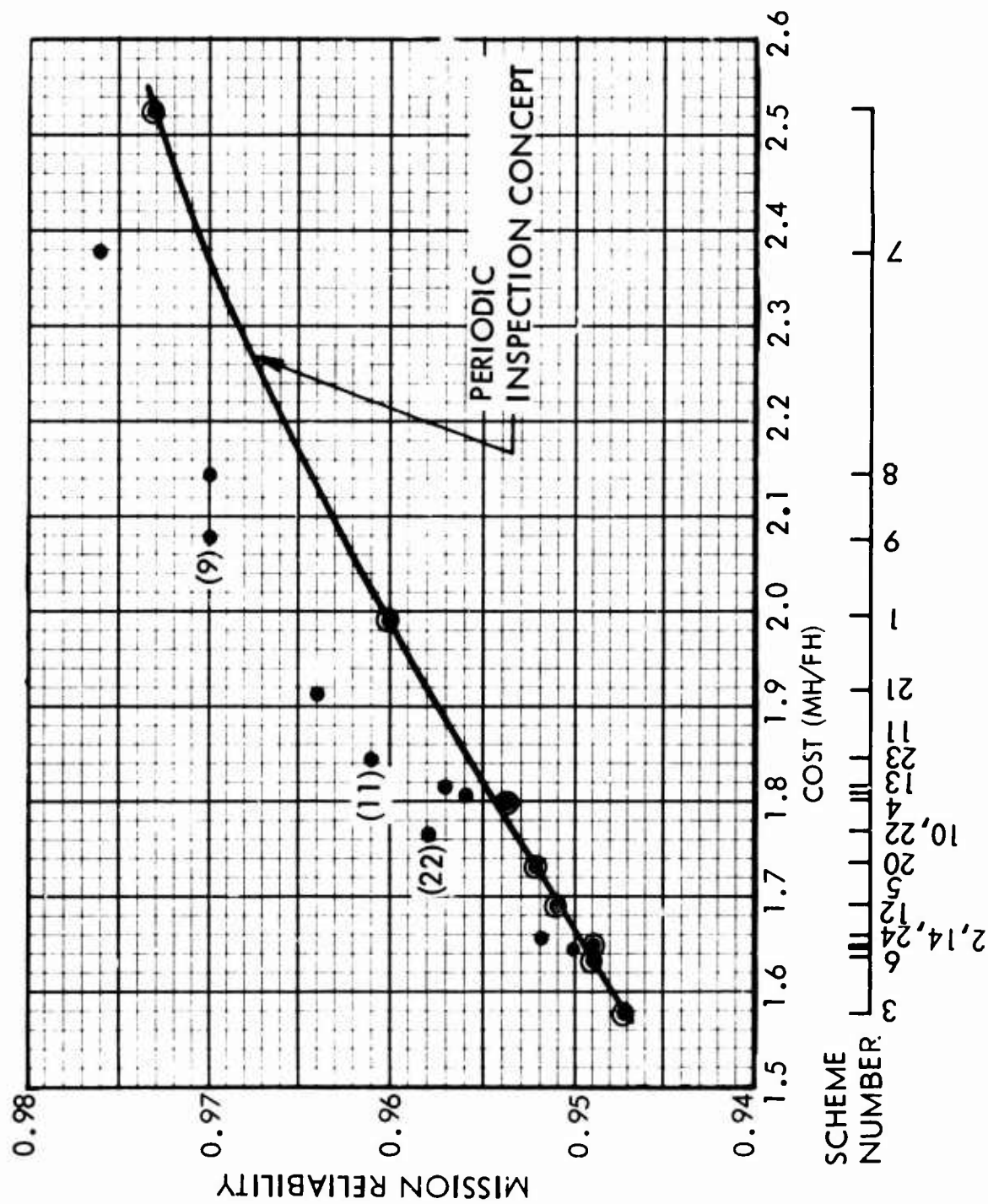


Figure 21. Utility Type Helicopter Mission Reliability Versus Cost.

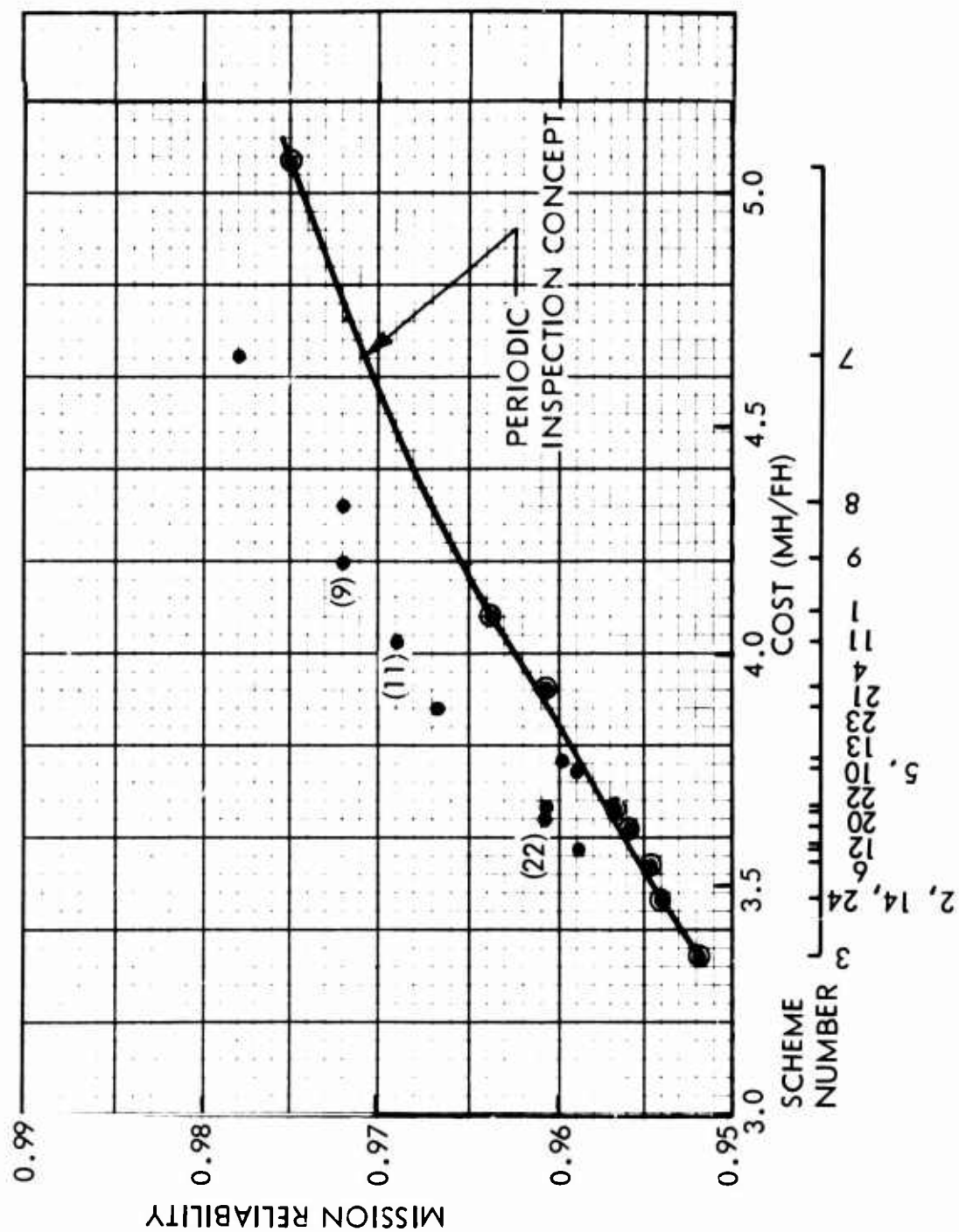


Figure 22. CH-Medium Helicopter Mission Reliability Versus Cost.

manageable workload and effective usage of higher personnel skill levels.

As noted in the discussion of model application above, the modeling indicated little difference from choice of flight-readiness inspection type. In all model runs, a responsible daily inspection was included as defined in Appendix VII. Change from the present Army concept of daily inspections does not seem warranted since it is the quality of the flight-readiness inspection and the list of items to be inspected which is of primary importance, not the inspection nomenclature which is used. No change is therefore recommended from the present practice of continuous daily inspection by the crew chief assigned to each aircraft.

SELECTED INSPECTION CONCEPT REVIEW AND DEVELOPMENT

After selection of the 100-800 phased hourly inspection as the recommended concept, further analyses were performed to refine and develop the concept. These analyses examined the following areas:

1. Inspection crew sizes for scheduled inspections
2. Comparison of the recommended concept with the Army helicopter inspection desired characteristics
3. Review and refinement in the phasing of the generic component inspection scheduling for the selected concept
4. Preparation of an applicable checklist for technology review of future aircraft designs.

The paragraphs which follow describe the work performed and the results of these analyses.

Inspection Crew Sizes

Modeling run outputs utilized in the analyses which selected the recommended concept considered the inspection crew sizes for each of the typical aircraft to be a constant. This avoided misconceptions in comparing figures of merit for different schemes since crew size variation impacts availability without affecting reliability in the modeling equations. Crew size also is of lesser importance than the other factors considered. Thus,

all model run outputs used for calculating figures of merit were based upon a standard crew size for all inspections as shown below.

<u>Aircraft Type</u>	<u>Standard Crew Size</u>
LOH	2
UH	3
AH	3
CH-Medium	4
CH-Heavy	4

As shown in Table III, model runs were made which investigated the effect of inspection crew size variations on aircraft availability. Results of model runs for the recommended inspection scheme are given in Table VI below.

TABLE VI. CREW SIZE AND AVAILABILITY FOR SCHEME 22		
A/C Type	Inspection Crew Size	Availability
LOH	1	0.941
	2	0.952
	3	0.955
	4	0.957
UH	2	0.929
	3	0.936
	4	0.939
	5	0.940
AH	2	0.934
	3	0.940
	4	0.942
CH-Medium	3	0.916
	4	0.920
	5	0.923
	6	0.924
CH-Heavy	3	0.919
	4	0.923
	5	0.926
	6	0.927

For any given inspection period, the downtime is a function of the amount of looking and the amount of fixing necessary. Increasing the inspection crew size can not decrease the downtime below the amount of time needed to perform the necessary preventive repairs. Thus, as inspection crew size is increased, a marginal increase in availability is achieved. Considering this marginal contribution as shown in Table VI and the desired clock hours of downtime per 100 flight-hours results in recommendation of the inspection crew sizes tabulated below.

<u>A/C Type</u>	<u>Inspection Crew Size</u>	<u>Average Inspection Downtime (hr)</u>
LOH	2	18
UH	2	23
AH	2	23
CH-Medium	3	29
CH-Heavy	3	32

Review of Army Helicopter Inspection Desired Characteristics

The Army's stated goals for helicopter inspection systems were a factor throughout the analyses. In the paragraphs which follow, each goal is discussed individually and, where study results indicate a need, revisions to these desired characteristics are recommended.

1. Same for All Aircraft - The concept recommended in the study is a single inspection scheme recommended as best for all five typical helicopter types. The selection was made using mathematical modeling and engineering judgment which considered a "composite" helicopter configuration file for the five types as the data base.

This approach, then, used this desired characteristic as a base line and the results coincide with the characteristic. Separate analyses for each typical aircraft type might have indicated different schemes as best for different types if mathematical modeling had been used as the only criterion for selection. Engineering analysis, however, was used as a supplement to the model in the decision.

Review of modeling results by aircraft type and the study engineering analyses indicates the phased inspection to be the best scheme for all five aircraft types.

2. Accomplished Predominately by Crew Chief - Modeling during the study considered the impact of varying scheduled inspection crew size upon aircraft downtime. However, as noted in the earlier discussion of crew sizes, minimum crew size was considered to be of secondary importance in selecting the most effective inspection concept compared to safety, reliability, availability and cost. Study results indicate crew sizes of two or three men (dependent upon aircraft type) to be required to achieve acceptable aircraft availability and to achieve inspection clock hours for aircraft type (item 4 below) which are in best agreement with the desired characteristics in that area. It should also be noted that these crew sizes greater than one man are required even though inspection cycle times longer than those presently defined are a major study recommendation.

It is therefore recommended that this goal be changed to designate crews of the following sizes:

LOH	-	2
UH	-	2
AH	-	2
CH-Medium	-	3
CH-Heavy	-	3

3. Minimum Special Inspections - The basic objectives of the study involved aircraft scheduled inspections. This is a category different from the requirement for special inspection. Special inspections are generally geared to specific items which require a thorough examination after being subjected to certain conditions or incident. As such, these inspections are largely safety-of-flight requirements.

The desired characteristic of minimum special inspections can be achieved through better aircraft designs for inspection and through improved knowledge of how to inspect the aircraft. Improvements in these areas will reduce special inspection requirements since inspection crews will inherently be better able to assess aircraft condition and make more thorough aircraft inspection. Future study of aircraft design approaches for inspection should consider aircraft subsystems most heavily involved in special inspection.

It should also be noted that requirements for special inspections can be reduced through improved design of components for higher reliability. Knowledge of the degree of overstress that the aircraft has been subjected to would also tend to reduce special inspection requirements.

4. Clock Hours per A/C Type To Complete a Cycle of Inspections (per 100 Hours) - This is an item which can be calculated and printed out in each run of the helicopter inspection model developed and used in this study. As noted in item 2 above, it is dependent upon aircraft inspection crew size and therefore was reviewed in conjunction with evaluation of crew size variation. For the recommended inspection scheme with the crew sizes recommended in item 2 above, model runs indicate the following clock hour requirements:

LOH	-	16.5
UH	-	23
AH	-	23
CH-Medium	-	29
CH-Heavy	-	32

This compares with the Army's present desired characteristics of:

LOH	-	4
UH	-	20
AH	-	24
CH-Medium	-	40
CH-Heavy	-	28

Comparison of these lists indicates that modeling results which are predicated upon existing hardware designs confirm the ability to achieve this desired characteristic for all aircraft but LOH. It should be noted that the model calculations for LOH could be somewhat higher than they should be since the composite aircraft configuration characteristics used in the modeling and the averaging techniques used in determining them may indicate inspection time requirements somewhat higher than necessary for LOH. A better determination in this area might be made through loading and running the model with configuration files specifically for each aircraft type.

From a review of the study modeling results and assuming improvement in designs for inspection and inspection techniques in future aircraft, engineering judgement indicates the following as desirable goals for inspection clock hours per 100 flight-hours:

LOH	-	12
UH	-	20
AH	-	20
CH-Medium	-	28
CH-Heavy	-	28

It is recommended that the Army's goals be revised to reflect these numbers at this time. Note that these recommended times do not consider avionics and weapon system inspection requirements since these were not included in the study.

5. Probability of Detecting Incipient Failures - 1.0 - One hundred percent probability of detecting incipient failures is the ideal design goal for any inspection system. In the foreseeable future, however, achieving this desired characteristic is not within the state of the art. The symptoms of impending failure in many components are unknown, and inspections for those incipient failures which do exhibit characteristic wear-out or failure signs are not carried out consistently.

Further work is warranted in this area since higher detection probabilities than are presently reachable can be attained both in presently operational and in the next generation of aircraft. In both areas, study of component failure modes, the symptoms of the common failure modes, and the best techniques for detecting these symptoms should make available improvement in the inspection system. Better knowledge of what symptoms to look for and the techniques best applicable are direct inputs in achieving higher probabilities of detecting incipient failures.

6. Systematized and Chronological in Nature - Efficient inspections in any case can be achieved only if they follow systematized, chronological procedures. This requirement is of greatest importance in the type of inspection concept recommended as the result of this study. The phased

inspection selected is by its very nature systematized and chronological. It involves a long inspection cycle with different areas of the aircraft scheduled at a specific time (or times) within that cycle. Efficiency and assurance that the aircraft is inspected properly are highly dependent upon a systemized procedure. In future aircraft, packaging of subsystem hardware to facilitate a phased inspection is an important goal.

Selected Concept - Phased Inspection Schedule

As part of review and development of the inspection concept recommended as most effective, the inspection mix for that scheme as utilized in the modeling (Mix 7 of Appendix VI) was analyzed. The phasing of scheduled inspections for each generic component within the master configuration file was examined to refine the workload at the inspection points. Minor modifications in scheduling were made to equalize the workload requirement across the cycle.

The results of the analysis are provided in Appendix IX, "Component Mix for Recommended Inspection Concept". Inspection schedule is indicated by component for each 100-hour inspection interval. Two complete 800-hour inspection cycles are shown to fully define the recommended inspection points.

Technology Review Checklist for Helicopter Inspections

Design of aircraft has, until recently, seen the major emphasis applied to such primary objectives as performance, weight and cost. With the burgeoning costs of maintaining today's complex airborne systems, much attention is now being focused on reliability and maintainability as important design objectives. One aspect of the maintainability problem has, heretofore, received limited attention - that of aircraft scheduled inspections. As a result, the downtime and man-hours devoted to this function have risen sharply over the years.

In order for the designer to approach the problem of aircraft inspections intelligently, it is apparent that some prior knowledge of the inspection requirement is needed. Such information as the anticipated inspection method and frequency, equipment and facilities used, and personnel skills required can have a significant impact on the design concept. Designing for inspection is obviously concerned with equipment arrangement, packaging and installation, accessibility provisions, accommodations

for inspection equipment, and built-in devices for facilitating the inspection task. All of these factors have an important bearing on the time and cost of inspection.

A checklist system was developed to aid the designer in this area. Two checklists are used: a scheduling checklist and a designer's checklist. The first of these provides a systematic approach to scheduling components for inspection on the basis of known or anticipated failure characteristics and inspection methods. The second checklist guides the designer in such considerations as accessibility, system arrangement, and the use of integral inspection aids based on the decisions made in completing the scheduling checklist.

Application of the checklists is an iterative process. During the design study phase, components are tentatively scheduled for inspection on the basis of past history, engineering judgment, etc. At this point it may not be possible to answer all parts of the scheduling checklist, but sufficient information should be provided to select the design approach. The designer's checklist is then employed to guide design development along the lines of the planned inspection concept. After the design has been completed, it will often be necessary to return to the scheduling checklist to make adjustments on the basis of new knowledge or changes in the final design. This process could be repeated several times depending on the complexity of the design, period of development, etc. The procedure ensures that the development of inspection requirements parallels and influences design, rather than being left as an afterthought.

The two checklists are presented on the pages that follow.

SCHEDULING CHECKLIST

PART I - FAILURE CHARACTERISTICS AND INSPECTION METHODS

- A. Anticipated Failure Rate: ☐ LOW
☐ MODERATE
☐ HIGH
- B. Prevalent Failure Modes: _____ %
_____ %
_____ %
_____ %
- C. Time From Onset of Deterioration to Failure: ☐ SUDDEN FAILURE
☐ SHORT
☐ MODERATE
☐ LONG
- D. Inspection Methods: ☐ BITE
☐ BIM
☐ SPECTROGRAPHIC OIL ANALYSIS
☐ OPERATIONAL VISUAL CHECK
☐ OPERATIONAL AUDIO CHECK
☐ OPERATIONAL VIBRATORY CHECK
☐ OPERATIONAL TEMPERATURE CHECK
☐ FUNCTIONAL CHECK
☐ STATIC VISUAL CHECK
☐ MANUAL PLAY/CLEARANCE CHECK
☐ PRECISION DIMENSIONAL CHECK
☐ TORQUE CHECK
☐ TENSION CHECK
☐ SPRING RATE TEST
☐ VACUUM CHECK
☐ PRESSURE TEST
☐ FLOW RATE CHECK
☐ OPTICAL MAGNIFICATION INSP
☐ DYE PENETRANT INSPECTION
☐ MAGNETIC PARTICLE INSPECTION
☐ X-RAY INSPECTION
☐ ELECT/AVIONIC CHECK (COMMON)
☐ ELECT/AVIONIC CHECK (SPECIAL)
☐ TAP TEST
☐ FRICTION CHECK
☐ ALIGNMENT CHECK
☐ TIME CHECK

PART I - FAILURE CHARACTERISTICS AND INSPECTION METHODS (Con't)

E. Considerations:

1. Are the selected methods of inspection consistent with the predominant modes of failure anticipated? ☐YES ☐NO
2. For each of the inspection methods, are the acceptance/rejection criteria being considered reasonable? (Don't promote unnecessary rejections with overly conservative criteria.) ☐YES ☐NO
3. Will the failure frequency be consistent enough to permit inclusion of the component in a mandatory retirement list, thereby substituting arbitrary replacement based on operating hours in lieu of any inspection? ☐YES ☐NO
4. Would it be advantageous to substitute a more thorough or comprehensive inspection at a longer interval in place of two or more less searching out short-interval inspections? ☐YES ☐NO

PART II - DETERMINING IF ITEM IS FLIGHT-READINESS CANDIDATE:

- A. Is it likely that the component will have more than a negligible probability of failure during flight? ☐ YES ☐ NO
- B. Is it probable that failure in any significantly occurring mode will substantially degrade mission performance or cause an abort? ☐ YES ☐ NO
- C. Will failure in any significantly occurring mode threaten flight safety? ☐ YES ☐ NO
- D. Is the anticipated failure characteristic such that evidence of deterioration precedes actual failure? ☐ YES ☐ NO
- E. Will it be possible for deterioration or the onset of failure to be detected with inspection techniques available to organizational level maintenance? ☐ YES ☐ NO
- F. Will the anticipated inspection task be completed in a reasonably short period of time? ☐ YES ☐ NO
- G. Can the inspection be performed by the crew chief? ☐ YES ☐ NO
- H. Is it unlikely that inspection being considered will damage the component or make it more vulnerable to failure in future use? ☐ YES ☐ NO
- I. Is it unlikely that the ground or flight crew would detect deterioration or failure in the normal course of their duties even if no inspection were performed? ☐ YES ☐ NO
- J. Will crew confidence be enhanced by performing a flight-readiness inspection? ☐ YES ☐ NO

PART II - DETERMINING IF FLIGHT-READINESS CANDIDATE (Con't):

Answering the majority of the above questions in the affirmative, especially the first three, indicates that the component probably merits inclusion in a flight-readiness inspection. Once a decision has been made to schedule a component for inspection at the flight-readiness level, it is necessary to determine which inspection point (if more than one are included in the concept) is the most appropriate. The following checklist will be used as an aid in the decision.

PART III - DETERMINING IF ITEM IS A PREFLIGHT OR POSTFLIGHT
CANDIDATE:

- A. Will it be acceptable to conduct more than one flight between inspections of the component? ☐ YES ☐ NO
- B. Is it anticipated that evidence of deterioration or failure will be greatest immediately prior to a flight? ☐ YES ☐ NO
- C. Is it anticipated that evidence of deterioration or failure will be greatest immediately after a flight? ☐ YES ☐ NO
- D. Is the component likely to be damaged through ground handling or other routine maintenance operations in periods between flight activity. ☐ YES ☐ NO

Answering question (A) in the affirmative eliminates the component as a candidate for either preflight or postflight inspection, and the component should be included only in the daily schedule. Conversely, a negative response to question (A) qualifies the item for pre- or postflight inspection. The answers to the remaining three questions will aid in determining which one to select.

All components will be subjected to a scheduled inspection at least once during the inspection cycle. Some shall be inspected more often. The following checklist is provided to aid in determining the inspection frequency.

PART IV - SELECTING SCHEDULED INSPECTION INTERVAL:

- A. What failure rate is anticipated? ☐ HIGH ☐ MODERATE ☐ LOW
- B. The time from onset of deterioration to failure is expected to be: ☐ SHORT ☐ MODERATE ☐ LONG
- C. How often will failure or onset of deterioration be detected by ground or flight crew during normal duties? ☐ ALMOST NEVER ☐ SOMETIMES ☐ ALMOST ALWAYS
- D. Will undetected failure significantly affect flight safety or mission reliability? ☐ YES ☐ SOMETIMES ☐ NO
- E. Will failure cause secondary damage which will be more costly in terms of material or maintenance time? ☐ ALMOST ALWAYS ☐ SOMETIMES ☐ ALMOST NEVER
- F. The time required to inspect this component will be: ☐ SHORT ☐ MODERATE ☐ LONG
- G. The anticipated skill required of the inspecting personnel is: ☐ LOW ☐ MODERATE ☐ HIGH
- H. The equipment/facilities required to accomplish the inspection being considered are: ☐ SIMPLE ☐ MODERATELY COMPLEX ☐ COMPLEX

The blocks provided for entering check marks in reply to the above questions form three columns. If, after answering all questions, column one contains the most checks, the component

PART IV - SELECTING SCHEDULED INSPECTION INTERVAL (Con't):

is a likely candidate for the shortest inspection interval within the inspection cycle. The decision must be influenced, however, by the knowledge that the questions are listed in descending order of importance. In cases where most checks appear in the third column, the longest inspection interval provided by the inspection scheme is probably desirable. The majority of checks in the second column indicates that an intermediate interval should be considered.

After all components are grouped with respect to optimum inspection interval, each group, except the shortest interval group, should then be divided and phased to produce uniform manpower and equipment use requirements at every inspection. The considerations listed in Part V of this checklist should be made during the process of phasing (after design is completed and all scheduling decisions have been made).

PART V - DIVIDING AND PHASING THE INTERVAL GROUPS (AFTER
DESIGN AND SCHEDULING IS COMPLETE.):

- A. As phased, are the manpower requirements uniform at each inspection point within the inspection cycle? ☐YES ☐NO
- B. Has adequate consideration been given to phasing components as a function of their location within the helicopter? ☐YES ☐NO
- C. Have components which require the same type of inspection been grouped together so that personnel with special skills are required at the minimum number of inspection points within the cycle? ☐YES ☐NO
- D. Have components been grouped so that all those requiring special inspection equipment are scheduled for the same inspection point insofar as is possible? ☐YES ☐NO

DESIGNER'S CHECKLIST

PART I - SCOPE OF INSPECTION:

- A. It is anticipated that the component will be subjected to the following flight-readiness inspections:
- | | |
|--------------------------------|-------------------------------------|
| ☐ NONE | ☐ PREFLIGHT |
| ☐ DAILY | ☐ POSTFLIGHT |
- B. The anticipated scheduled inspection interval is:
- | | |
|-----------------------------------|-------------------------------|
| ☐ SHORT | ☐ LONG |
| ☐ MODERATE | |
- C. The anticipated methods of scheduled inspection are:
- ☐ BITE
 - ☐ BIM
 - ☐ SPECTROGRAPHIC OIL ANALYSIS
 - ☐ OPERATIONAL VISUAL CHECK
 - ☐ OPERATIONAL AUDIO CHECK
 - ☐ OPERATIONAL VIBRATORY CHECK
 - ☐ OPERATIONAL TEMP CHECK
 - ☐ FUNCTIONAL CHECK
 - ☐ STATIC VISUAL CHECK
 - ☐ MANUAL PLAY/CLEARANCE CHECK
 - ☐ PRECISION DIMENSIONAL CHECK
 - ☐ TORQUE CHECK
 - ☐ TENSION CHECK
 - ☐ SPRING RATE TEST
 - ☐ VACUUM CHECK
 - ☐ PRESSURE TEST
 - ☐ FLOW RATE CHECK
 - ☐ OPTICAL MAGNIFICATION INSP
 - ☐ DYE PENETRANT INSPECTION
 - ☐ MAGNETIC PARTICLE INSP
 - ☐ X-RAY INSPECTION
 - ☐ ELEC/AVIONIC CHECK (COMMON)
 - ☐ ELEC/AVIONIC CHECK (SPECIAL)
 - ☐ TAP TEST
 - ☐ FRICTION CHECK
 - ☐ ALIGNMENT CHECK
 - ☐ TIME CHECK

PART II - DESIGN CONSIDERATIONS:

- A. Will the component be accessible for inspection without removal of major structural panels and without disturbing other components? ☐YES ☐NO
- B. Can incorporation of an integral but simple inspection aid significantly improve inspection confidence or reduce inspection time? ☐YES ☐NO
- C. If the anticipated method of inspection requires attachment of inspection devices to the component, have adequate provisions for this been incorporated in the component or its system? ☐YES ☐NO
- D. Have adequate clearances been provided for hands, hand tools, etc., during the process of securing inspection devices to the component? ☐YES ☐NO
- E. Have inspection device attachment provisions been designed for rapid and easy use without necessitating subsequent servicing or adjustment of component or system? ☐YES ☐NO
- F. Has adequate consideration been given to locating the component in proximity to others that will use the same inspection devices? ☐YES ☐NO
- G. Insofar as is possible, is the component located or oriented in a manner that will permit inspecting personnel to assume a comfortable position during the inspection process? ☐YES ☐NO

PART II - DESIGN CONSIDERATIONS (Con't)

- H. Has adequate consideration been given to locating the component in proximity to others that will have the same inspection interval (time between inspection)? ☐YES ☐NO
- I. Have precautions been taken in design of the component to reduce the possibility of maintenance/inspection-induced failures? ☐YES ☐NO

LIMITATIONS TO THE ANALYSIS

The data bank available during the study and the level of manpower which could be employed was sufficient to reach substantive conclusions and accomplish all of the study objectives. There are, however, areas within the analysis which could have been given more intensive scrutiny had additional data and time been available.

The impact of inspection/repair-induced failures and the higher failure rate of newly installed components was not considered in the modeling due to absence of data differentiating these from other failures. For the long inspection intervals considered, which are clearly advantageous, the effect on the analysis of averaging this type of failure in with the normal type failures was minor. Consideration of these factors would have affected the shape of the curves of Figure 13 only for intervals less than those plotted and thus would not have changed the concept selection. However, the importance of knowledge of the true impact of this problem upon the maintenance system should not be negated, and a study of larger scope would certainly deepen the analysis in this area.

In the area of failure onset phenomenon (T_{OS}), average values were utilized in the modeling instead of a distribution around that average. This factor would not change the study result due to the long operating times considered and the fact that comparative results between different inspection concepts were the basis for the selection. But the ability to detect the onset of failure is a major reason for scheduling inspection, and study of failure onset phenomena deserves more substantial treatment than could be given here. Analysis of T_{OS} distributions would be of importance in modeling to determine the optimum component inspection mix for a specific existing aircraft. In that case, failure history records at the work unit code level would allow calculation of T_{OS} distribution at the component level. Including these distributions in the modeling would help determine the inspection schedule which would achieve maximum availability and reliability.

In addition, it should be noted that the helicopter inspection model developed as part of the study effort is a powerful tool which provides results beyond those required to complete the study tasks. Appendix X provides model option A and B outputs for the recommended inspection scheme as an example of this

capability. Note that rates of significant events related to inspection and maintenance are printed out on a component, subsystem, and system basis and that scheduled inspection and repair man-hour summaries are provided by MOS. Deeper analysis of data of this type which was beyond the allotted study resources could provide valuable information related to problem areas in reliability, maintainability and scheduled inspection.

CONCLUSIONS

The following pertinent conclusions may be drawn from the analyses and results of the study:

1. Proper scheduling of individual component inspections based upon failure and failure detection historical data will allow present inspection interval and cycle times to be increased. This will provide increased maintenance efficiency and maintenance cost savings with little reduction in mission reliability.
2. If one standard preventive maintenance inspection scheme is to be applied to all Army helicopter types regardless of unit size, assigned mission, or geographical location, phased inspection with 100-hour interval and 800-hour cycle times is the most effective inspection system. Scheduling of component inspections for each aircraft type within that system should be determined through analysis of individual component inspection requirements.
3. The failure onset (T_{OS}) theory developed in this study is a viable concept for comparison of the effectiveness of inspection schemes.
4. Modification of Army helicopter inspection desired characteristics is indicated by the analysis results.
5. Imposing design for inspection guidelines as part of the design requirement for future aircraft can result in improvement in the inspection function and in the maintenance system.

RECOMMENDATIONS

It is recommended that:

1. A field test of the inspection scheme selected in this study be conducted on an existing helicopter type in an Army unit or units by regular Army personnel in the normal operational environment as a first step in implementing the selected inspection concept. Prior to this, an investigation of the specific components of the selected aircraft type should be made relative to checklist scheduling with emphasis on flight safety items and T_{OS} (failure onset detectability) to optimize expected aircraft availability and mission reliability. A checklist based upon this investigation should be used in the field test.
2. The inspection scheme to be used on future aircraft be imposed as part of the design requirements, and that aircraft designers be required to substantiate their ability to comply.
3. A requirement for completion of a design for inspection checklist at the component level be imposed upon the aircraft designer, and the list be kept current throughout the design phase.
4. Future study related to aircraft inspection be considered in the following areas:
 - a. Establishing symptoms for actual component failure modes and improved inspection techniques for detecting these symptoms.
 - b. Investigation of design approaches for improved helicopter inspection.
 - c. Further investigations and refinement of the failure onset theory developed in this study.
 - d. Further application of the mathematical model developed in this study to make full use of its capability to define and analyze problems at the component level.

APPENDIX I

INSPECTION MODELING TECHNIQUE DESCRIPTION

The inspection analysis model performs two basic levels of computational operations. The first level integrates the inspection parameters and utilization factors with the configuration data bank and calculates expected values for failures, preventive repairs, maintenance man-hours, and aborts for each component over each individual scheduled inspection interval. The second level of computations operates on these values and calculates the figure of merit for each inspection scheme. Higher figure of merit is the indicator of advantage of one scheme over another. Figure of merit is discussed in the report section describing the development of the inspection concept.

This Appendix describes the theory, assumptions, and computations of the first level of model operations.

MODEL THEORY AND ASSUMPTIONS

In order to evaluate the impact of variations in inspection interval on component failure, it is necessary to make a number of assumptions. To be able to calculate the effect of changing interval times, it is essential that the failure data be available in quantitative form. However, field data available for this program is somewhat unreliable and in insufficient detail to allow rigorous analysis of failure behavior. It therefore becomes necessary to make a number of simplifying assumptions in order to construct a model which approximates actual behavior.

The following general failure categories exist in practice.

1. Components will wear out with the probability of failure increasing with increasing hours of operation. Any component can fail in two ways: either the failure is sudden with no prior detectable indications that it is about to occur, or the failure is progressive in such a way that the onset of failure is detectable prior to its occurrence.

Inspection procedures can do nothing to minimize wearout failure which occurs without detectable signs of impending failure. The proper course of action in such cases is to either redesign for longer life or schedule preventative replacement before the probability of failure has exceeded acceptable limits.

On the other hand, inspection procedures can eliminate failures if the onset of failure is detectable at the time of inspection.

2. Random failures occur during the useful life of a component, and they can be simply described in terms of a constant failure rate which is the reciprocal of the mean time between failures.

Here again these failures may occur suddenly without any detectable warning signs, or they may be characterized by a wearout behavior which enables the presence of impending failure to be detected at the time of inspection.

Inspection will do nothing to prevent sudden random failures where the onset is undetectable by present inspection techniques; if these failures are critical, redesign or design modification is the only solution.

This study is based upon the four basic assumptions pertaining to component failures which are listed below:

1. Start of failure is random. All components are assumed to have a random rate of entering a detectably deteriorated state, λ .
2. Given that a component has entered the deteriorated state, there is an average time interval, T_{OS} , between the time when the impending failure is first detectable and the time at which failure occurs (for sudden or undetectable failures $T_{OS} = 0$).
3. If a component is found in a detectably deteriorated state during a scheduled inspection (flight-readiness inspections not included), a preventive repair will be made at that time.
4. If a component failure occurs between inspections, the component will be replaced at that time.

The basic model inputs for each component consist of the random rate of entering the detectably deteriorated state, λ , and the average time interval, T_{OS} , between the time when the onset of failure is first detectable and the time at which failure occurs.

For random failures with undetectable onset of failure, the probability of a component failure, $Q_F(t)$, in the time interval t is given by

$$Q_F(t) = 1 - e^{-\lambda t} \quad (1)$$

In the case of random failures where the onset of failure is detectable, the probability of a component entering the deteriorated state, $Q_D(t)$, in the time interval t is given by

$$Q_D(t) = 1 - e^{-\lambda t} \quad (2)$$

where $Q_F(t)$ is assumed to be

$$Q_F(t) = Q_D(t - T_{os}) \text{ for } t \geq T_{os} \quad (3)$$

Thus, given N components undergoing random failure with the onset of failure being detectable, the total number of components, $D(t)$, having entered the deteriorated state at time t is given by

$$D(t) = N (1 - e^{-\lambda t}) \quad (4)$$

Similarly, the total number of components, $F(t)$, having failed at time t is given by

$$F(t) = N (1 - e^{-\lambda (t - T_{os})}) \text{ for } t \geq T_{os} \quad (5)$$

This mathematical representation must be modified for use in the helicopter inspection analysis model because the equations above represent the probabilities for the continual deterioration and failure of one set of N components. For helicopter maintenance procedures, however, it has been assumed that failure of a component between inspection times results in the replacement of that component with a component exhibiting no detectable onset of failure. This changes the number of

good components available for deterioration and failure and leads to the mathematical analysis described below.

The assumption has been made that a component fails at an average time T_{os} after the onset of failure has become detectable. It has also been assumed that any components with the onset of failure detectable at the time of inspection are replaced with good components at that time. The meaning of the functions used in this analysis are defined below.

$G(t)$ The number of components that are good at any time t .

$D(t)$ The total number of components which have entered the detectably deteriorated state by the time t .

$F(t)$ The total number of components which have failed by the time t .

$DR(t)$ The rate at which the components are entering the detectably deteriorated state at time t .

$FR(t)$ The rate at which the components are failing at time t .

All components are assumed to be good at time $t = 0$, and N is the number of components of the type being considered.

For the case of those failures where the failure onset is detectable at the time of inspection, the computation of failure probability has been modified to account for the high probability that failure will occur immediately after inspection. If there is no detectable deterioration of the component at time $t = 0$, then the probability of its failing is assumed to be zero for the time interval T_{os} after a scheduled inspection. The following equations can therefore be defined.

For $0 \leq t \leq T_{os}$,

$$G(t) = Ne^{-\lambda t} \quad (6)$$

$$D(t) = N (1 - e^{-\lambda t}) \quad (7)$$

$$DR(t) = N\lambda e^{-\lambda t} \quad (8)$$

$$F(t) = 0 \quad (9)$$

$$FR(t) = 0 \quad (10)$$

Taking the derivative of equation (7) with respect to t gives

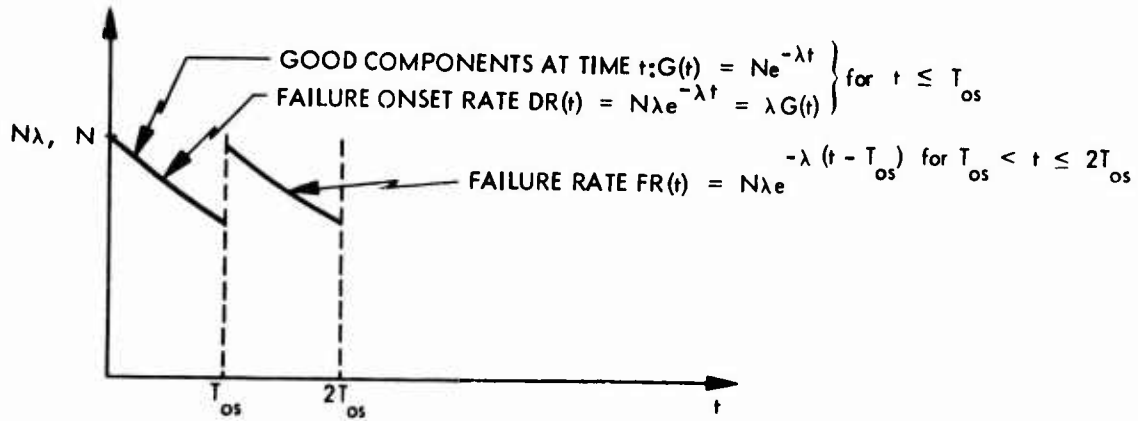
$$\frac{dD(t)}{dt} = DR(t) = N\lambda e^{-\lambda t} \quad \text{for } 0 \leq t \leq T_{os} \quad (11)$$

From the assumptions made of failure times, the failure rate function, $FR(t)$, is equal to the deterioration rate function at the time $(t - T_{os})$.

Thus for $T_{os} < t \leq 2T_{os}$,

$$FR(t) = N\lambda e^{-\lambda(t - T_{os})} \quad (12)$$

These functions as defined within the given time limits are shown below.



If a part fails, it is replaced by a good component. Therefore, over all values of time t ,

$$G(t) = N - D(t) + F(t) \quad (13)$$

where N = total number of components under study (all good at $t = 0$).

Equation (13) can be stated in words as the number of good components at any time t is equal to the initial number of good components minus all components which have started to deteriorate plus all components which have completed deterioration, failed, and have been replaced with good components. $D(t)$ and $F(t)$ can also be defined for all values of time by the following equations:

$$D(t) = \int_0^t DR(t) dt \quad (14)$$

$$F(t) = \int_0^t FR(t) dt \quad (15)$$

or for $t \geq T_{os}$,

$$F(t) = \int_0^{t-T_{os}} DR(t) dt \quad (16)$$

Thus, combining Equations (13), (14), and (16) for $t \geq T_{os}$,

$$G(t) = N - \int_0^t DR(t) dt + \int_0^{t-T_{os}} DR(t) dt$$

or

$$G(t) = N - \int_{t-T_{os}}^t DR(t) dt \quad (17)$$

The characteristics of a random distribution help to further define $DR(t)$. At any time t , the probability of a component's starting to fail is directly proportional to both the number of good components available to start failing and the rate of entering the detectably deteriorated state. Thus,

$$DR(t) = \lambda G(t) \quad (18)$$

A simple example helps to illustrate this relationship. For the case of no replacements when failures occur equations (6) and (8) apply.

$$G(t) = N e^{-\lambda t}$$

$$DR(t) = N\lambda e^{-\lambda t}$$

or

$$DR(t) = \lambda G(t)$$

Thus, equations (17) and (18) lead to the integral equation for $G(t)$ for $t \geq T_{os}$:

$$G(t) = N - \int_{t-T_{os}}^t \lambda G(t) dt \quad (19)$$

A summary of the resultant equations is given below:

For $0 \leq t \leq T_{os}$,

$$G(t) = N e^{-\lambda t}$$

$$D(t) = N (1 - e^{-\lambda t})$$

$$F(t) = 0$$

For $t \geq T_{os}$,

$$G(t) = N - \int_{t-T_{os}}^t \lambda G(t) dt$$

$$D(t) = \int_0^t \lambda G(t) dt \quad (20)$$

$$F(t) = \int_0^{t-T_{os}} \lambda G(t) dt \quad (21)$$

where the preventive repairs at time t are given by the equation below.

$$PR(t) = N - G(t) \text{ or } PR(t) = D(t) - F(t) \quad (22)$$

In order to use the equations for $t \geq T_{os}$ in a computerized model, it is desirable to have an analytical solution to these equations. Solving equation (19) for $G(t)$ for $T_{os} \leq t \leq 2T_{os}$,

$$G(t) = N (\lambda(t - T_{os}) e^{-\lambda(t - T_{os})} + e^{-\lambda t}) \quad (23)$$

For $t > 2T_{os}$, $G(t)$ may be approximated by a constant value, K_{ss} .

An analytic solution for the function

$$G(t) = N - \int_{t-T_{os}}^t \lambda G(t) dt \quad (24)$$

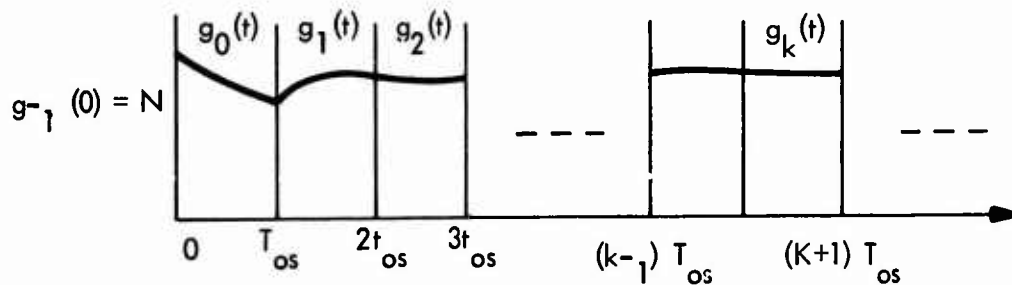
may be obtained for a range of time, t , such that $nT_{os} \leq t \leq (n+1)T_{os}$ for $n \geq 1$. However, for the time period corresponding to any given n , the function $G(t)$ is dependent upon its behavior during the time interval corresponding to $(n-1)$, where

$$G(t) = Ne^{-\lambda t} \text{ for } n = 0$$

The general solution to equation (24) is

$$g_k(t) = \sum_{h=0}^k \left[\frac{g_{h-1}(hT_{os})}{(k-h)!} (\lambda \tau_k)^{k-h} \right] e^{-\lambda \tau_k} \quad (25)$$

where $\tau_k = t - kT_{os}$



For $k = 0, 1$, and 2 , the above expression gives

$$g_0(t) = g_{-1}(0) e^{-\lambda \tau_0} = N e^{-\lambda t} \quad (26)$$

$$g_1(t) = g_0(T_{os}) e^{-\lambda \tau_1} + N \lambda \tau_1 e^{-\lambda \tau_1} \quad (27)$$

$$g_2(t) = g_1(2T_{os}) e^{-\lambda \tau_2} + g_0(T) \lambda \tau_2 e^{-\lambda \tau_2} + \frac{N \lambda^2}{2} \tau_2^2 e^{-\lambda \tau_2} \quad (28)$$

The function may be approximated by

$$G(t) = K_{ss} = \frac{N}{1 + \lambda T_{os}} \quad \text{for } t \geq 2T_{os} \quad (29)$$

Figure 23 is a plot of two sample cases of $G(t)$ given to help develop an understanding of the function $G(t)$. One is an extreme case where the MTBF is equal to T_{os} and the other is a more realistic case for T_{os} equal to 10% of the MTBF. Note that as $t \rightarrow \infty$, the function $G(t)$ approaches a steady state as previously stated.

The following equations which are used for failure analysis within the model are obtained by combining equations (20), (21), (22), (23), and (29) and integrating equations (20) and (21).

For $0 \leq t \leq T_{os}$,

$$PR(t) = N (1 - e^{-\lambda t}) \quad (30)$$

$$F(t) = 0 \quad (31)$$

For $T_{os} < t \leq 2T_{os}$,

$$PR(t) = N (1 - \lambda (t - T_{os}) e^{-\lambda (t - T_{os})} - e^{-\lambda t}) \quad (32)$$

$$F(t) = N (1 - e^{-\lambda (t - T_{os})}) \quad (33)$$

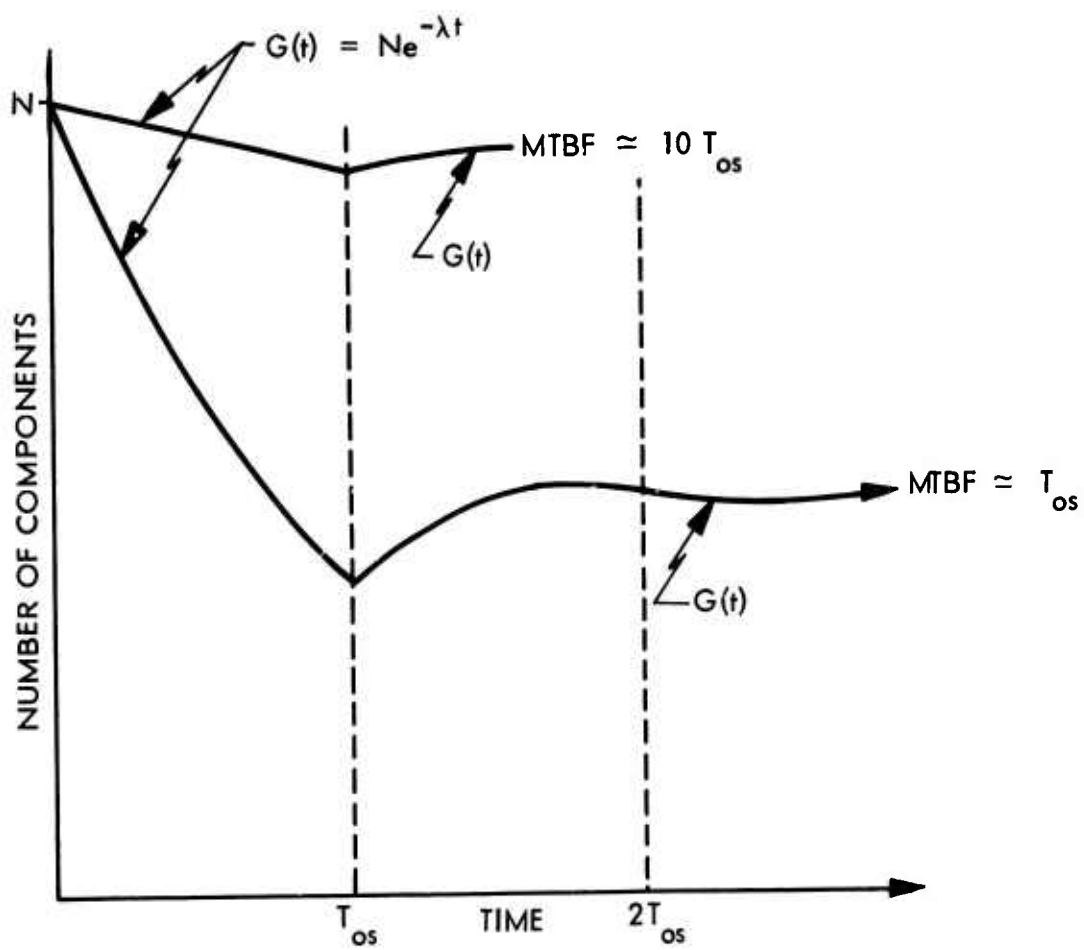


Figure 23. Sample $G(t)$ Cases.

For $2T_{os} < t \leq 3T_{os}$,

$$PR(t) = N - K_{ss} \quad (34)$$

$$F(t) = N(2 + (-\lambda(t - 2T_{os}) - 1)e^{-\lambda(t - 2T_{os})} - e^{-\lambda(t - T_{os})}) \quad (35)$$

For $t > 3T_{os}$,

$$PR(t) = N - K_{ss} \quad (36)$$

$$F(t) = N(2 + (-\lambda(T_{os}) - 1)e^{-\lambda T_{os}} - e^{-\lambda 2T_{os}}) + \lambda K_{ss} (t - 3T_{os}) \quad (37)$$

Thus, the expected number of component failures between inspection intervals or the expected number of component replacements at inspection intervals can be calculated if λ , T_{os} , and the inspection time interval t are known. Available historical data on many typical components is such that the percentage of failures that were found during scheduled inspections as well as the number of failures per a given time can be determined. Knowing the inspection time interval, t , and the number of components covered by the historical data, the number of components replaced per scheduled inspection can be calculated. By estimating the model input data (λ and T_{os}) for a component and running it through the appropriate part of the model, an iterative routine can be established to calculate the component variables λ and T_{os} for the master configuration file data bank. Once these values (λ and T_{os}) for a component have been set, they are used with the mathematical technique described by equations (30) to (37) for evaluating failure characteristics at different inspection intervals.

MODEL COMPUTATIONS

The model will compute data on failures and detectable failure onset in accordance with the inspection intervals used in the concept being analyzed. Summaries of the repair rates and maintenance man-hour rates are then computed and printed out. The

array of values generated by the model expresses the levels of reliability and maintenance demand which may be expected under the inspection scheme. The summary listing serves as an information record, supporting the figures of merit generated for the inspection scheme in the second-level modeling. The basic output calculations to be used to obtain the model output data and the reasoning behind their structural development are given in subsequent paragraphs. Many of the calculations are given in terms of or are related to the parameters listed below with their corresponding characters.

- i Component
- j Military Occupational Specialty - M.O.S.
- l Inspection Interval

The preventive and unscheduled repair rates per 10,000 flight-hours are based on the rates per inspection interval. These rates must be calculated on the component level because this is the level at which all the failure data is given. Within an inspection cycle, different components may have different inspection intervals, thus making the inspection interval time and the number of intervals per cycle dependent upon the component. The number of components of one type per aircraft model is also dependent upon the component type. Thus, these factors are all considered at the component level. The results of these constraints yield the following equations.

Preventive Repair Rates

$$RR_p = \sum_{i=1}^N N_c (N_i [i]) (N_t [i]) (PR [i])$$

where RR_p = Total repairs performed at scheduled inspections per 10,000 flt-hr

$PR [i] =$ Preventive repairs for a component of the i^{th} type per inspection interval

$N_i [i] =$ Number of inspection intervals per inspection cycle for the i^{th} component

$N_t [i] =$ Number of components of the i^{th} type on aircraft under analysis

$N_c =$ Number of inspection cycles per 10,000 flt-hr

$N_g =$ Number of generic component types

Unscheduled Repair Rate

$$RR_u = \sum_{i=1}^{N_g} N_c (N_i [i]) (N_t [i]) (UR [i])$$

where

$RR_u =$ Total unscheduled repairs per 10,000 flt-hr

$UR [i] =$ Unscheduled repairs for a component of the i^{th} type per inspection interval

$N_i [i] =$ Number of inspection intervals per inspection cycle for the i^{th} component

$N_t [i] =$ Number of components of the i^{th} type on aircraft under analysis

$N_c =$ Number of inspection cycles per 10,000 flt-hr

$N_g =$ Number of generic component types

To evaluate the choice of time interval per component, it is desirable to be able to see the various rates for each component. Thus, by performing the summation by components as the last operation in the above equations and in the equations to follow, all of the rates can be obtained for each component for evaluating the effect of inspection time interval variations at the component level.

The man-hour rates produced by the model are a measure of relative cost in inspection scheme evaluation, and the sum of man-hour expenditures of all the different types of M.O.S. will be used as a factor in the second-level modeling. However, the basic output calculation for each inspection scheme evaluated will provide a breakdown of man-hour requirements by M.O.S. This will provide visibility to the distribution of manpower requirements with regard to skill level and time.

The unscheduled aircraft repair is assumed to be less efficient than repairs performed at a scheduled inspection interval. Thus, an inefficiency factor is included in the unscheduled repair man-hour rate. This factor, K_1 , is assumed to be about 1.2, representing 20% more time expended on an unscheduled repair than on the same repair performed at a scheduled inspection interval.

Since all intervals and all cycles are assumed to be identical for each component, the following equations for the man-hour rates are given.

Preventive Repair Man-Hour Rate

$$MH_p = \sum_{i=1}^N N_c (N_i [i]) (N_t [i]) (MH[i,j]) (PR[i])$$

where

MH_p = Preventive repair man-hours per 10,000 flt-hr

$MH [i,j]$ = Man-hours to repair i^{th} component using a repair crew (1 or more men as required) of the j^{th} M.O.S.

$PR [i]$ = Preventive repairs for a component of the i^{th} type per inspection

$N_i [i]$ = Number of inspections per inspection cycle for the i^{th} component

$N_t [i]$ = Number of components of the i^{th} type on aircraft under analysis

N_c = Number of inspection cycles per 10,000 flt-hr

N_g = Number of generic component types

Unscheduled Repair Man-Hour Rate

$$MH_u = \sum_{i=1}^{N_g} N_c K_i (N_i [i]) (N_t [i]) (MH [i,j]) (UR [i])$$

where

MH_u = Unscheduled repair man-hours per 10,000 flt-hr

$MH [i,j]$ = Man-hours to repair i^{th} component using a repair crew (1 or more men as required) of the j^{th} M.O.S.

$UR [i]$ = Unscheduled repairs for a component of the i^{th} type between inspections

$N_i [i]$ = Number of inspections per inspection cycle for the i^{th} component

$N_t [i]$ = Number of components of the i^{th} type on aircraft under analysis

K_i = Unscheduled repair inefficiency factor

N_c = Number of inspection cycles per 10,000 flt-hr

N_g = Number of generic component types

Flight-Readiness Inspection Man-Hour Rate

$$MH_F = \sum_{i=1}^{N_g} N_c (N_i [i]) (N_t [i]) (N_f [i]) (EIT_F [i,j])$$

where

MH_F = Flight-readiness inspection man-hours per 10,000 flt-hr

$EIT_F [i,j]$ = Elapsed inspection time for flight-readiness inspection of the i^{th} type by crew member of the j^{th} M.O.S.

$N_f[i]$ = Number of flight-readiness inspections per inspection interval for a component of the i^{th} type. (If the i^{th} type component is not subject to a flight-readiness inspection $N_f[i] = 0$, for all other cases $N_f[i]$ is dependent upon the aircraft type usage and scheduled inspection intervals.)

$N_i[i]$ = Number of inspections per inspection cycle for the i^{th} component

$N_t[i]$ = Number of components of the i^{th} type on aircraft under analysis

N_c = Number of inspection cycles per 10,000 flt-hr

N_g = Number of generic component types

Scheduled Inspection Man-Hour Rate

$$MH_s = \sum_{i=1}^N N_c (N_i[i]) (N_t[i]) (EIT_s[i,j])$$

where

MH_s = Scheduled inspection man hours per 10,000 flt-hr

$EIT_s[i,j]$ = Elapsed inspection time for scheduled inspection of a component of the i^{th} type (equal to zero if component not subject to scheduled inspection) by a maintenance crew member of the j^{th} M.O.S.

$N_i[i]$ = Number of inspections per inspection cycle for the i^{th} component

$N_t[i]$ = Number of components of the i^{th} type on aircraft under analysis

N_c = Number of inspection cycles per 10,000 flt-hr

N_g = Number of generic component types

Repair or replacement of some of the component types is not generally a one-man job. Thus, another important figure related to a component is the average elapsed maintenance time (EMT) associated with a failure of that component. Using this figure, two more rates are calculated. Once again a preventive repair occurring at a scheduled inspection interval is assumed to be more efficient than an unscheduled repair. Thus, the inefficiency factor, K_i , is also included in the calculation of unscheduled elapsed maintenance times.

Preventive Repair Elapsed Maintenance Time Rate

$$EMT_p = \sum_{i=1}^{N_g} N_c (N_i[i]) (N_t[i]) (EMT[i,j]) (PR[i])$$

where

EMT_p = Preventive repair elapsed maintenance time per 10,000 flt-hr

$EMT[i,j]$ = Elapsed maintenance time to repair i^{th} component using a repair crew of the j^{th} M.O.S.

$PR[i]$ = Preventive repairs for a component of the i^{th} type per inspection

$N_i[i]$ = Number of inspections per inspection cycle for the i^{th} component

$N_t[i]$ = Number of components of the i^{th} type on aircraft under analysis

N_c = Number of inspection cycles per 10,000 flt-hr

N_g = Number of generic component types

Unscheduled Repair Elapsed Maintenance Time Rate

$$EMT_u = \sum_{i=1}^{N_g} N_c K_i (N_i[i]) (N_t[i]) (EMT[i,j]) (UR[i])$$

where

- EMT_u = Unscheduled repair elapsed maintenance time per 10,000 flt-hr
- $EMT[i,j]$ = Elapsed maintenance time to repair i^{th} component using a repair crew of the j^{th} M.O.S.
- $UR[i]$ = Unscheduled repairs for a component of the i^{th} type between inspections
- $N_i[i]$ = Number of inspections per inspection cycle for the i^{th} component
- $N_t[i]$ = Number of components of the i^{th} type on aircraft under analysis
- K_i = Unscheduled repair inefficiency factor
- N_c = Number of inspection cycles per 10,000 flt-hr
- N_g = Number of generic component types

At the same time that historical data is being processed to give the percentage of failures found during scheduled inspections (used for T_{OS} calculations), a complete distribution of the failures on a component by "when discovered" can be found. A breakdown of the failures into the "when discovered" classifications listed below is sufficient for the analysis used in the model.

<u>When Discovered</u>	<u>Percentage of Total Failures</u>
Preflight Abort	XX
In-Flight Abort	XX
Flight-Readiness Inspection	XX
Scheduled Inspection	XX
All Other	XX

There may be many modes of failure for a given component, each affecting the aircraft's performance differently, and many being found in different ways. Three data elements of the master configuration file which are taken from the above distribution in order to account for these varying effects are listed below:

1. Probability of abort given a component failure if component is not subject to flight-readiness inspection.
2. Probability of abort given a component failure if component is subject to flight-readiness inspection.
3. Percentage of all aborts occurring in-flight.

In the operation on the model, the probability of abort, PA, given a component failure is set to either (1) or (2) depending on whether or not the component being analyzed is included in a flight-readiness inspection. Using these component parameters, the following two rates are calculated.

Mission Abort Rate

$$AR_m = \sum_{i=1}^{N_g} N_c (N_i[i]) (N_t[i]) (UR[i]) (PA[i])$$

where AR_m = Total mission aborts per 10,000 flt-hr

$PA[i]$ = Probability of mission abort given a failure of a component of the i^{th} type

$UR[i]$ = Unscheduled repairs for a component of the i^{th} type per inspection interval

$N_i[i]$ = Number of inspection intervals per inspection cycle for the i^{th} component

$N_t[i]$ = Number of components of the i^{th} type on aircraft under analysis

N_c = Number of inspection cycles per 10,000 flt-hr

N_g = Number of generic component types

In-Flight Abort Rate

$$AR_i = AR_m (INFLT)$$

where

AR_i = Total in-flight aborts per 10,000 flt-hr

AR_m = Total mission aborts per 10,000 flt-hr

INFLT = Percentage of all mission aborts occurring in-flight

The increase of aircraft availability is one of the goals of this study. Thus, the downtime rates, upon which availability is dependent, must be calculated. The distribution of aircraft downtime throughout an inspection cycle is also important in evaluating the full effect of the different inspection schemes on availability. Since some items may be inspected at different intervals, the man-hours of labor required at different intervals may vary. Thus, the average downtime for each of the intervals is to be calculated as a function of required man-hours of labor and inspection crew size.

Several assumptions have been made as a basis for scheduled downtime calculations. The inspection crew size ($K_c [i]$ = number of men in inspection crew for the i^{th} scheduled inspection within an inspection cycle) has been set as an input for the model which can be varied to evaluate crew size variations. For the different aircraft types, a maximum efficient inspection crew size has been set at K_m as given below.

<u>Aircraft Type</u>	<u>K_m (men)</u>
CH-Heavy	5
CH-Medium	5
UH	3
AH	3
LOH	1

For crew sizes less than or equal to the appropriate K_m , all men are assumed to be contributing equally to the inspection effort. Each additional man in a crew larger than K_m is assumed to contribute only 75% of the effective man-hours contributed by the last additional man. Thus, if a 5-man crew inspected a UH for one hour, only 4.31 effective man-hours of work would be accomplished ($3 (1) + 0.75 (1) + 0.75 (0.75) (1) = 4.31$) at a cost of 5 man-hours for a downtime of one hour.

This would be considered as an effective inspection crew size ($K_e[l]$ = effective number of men contributing 100% to inspection tasks for the l^{th} scheduled inspection), $K_e[l]$, of 4.31 men. For $K_c[l] \leq K_m$,

$$K_c[l] = K_e[l]$$

This inefficiency function has been assumed for several reasons: too many men working in the same area will decrease the working efficiency of each man; too many men working on the same inspection will result in organizational inefficiencies; and when too many men are required for a job, the actual skill levels of the men available are apt to become lower. Additional man-hours required because of crew size inefficiencies will be added to the overall scheduled inspection man-hour rate.

It has also been assumed that when a deteriorated component is discovered during a scheduled inspection, the normal number of men required to repair or replace that component are supplied in addition to the inspection crew. Thus, there will be preventive repair work performed by additional men during the time of the scheduled inspection which has to be evaluated for the scheduled downtime calculation. Such preventive repair times will overlap other preventive repair times as well as the scheduled inspection time. This overlap is accounted for by the K_s and K_p factors given in some of the equations to follow.

Scheduled Downtime Rate

$$SDT = N_c \sum_{l=1}^{N_l} SDT[l]$$

where

$$SDT[l] = \frac{EIT_s[l]}{K_e[l]} + K_s K_p (EMT_p[l])$$

and

$$EIT_s[l] = \sum_{i=1}^{N_g} (N_t[i]) (EIT_s[i, l])$$

and

$$EMT_p[l] = \sum_{i=1}^{N_g} (N_t[i]) (EMT[i]) (PR[i, l])$$

where

SDT = Scheduled downtime per 10,000 flt-hr

SDT[l] = Scheduled downtime for the l^{th} inspection interval

$EIT_s[l]$ = Elapsed inspection time for the l^{th} scheduled inspection interval

$EIT_s[i, l]$ = Elapsed inspection time for a component of the i^{th} type for the l^{th} scheduled inspection interval (equal to zero if i^{th} type of component is not inspected at l^{th} interval)

$EMT_p[l]$ = Cumulative elapsed maintenance time for preventive repairs for the l^{th} inspection interval

$EMT[i]$ = Elapsed maintenance time for repair of a component of the i^{th} type since more than one man may be required to perform the maintenance action

$PR[i, l]$ = Preventive repairs for a component of the i^{th} type for the l^{th} inspection interval (equal to zero if components of the i^{th} type not inspected at the l^{th} inspection interval)

$N_t[i]$ = Number of components of the i^{th} type on aircraft under analysis

$K_e[l]$ = Effective inspection crew size for the l^{th} inspection interval

K_p = Factor for overlap of preventive repair times

K_s = Factor or overlap of preventive repair time with inspection time

N_c = Number of inspection cycles per 10,000 flt-hr

N_g = Number of generic component types

N_l = Number of inspection intervals per cycle

The average preventive repair crew size for each inspection interval, $K_R [l]$, which is required to obtain the given SDT will be given as an output from the model. This is to be done mainly for manpower planning purposes related to an inspection scheme.

Preventive Repair Crew Size

$$K_R [l] = \frac{MH_p [l]}{EMT_p [l]}$$

where

$K_R [l]$ = Average prevention repair crew size for the l^{th} inspection interval

$EMT_p [l]$ = Cumulative elapsed preventive repair maintenance time for the l^{th} inspection interval

$MH_p [l]$ = Preventive repair man-hours for the l^{th} inspection interval

The unscheduled aircraft downtime must also be evaluated for availability calculations. As in the unscheduled repair man-hour rate, the unscheduled repair inefficiency factor, K_i , is included. Similar to the scheduled downtime rate calculations, a factor allowing for the overlap of repair times, K_u , is also included. Since these repairs are assumed to have a random type distribution, only the overall rate per 10,000 flight-hours is calculated.

Unscheduled Downtime Rate

$$UDT = N_c \sum_{i=1}^{N_g} (K_i) (K_u) (N_i [i]) (N_t [i]) (EMT [i]) (UR [i])$$

where

UDT = Unscheduled downtime per 10,000 flt-hr

$EMT [i]$ = Elapsed maintenance time for repair of a component of the i^{th} type

- $UR[i]$ = Unscheduled repairs for a component of the i^{th} type between inspections
 $N_j[i]$ = Number of inspections per inspection cycle for the i^{th} component
 $N_t[i]$ = Number of components of the i^{th} type on aircraft under analysis
 K_i = Unscheduled repair inefficiency factor
 K_u = Factor for overlap of unscheduled repair times
 N_c = Number of inspection cycles per 10,000 flt-hr
 N_g = Number of generic component types

The summation of scheduled and unscheduled downtime rates yields the total downtime per 10,000 flight-hours, DT, of the aircraft. The following equation gives the availability of the aircraft such that the less time the aircraft is down for maintenance, the closer the availability factor is to 1.

Availability

$$A = 1 - \frac{DT}{T}$$

where

A = Availability

DT = Total downtime (scheduled and unscheduled) per 10,000 flt-hr

T = Calendar time for completion of 10,000 flt-hr (dependent on aircraft usage)

To allow for more insight into the factors contributing to availability, the two output parameters below are calculated.

Norm. - Scheduled

$$NS = \frac{SDT}{T}$$

where

NS = Availability due to scheduled downtime (not operational due to scheduled maintenance)

SDT = Scheduled downtime per 10,000 flt-hr

T = Calendar time for completion of 10,000 flt-hr (dependent on aircraft usage)

Norm - Unscheduled

$$NU = \frac{UDT}{T}$$

where

NU = Availability due to unscheduled downtime (not operational due to unscheduled maintenance)

UDT = Unscheduled downtime per 10,000 flt-hr

T = Calendar time for completion of 10,000 flt-hr (dependent on aircraft usage)

Two very important factors in evaluating an aircraft maintenance system are the resultant safety and operational effectiveness of the aircraft. The reliability figures below are given as an indication of these evaluation factors.

Flight Reliability

$$R_f = 1 - \frac{AR_i}{FLTS}$$

where

R_f = Flight reliability

AR_i = Total in-flight aborts per 10,000 flt-hr

FLTS = Total number of flights per 10,000 flt-hr (dependent on aircraft type usage)

Mission Reliability

$$R_m = 1 - \frac{AR_m}{FLTS}$$

where

R_m = Mission reliability

AR_m = Total mission aborts per 10,000 flt-hr

FLTS = Total number of flights per 10,000 flt-hr (dependent on aircraft type usage)

APPENDIX II
LIST OF DOCUMENTATION

The following documentation items and RAMMIT reports have been received for use in the study.

TECHNICAL MANUALS

OH-6A

2	TM55-1520-214-CL	Pilot's Checklist
2	-214-ESC	Equipment Serviceability Criteria
2	-214-10	Operator's Manual; Observation OH6A (HUGHES)
2	-214-20	Organizational Maintenance Manual, OH6A (HUGHES)
2	-214-20P	Organizational Maintenance Parts List
2	-214-20 PMD	Daily Inspection Checklist
2	-214-20-PMP	Periodic Inspection Checklist
2	-214-20 PMP	Periodic Inspection Checklist <u>UPDATE</u>
2	-214-34P	DS&GS Maintenance Repair Parts and Special Tools List, Observation OH6A (HUGHES)
2	-214-35	DS, GS, Depot Maintenance Manual, Observation OH6A (HUGHES)
1	-214-35P	DS, GS, Depot Parts List

UH1D/H

1	TM55-1520-210-ESC	Equipment Serviceability Criteria
2	-210-10	Operator's Manual UH-1D/H
2	-210-20-PMD	Daily Inspection Checklist
2	-210-20-PMI	Intermediate Inspection Checklist

TECHNICAL MANUALS - Continued

UH1D/H (Continued)

2	TM55-1520-210-20-PMP	Periodic Inspection Checklist
1	-210-20-P-1	Organizational Parts List
1	-210-20-P-2	Organizational Parts List
2	-210-34-P-1	DS&GS Maintenance Manual Repair Parts/Special Tools List, Utility Tactical Transport UH-1A, 1B, 1C, 1D, 1H (BELL)
2	-210-34-P-2	DS&GS Maintenance Manual Repair Parts/Special Tools List, Utility Tactical Transport UH-1A, 1B, 1C, 1D, 1H (BELL)
2	-210-34-P-3	DS&GS Maintenance Manual Repair Parts/Special Tools List, Utility Tactical Transport UH-1A, 1B, 1C, 1D, 1H (BELL)
2	-210-34-P-4	DS&GS Maintenance Manual Repair Parts/Special Tools List, Utility Tactical Transport UH-1A, 1B, 1C, 1D, 1H (BELL)
2	-210-35-1	DS, GS, Depot Maintenance Manual, UH-1D/H
2	-210-35-2	DS, GS, Depot Maintenance Manual, UH-1D/H
1	-210-20	Organizational Maintenance Manual, UH-1D/H

UH-1C

1	TM55-1520-220-10	Operator's Manual, UH-1C Helicopter
1	-220-20-PMD	Daily Inspection Checklist
1	-220-20-PMI	Intermediate Inspection Checklist
1	-220-20-PMP	Periodic Inspection Checklist

TECHNICAL MANUALS - Continued)

AH-1G

1	TM55-1520-221-CL	Pilot's Checklist
2	-221-ESC	Equipment Serviceability Criteria
2	-221-PMD	Preventive Maintenance Daily Inspection Checklist, AH-1G
2	-221-PMP	Preventive Maintenance Periodic Inspection Checklist, AH-1G
2	-221-PMI	Preventive Maintenance Intermedi- ate Inspection Checklist, AH-1G
3	-221-10	Operator's Manual, AH-1G
2	-221-20	Organizational Maintenance Manual, AH-1G
1	-221-20P	Organizational Parts List
2	-221-20-PMD	Daily Inspection Checklist
2	-221-20-PMP	Periodic Inspection Checklist
2	-221-20-PMI	Intermediate Inspection Checklist
2	-221-35	DS&GS, Depot Maintenance Manual, AH-1G
2	-221-35P-1	DS&GS, Depot Parts and Special Tools List: Attack AH1G (BELL) Flight Trainer TH-1G (BELL)
2	-221-35P-2	DS&GS, Depot Parts and Special Tools List: Attack AH1G (BELL) Flight Trainer TH-1G (BELL)
1	-221-35P-3	DS&G, Depot Parts and Special Tools List: Attack AH1G (BELL) Flight Trainer TH-1G (BELL)

TECHNICAL MANUALS - Continued

CH-47 A, B, C

1	TM55-1520-209-CL	Operator's and Crew Member's Checklist, CH-47A
1	-209-ESC	Equipment Serviceability Criteria
2	-209-10	Operator's Manual, CH-47A
1	-209-10CL	Pilot's Checklist
1	-209-20	Organizational Maintenance
2	-209-20-1	Organizational Maintenance Manual, CH-47A
2	-209-20-2	Organizational Maintenance Manual, CH-47A
2	-209-20-PMD	Daily Inspection Checklist
2	-209-20-PMI	Intermediate Inspection Checklist
2	-209-20-PMP	Periodic Inspection Checklist
2	-209-34-P-1	DS&GS Maintenance Repair Parts/ Special Tools List, Cargo Transport CH-47A,B, C (VERTOL)
2	-209-34-P-2	DS&GS Maintenance Repair Parts/ Special Tools List, Cargo Transport CH-47A, B, C (VERTOL)
2	-209-34-P-3	DS&GS Maintenance Repair Parts/ Special Tools List, Cargo Transport CH-47A, B, C (VERTOL)
1	-209-35	DS&GS Depot Maintenance Manual
2	-209-35-1	DS&GS Depot Maintenance Manual
2	-209-35-2	DS&GS Depot Maintenance Manual
2	-209-35-3	DS&GS Depot Maintenance Manual
2	-209-35-P-1	DS&GS and Depot Parts List
2	-209-35-P-2	DS&GS and Depot Parts List
1	-209-35-P-3	DS&GS and Depot Parts List

TECHNICAL MANUALS - Continued

CH-54A

2	TM55-1520-217-10-1	Operator's Manual
2	-217-20P-1	Organizational Parts List
2	-217-20P-2	Organizational Parts List
2	-217-20-PMD-1	Daily Inspection Checklist
2	-217-20-PMI-1	Intermediate Inspection Checklist
2	-217-20-PMP-1	Periodic Inspection Checklist
1	-217-20-PMD-2	Daily Inspection Checklist
1	-217-20-PMI-2	Intermediate Inspection Checklist
1	-217-20-PMP-2	Periodic Inspection Checklist
2	-217-20/1-2	Organizational Maintenance Manual, CH-54A
2	-217-34P-1	DS&GS Maintenance Repair Parts and Special Tools List, Cargo Transport CH-54A, B (SIKORSKY)
	-217-34P-2	DS&GS Maintenance Repair Parts and Special Tools List, Cargo Transport CH-54A, B (SIKORSKY)
2	-217-34P-3	DS&GS Maintenance Repair Parts and Special Tools List, Cargo Transport CH-54A, B (SIKORSKY)
2	-217-34P-4	DS&GS Maintenance Repair Parts and Special Tools List, Cargo Transport CH-54A, B (SIKORSKY)
2	-217-34P-5	DS&GS Maintenance Repair Parts and Special Tools List, Cargo Transport CH-54A, B (SIKORSKY)
1	-217-35P-1	DS&GS Parts List

TECHNICAL MANUALS - Continued

CH-54A (Continued)

1	TM55-1520-217-35P-2	DS&GS Parts List
1	-217-35P-3	DS&GS Parts List
2	-217-35/1-1	DS&GS Depot Maintenance Manual, CH-54A
2	-217-35/1-2	DS&GS Depot Maintenance Manual, CH-54A

OH-58A

1	TM55-1520-228-10	Operator's Manual, OH-58A
1	-228-20	Organizational Maintenance Manual
1	-228-20P	Organizational Parts List
1	-228-20-PMD	Daily Inspection Checklist
2	-228-34P	DS&GS Maintenance Repair Parts List, Observation OH-58A (BELL)
2	-228-35	DS&GS Maintenance Manual

TECHNICAL BULLETIN

TB-55-1500-301-25	"Army Aircraft Preventive Maintenance Inspection System", 24 February 1970
-------------------	--

USABARR - ACCIDENT REPORT DATA

Printouts: UH-1D; UH-1H; AH-1G; CH-54 A/B; CH-47 A/B/C; OH-6A

RAMMIT REPORTS

TALCMOR - Twenty-Five Maintenance Life Histories for each of the following: OH-6A, UH-1H, AH-1G, CH-47, A, B, C.

RIADS - One each AH-1G, CH-47A, CH-47B, CH-54A, UH-1H

MIRF - One each AH-1G, OH-6A, UH-1H

NAVY 3M MAINTENANCE RECORDS

3M tapes describing maintenance actions for a two-year period ending June 1971 for the following aircraft types:

AH-1
UH-1
CH-46
CH-53
TH-57

DATA ACQUISITION MEETING

In addition to formal documentation, interviews with Army aircraft specialists provided important study input data.

APPENDIX III AIRCRAFT CONFIGURATION FILE

AIRCRAFT CONFIGURATION FILE

PAGE 1

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-58
110000	AIRFRAME SYSTEM					
110100	FUSELAGE SUBSYSTEM					
110101	FRAME/STRINGER	3	3	9	7	1
110102	SKIN	2	2	9	5	1
110103	WINDSHIELD	3	2	3	5	2
110104	WINDOW	0	10	14	8	2
110105	ESCAPE HATCH	0	0	4	0	0
110106	HATCH JETTISON MECHANISM	0	0	2	0	0
110107	CARGO RAMP	0	0	1	0	0
110108	HORIZONTAL STABILIZER SECTION	2	2	0	1	1
110109	STEP/HAND HOLD	2	12	23	22	1
110110	ANTENNA/SUPPORT	7	13	7	5	3
110200	COCKPIT/CABIN DOOR SUBSYSTEM					
110201	SLIDING CABIN DOOR	0	2	1	0	0
110202	HINGED CABIN DOOR	2	2	0	3	4
110203	DOOR STRUT SET	2	0	0	0	0
110204	DOOR LATCH MECHANISM	2	4	1	3	4
110205	DOOR JETTISON MECHANISM	2	4	1	2	4
110300	ACCESS DOOR/COWL SUBSYSTEM					
110301	HINGED ACCESS DOOR/COWLING	19	8	20	7	6
110302	HINGED WORK PLATFORM	0	0	6	0	0
110303	DOOR/COWL/PLTFM LATCH MECHSM	30	16	39	11	8
110304	REMOVABLE FAIRING/COWLING	14	4	4	8	5
110305	REMOVABLE ACCESS PANEL	12	14	11	21	4
110400	COCKPIT/CABIN INTERIOR SUBSYS					
110401	INSTRUMENT CONSOLE	2	1	4	4	1
110402	EQUIPMENT RACK	0	0	2	0	0
110403	FLOOR PANEL	4	7	15	0	0
110404	SEAT TRACK	2	2	2	3	0
110500	ENG COMPARTMENT/TUNNEL SUBSYS					
110501	FIREWALL	2	2	0	2	3
110502	SCUPPER/DRAIN	0	2	13	0	1
110503	HANGER BRG SUPPT STRUCTURE	3	4	8	9	8
110600	FITTINGS/HARDPOINT SUBSYSTEM					
110601	ENGINE FITTING	6	6	8	4	5
110602	TRANSMISSION/GEARBOX FITTING	1	1	12	12	7
110603	TAIL BOOM ATTACH FITTING	4	4	0	4	4
110604	LANDING GEAR FITTING	4	4	10	6	4
110605	CARGO HOOK FITTING	0	1	2	14	0
110606	ARMAMENT FITTING	5	0	0	0	1

AIRCRAFT CONFIGURATION FILE

PAGE 2

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	QH-50
120000	FUSELAGE COMPARTMENTS SYSTEM					
120100	COCKPIT SUBSYSTEM					
120101	INSTRUMENT PANEL	2	1	4	4	1
120102	GLARE SHIELD	2	0	2	0	1
120103	OVERHEAD PANEL	0	1	2	2	1
120104	PILOT/COPILOT SEAT/CUSHION	2	2	2	3	2
120105	SEAT ADJUSTMENT MECHANISM	1	2	2	2	0
120106	INERTIA REEL	2	2	2	3	2
120107	SHOULDER HARNESS/LAP BELT	2	4	2	3	2
120108	ARMOR PLATE SET	3	2	8	3	3
120109	ARMR PLT QUICK RELEASE MECHNSM	0	2	0	3	2
120110	RELIEF TUBE	0	0	3	1	0
120111	MAP CASE	1	1	0	1	1
120112	SPARE LAMP STORAGE BOX	1	1	2	0	0
120200	CABIN SUBSYSTEM					
120201	PASSENGER SEAT	0	11	33	1	2
120202	LAP BELT	0	11	33	1	2
120203	INSULATION BLANKET PANEL	0	5	8	6	2
120204	BLOCK & TACKLE ASSY	0	0	1	0	0
120300	RAMP ACTUATE/CONTROL SUBSYS					
120301	RAMP CONTROL PANEL	0	0	1	0	0
120302	RAMP ACTUATE CYLINDER & LOCK	0	0	2	0	0
120400	HATCH DOOR ACTUATION SUBSYS					
120401	HATCH DOOR ACTUATING CYLINDER	0	0	1	0	0
120402	DOOR LATCH ACTUATING CYLINDER	0	0	1	0	0

AIRCRAFT CONFIGURATION FILE

PAGE 3

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	CH-58
130000	LANDING GEAR SYSTEM					
130100	MLG SKID TYPE SUBSYSTEM					
130101	SKID TUBE	2	2	0	0	2
130102	SKID TUBE SHOE	2	2	0	0	4
130103	CROSS TUBE	2	2	0	0	2
130104	CROSS TUBE SUPPORT	4	4	0	0	4
130105	STRUT FAIRING	4	0	0	0	0
130200	MLG OLEO TYPE SUBSYSTEM					
130201	SHOCK STRUT	0	0	4	3	0
130202	DRAG STRUT	0	0	0	1	0
130203	SCISSORS ASSEMBLY	0	0	4	3	0
130204	SHIMMY DAMPER ASSEMBLY	0	0	0	1	0
130205	WHEEL LOCK	0	0	2	1	0
130207	WHEEL & TIRE ASSEMBLY	0	0	6	3	0
130300	MLG BRAKE SUBSYSTEM					
130301	POWER BRAKE MASTER CYLINDER	0	0	2	2	0
130302	BRAKE ASSEMBLY	0	0	8	2	0
130303	PARKING BRAKE CONTROL	0	0	1	1	0
130304	PARKING BRAKE CABLE	0	0	1	1	0
130305	PARKING BRAKE LINKAGE/SPRING	0	0	1	1	0
130306	PARKING BRAKE VALVE	0	0	1	1	0
130400	POWER STEERING SUBSYSTEM					
130401	RHEOSTAT	0	0	1	0	0
130402	ELECTRICAL HARNESS	0	0	1	0	0
130403	POWER STEERING HYD UNIT	0	0	1	0	0
130500	TAIL SKID SUBSYSTEM					
130501	TAIL SKID SHOCK STRUT	0	0	0	1	0
130502	TAIL SKID TUBE	1	1	0	1	1
130503	TAIL SKID ACTUATOR	0	0	0	1	0

AIRCRAFT CONFIGURATION FILE

PAGE 4

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-58
140000	FLIGHT CONTROLS SYSTEM					
140100	COLLECTIVE PITCH CNTLS SUBSYS					
140101	COLLECTIVE STICK ASSEMBLY	2	2	2	3	2
140102	FRICTION BRAKE	1	2	2	2	1
140103	TORQUE TUBE	0	1	0	2	1
140104	PUSH-PULL ROD	4	3	16	16	3
140105	CRANK/LEVER/ARM, ETC	4	3	16	16	4
140106	MAGNETIC BRAKE	0	0	1	0	0
140107	DAMPER ASSEMBLY	0	0	3	3	0
140108	ENGINE DROOP ELIMINATOR UNIT	0	0	1	1	0
140109	BOOT/SEAL	2	3	2	5	2
140200	CYCLIC CONTROLS SUBSYSTEM					
140201	CYCLIC CONTROL STICK	2	2	2	3	2
140202	STICK TRIM ACTUATOR	0	0	1	3	0
140203	LONGITUDINAL STICK POS INDCATR	0	0	2	3	0
140204	TORQUE TUBE	1	1	0	0	1
140205	PUSH-PULL ROD	12	9	16	26	6
140206	CRANK/LEVER/ARM, ETC	8	3	16	31	7
140207	MAGNETIC BRAKE	2	2	1	0	2
140208	FORCE GRADIENT ASSEMBLY	2	2	3	3	2
140209	LONGTDNL CYCLIC TRIM SPD ACTR	0	0	2	1	0
140210	BOOT/SEAL	4	4	2	9	2
140300	CONTROLS MIXER SUBSYSTEM					
140301	CONTROLS MIXER ASSEMBLY	0	1	2	1	0
140400	MAST CONTROLS SUBSYSTEM					
140401	SWASHPLATE ASSEMBLY	1	1	0	0	1
140403	SCISSOR & SLEEVE ASSEMBLY	1	1	2	3	1
140404	LINK/ROD/LEVER, ETC	3	3	6	0	0
140405	SWASHPLATE BOOT/SEAL	2	2	2	1	1
140406	SWASHPLATE ASSY (HEAVY HELO)	0	0	2	1	0
140500	TAIL ROTOR CONTROLS SUBSYSTEM					
140501	PEDAL ASSEMBLY	4	4	0	4	4
140502	PEDAL ADJUSTMENT MECHANISM	2	2	0	4	2
140503	TAIL ROTOR TRIM ACTUATOR	0	0	0	4	0
140504	PUSH-PULL ROD	11	8	0	14	7
140505	CRANK/LEVER/ARM, ETC	11	10	0	15	9
140506	MAGNETIC BRAKE	1	1	0	0	0
140507	FORCE GRADIENT ASSEMBLY	1	1	0	0	0
140508	PULLEY	4	6	0	22	0
140509	QUADRANT	1	1	0	2	0
140510	CABLE ASSEMBLY/TURNBUCKLE	4	4	0	12	0
140511	FAIRLEAD	6	10	0	9	0
140512	CHAIN ASSEMBLY	1	1	0	0	0
140600	TAIL ROTOR PITCH CNTRL SUBSYS					

AIRCRAFT CONFIGURATION FILE

PAGE 5

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-58
140601	CROSS HEAD/STAR	1	1	0	1	1
140602	PITCH CHANGE LINK	2	2	0	4	2
140700	ELEVATOR CONTROLS SUBSYSTEM					
140701	PUSH-PULL ROD	6	6	0	0	0
140702	CRANK/LEVER/ARM, ETC	5	5	0	0	0
140703	TORQUE TUBE	1	1	0	0	0
140800	STABILITY AUGMENTATION SUBSYS					
140801	SAS GYRO	3	0	3	1	0
140802	SAS TRANSDUCER	4	0	7	2	0
140803	SAS CONTROL ACTUATOR	3	0	3	4	0

AIRCRAFT CONFIGURATION FILE

PAGE 6

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-58
150000	ROTOR SYSTEM					
150100	MAIN ROTOR SUBSYSTEM					
150101	M.R. BLADE ASSEMBLY	2	2	6	6	2
150102	DRAG BRACE	2	2	0	0	2
150103	DAMPER ASSEMBLY	0	0	6	6	0
150104	DAMPER RESERVOIR	0	0	0	1	0
150105	DAMPER HOSE	0	0	0	6	0
150106	PITCH VARYING HOUSING/ASSY	0	2	0	0	2
150107	TENSION-TORSION STRAP SET	2	2	6	0	2
150108	HUB ASSEMBLY	1	1	0	0	1
150109	HUB OIL RESERVOIR	0	4	20	0	4
150111	CENTRIFUGAL DROOP STOP ASSY	0	0	6	6	0
150112	ANTI-FLAP RESTRAINER	0	0	0	6	0
150113	PITCH HORN	2	2	0	6	2
150114	PITCH LINK	0	2	6	6	0
150115	K BAR	0	0	0	6	0
150116	CONTROL TUBE/ROD	2	4	0	6	2
150117	STABILIZER BAR ASSEMBLY	0	1	0	0	0
150118	STABILIZER DAMPER	0	2	0	0	0
150119	ROTARY WING HEAD FAIRING	0	0	0	1	0
150120	SAND DEFLECTOR	2	0	0	0	0
150121	BOOT/COVER	0	0	6	0	1
150122	PITCH VARY HSG/ASSY (HVV HELO)	0	0	6	6	0
150123	HUB ASSEMBLY (HEAVY HELO)	0	0	2	1	0
150200	TAIL ROTOR SUBSYSTEM					
150201	T.R. BLADE ASSEMBLY	2	2	0	4	2
150202	SLEEVE & SPINDLE ASSEMBLY	0	0	0	4	0
150203	HUB ASSEMBLY	1	1	0	1	1
150204	OIL RESERVOIR	0	0	0	1	0

AIRCRAFT CONFIGURATION FILE

PAGE 7

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-58
220000	TURBOSHAFT ENGINE SYSTEM					
220100	ENGINE ASSEMBLY SUBSYSTEM					
220101	ENGINE ASSEMBLY	1	1	2	2	1
220200	ENG REPLACBLE COMPNENTS SUBSYS					
220201	COMBUSTION CASE FUEL DRAIN VLV	0	0	0	2	1
220202	EXHAUST EJECTOR	1	0	0	0	2
220203	INSULATION BLANKET	1	1	0	0	0
220204	FIRESHIELD	1	1	2	0	1
220300	ENGINE FUEL SUBSYSTEM					
220301	FUEL CONTROL ASSEMBLY	1	1	2	2	1
220302	FUEL CONTROL STPAINER	1	1	2	4	3
220303	SERVO FILTER	1	1	2	0	0
220305	OVERSPEED GOVERNOR	1	1	2	2	1
220306	FUEL BOOST PUMP	1	1	2	4	1
220307	FUEL FILTER	1	1	2	6	1
220308	FUEL HEATER	0	0	0	2	0
220309	FLOW DIVIDER ASSEMBLY	0	0	2	2	0
220310	MAIN & STARTING FUEL MANIFOLD	1	1	2	2	0
220311	LINE/HOSE	3	3	6	14	1
220400	ENGINE LUBRICATION SUBSYSTEM					
220401	OIL TANK	1	1	2	2	0
220402	OIL STRAINER	2	2	4	2	0
220403	OIL FILTER	1	1	2	4	1
220404	LIQ-TO-LIQ OIL COOLER	1	1	2	2	0
220405	LINE/HOSE	5	5	10	6	4
220500	ENGINE ELECTRICAL SUBSYSTEM					
220501	TEST SWITCH	0	1	2	0	0
220502	ELECTRICAL HARNESS ASSEMBLY	0	1	2	0	0
220503	FIRE DETECTOR ELEMENT	0	2	4	0	0
220600	ENGINE IGNITION SUBSYSTEM					
220601	IGNITION EXCITER	1	1	2	2	1
220602	IGNITION HARNESS	1	1	2	2	1
220603	IGNITER PLUG	4	4	8	4	1
220700	BLEED AIR SUBSYSTEM					
220701	ANTI-ICING PROBE	1	1	2	2	0
220702	AIRBLEED ACTUATOR/STRAINER	1	1	2	4	1
220703	AIR VALVE ASSEMBLY	1	1	6	4	0
220704	LINE/HOSE	5	5	10	8	1

AIRCRAFT CONFIGURATION FILE

PAGE 8

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-58
240000	AUXILIARY POWER PLANT SYSTEM					
240100	APP ENGINE ASSEMBLY SUBSYSTEM					
240101	APP ENGINE ASSEMBLY	0	0	1	1	0
240200	APP REPLACEABLE COMPNT SUBSYS					
240201	AIR INLET SCREEN	0	0	1	1	0
240202	AIR INLET DUCT	0	0	1	0	0
240204	INSULATION BLANKET	0	0	1	0	0
240300	APP FUEL SUBSYSTEM					
240301	FUEL CONTROL ASSEMBLY	0	0	1	1	0
240302	ACCELERATION CONTROL ASSY	0	0	1	1	0
240303	RATED SPEED CONTROL ASSY	0	0	0	1	0
240304	FUEL BOOST PUMP	0	0	1	0	0
240305	FUEL FILTER	0	0	1	2	0
240306	PRESSURE SWITCH	0	0	1	1	0
240307	FUEL SHUTOFF VALVE	0	0	1	1	0
240308	LINE/HOSE	0	0	3	2	0
240400	APP LUBRICATION SUBSYSTEM					
240401	OIL RESERVOIR	0	0	1	0	0
240402	OIL FILTER	0	0	1	1	0
240403	OIL RELIEF VALVE	0	0	0	1	0
240404	LINE/HOSE	0	0	1	0	0
240500	APP CONTROL SUBSYSTEM					
240501	START SWITCH	0	0	1	1	0
240502	RELAY	0	0	1	1	0
240503	SPEED CONTROL SWITCH	0	0	0	1	0
240600	APP IGNITION SUBSYSTEM					
240601	IGNITION UNIT	0	0	1	1	0
240602	EXCITER	0	0	1	1	0
240603	IGNITION HARNESS	0	0	1	1	0
240604	IGNITER PLUG	0	0	1	1	0
240700	APP HYDRAULIC SUBSYSTEM					
240701	HYDRAULIC PUMP MOTOR	0	0	1	1	0
240702	HAND PUMP	0	0	0	1	0
240703	ACCUMULATOR	0	0	0	1	0
240704	SOLENOID VALVE	0	0	0	1	0
240705	LINE/HOSE	0	0	2	3	0
240800	APP INSTRUMENT SUBSYSTEM					
240801	THERMOCOUPLE	0	0	1	1	0
240802	HOURMETER	0	0	1	1	0
240900	APP ENGINE MOUNT SUBSYSTEM					
240901	TUBULAR MOUNT	0	0	1	3	0

AIRCRAFT CONFIGURATION FILE

PAGE 9

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-58
240902	RUBBER SHOCK MOUNT	0	0	0	1	0

AIRCRAFT CONFIGURATION FILE

PAGE 10

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-58
260000	DRIVES - TRANSMISSIONS SYSTEM					
260100	MAIN XMSN DRIVES SUBSYSTEM					
260101	ENGINE DRIVE SHAFT	1	1	0	0	1
260102	SHAFT COUPLING - THOMAS TYPE	0	0	12	2	0
260103	SHAFT COUPLING - ZURN TYPE	2	2	0	0	2
260104	SHAFT TO COUPLING CLAMP	2	2	0	0	2
260105	HANGER BEARING	0	0	6	0	0
260106	BEARING SHOCK MOUNT	0	0	8	0	0
260107	ENG/SYNC DRIVE SHFT (HVV HELO)	0	0	11	2	0
260200	TAIL ROTOR/AUX POWER DR SUBSYS					
260201	T.R./AUX POWER PLANT SHAFT	5	6	0	8	4
260202	SHAFT COUPLING - THOMAS TYPE	0	0	0	11	5
260203	SHAFT COUPLING - ZURN TYPE	10	12	0	0	0
260204	SHAFT TO COUPLING CLAMP	10	12	0	0	0
260205	HANGER BEARING	3	4	0	6	8
260206	VISCOUS DAMPER	0	0	0	6	0
260300	MAIN ROTOR DRIVE SUBSYSTEM					
260301	ROTOR DRIVE SHAFT & HSG ASSY	0	0	1	0	0
260302	RDS MAGNETIC CHIP DETECTOR	0	0	1	0	0
260400	FAN DRIVES SUBSYSTEM					
260401	FAN DRIVE SHAFT ASSEMBLY	0	0	1	0	0
260402	DRIVE BELT	0	0	0	2	0
260403	DRIVE BELT PULLEY	0	0	0	3	0
260500	SEPARATE CLUTCH UNIT SUBSYS					
260501	FREE WHEELING ASSY	0	0	0	0	1
260502	MAG CHIP DETECTOR	0	0	0	0	1
260503	AUX POWER PLANT SHAFT CLUTCH	0	0	0	1	0
260600	TRANSMISSION/GEARBOX SUBSYSTEM					
260601	ENGINE TRANSMISSION ASSY	0	0	2	0	0
260602	COMBINING TRANSMISSION ASSY	0	0	1	0	0
260603	MAIN ROTOR TRANSMISSION ASSY	1	1	0	0	1
260604	INTERMEDIATE GEARBOX ASSY	1	1	0	0	0
260605	TAIL ROTOR GEARBOX ASSY	1	1	0	0	1
260606	M.R. TRANSMISSION (HVV HELO)	0	0	2	1	0
260607	INT GEARBOX ASSY (HEAVY HELO)	0	0	0	1	0
260608	T.R. GEARBOX ASSY (HEAVY HELO)	0	0	0	1	0
260700	TRANSMISSION OIL SUBSYSTEM					
260701	OIL TANK	0	0	1	0	0
260702	OIL PUMP	0	0	3	0	1
260703	PRESSURE RELIEF VALVE	0	0	5	1	1
260704	OIL FILTER	2	2	6	1	1
260705	OIL COOLER	1	1	5	1	1
260706	THERMOSTATIC VALVE	1	1	5	1	1

AIRCRAFT CONFIGURATION FILE

PAGE 11

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-58
260707	LINE/HOSE	18	10	32	14	5
260800	MOUNTS SUBSYSTEM					
260801	PYLON MOUNT ASSEMBLY	1	1	0	0	0
260802	DAMPER	5	5	0	0	1
260803	LIFT LINK	1	1	0	0	0
260804	TUBULAR MOUNT ASSY	0	0	0	0	2
260900	ROTOR BRAKE SUBSYSTEM					
260901	BRAKE ASSEMBLY	0	0	0	1	0
260902	DISC	0	0	0	1	0
260903	LINE/HOSE	0	0	0	3	0
260904	SWITCH	0	0	0	1	0
260905	THROTTLE INTERLOCK	0	0	0	1	0
260906	SOLENOID	0	0	0	1	0
260907	WIRING	0	0	0	1	0

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-59
290000	POWER PLANT INSTALLATION SYS					
290100	ENG MOUNT/SUSPENSION SUBSYS					
290101	ENGINE MOUNT	3	3	8	16	3
290102	ENGINE MOUNT BEARING	2	2	0	0	0
290103	TORQUE SENSOR	0	0	0	2	0
290200	ENG AIR PARTICLE SEPARTR SUBSYS					
290201	PARTICLE SEPARATOR ASSY	1	1	0	0	1
290202	DOOR ACTUATOR	2	0	0	1	0
290203	CABLE ASSEMBLY	0	0	0	2	0
290204	PULLEY	0	0	0	4	0
290205	CONTROL LEVER	1	0	0	1	0
290206	PRESSURE SWITCH	1	0	0	0	0
290207	WIRING HARNESS	1	0	0	0	0
290208	PARTICLE SEP ASSY (HEAVY HELD)	0	0	0	1	0
290300	AIR INDUCTION SUBSYSTEM					
290301	INLET SCREEN	1	1	2	0	0
290302	INLET DUCT/PLENUM CHAMBER	1	1	0	0	0
290303	ALTERNATE AIR BYPASS DOOR	0	0	0	4	0
290400	AIRCRAFT EXHAUST SUBSYSTEM					
290401	TAILPIPE	1	1	0	2	0
290402	TAILPIPE ADAPTER/EXTENSION	1	0	0	0	0
290403	TAILPIPE CLAMP/COUPLING	1	1	0	0	0
290500	AIRCRAFT BLEED AIR SUBSYSTEM					
290501	BLEED AIR VALVE	1	1	0	0	0
290502	LINE/HOSE	13	4	2	0	5
290600	ENG ANTI-ICE/DE-ICE SUBSYSTEM					
290601	TEMPERATURE SENSOR	1	1	2	0	1
290602	ENGINE ANTI-ICE SWITCH	1	1	1	0	1
290603	SOLENOID VALVE	1	1	2	0	1
290604	WIRING HARNESS	1	1	1	0	1
290700	START SUBSYSTEM					
290701	STARTER SWITCH	1	1	2	2	1
290702	STARTER RELAY	1	1	0	0	1
290703	STARTER SOLENOID	1	1	2	2	1
290704	STARTER GENERATOR	1	1	0	0	1
290705	HYDRAULIC STARTER	0	0	2	2	0
290706	STARTER PRESSURE SWITCH	0	0	0	2	0
290707	ENG START HYD MANIFOLD VALVE	0	0	2	2	0
290800	THROTTLE/POWER LEVER SUBSYSTEM					
290801	CONTROL QUADRANT ASSY	0	0	2	1	0
290802	ENGINE CONDITION CONTROL BOX	0	0	1	0	0
290803	THROTTLE TWIST GRIP MECHANISM	2	2	0	0	2

AIRCRAFT CONFIGURATION FILE

PAGE 13

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-59
290804	ENGINE CONTROL LINKAGE	20	10	4	8	2
290805	CABLE/PULLEY	0	0	0	16	0
290806	CONTROL CABLE TENSIONER	0	0	0	4	0
290807	FLEX CABLE	0	0	0	2	1
290808	BOOT/SEAL	2	2	0	0	1
290809	WROOP COMPENSATOR CAM BOX	1	1	0	0	1
290810	TRIM SWITCH	2	2	3	4	1
290811	RPM CONTROL ACTUATOR	1	1	2	2	1
290812	ELECTRICAL HARNESS ASSY	1	1	0	0	0
290900	RPM WARNING SUBSYSTEM					
290901	ENGINE SPEED SENSITIVE SWITCH	1	1	0	2	1
290902	RPM WARNING LIMIT DETECTOR/BOX	1	1	0	2	1
290903	AUDIO WARNING UNIT	1	1	0	0	1
291000	AIRCRAFT LUBRICATION SUBSYSTEM					
291001	OIL TANK	0	0	0	0	1
291002	OIL COOLER BLOWER	1	1	1	1	1
291003	BLOWER DUCT	0	1	0	0	0
291004	OIL COOLER	1	1	0	0	1
291005	THERMUSTATIC BYPASS VALVE	1	1	0	0	1
291006	SOLENOID SHUT-OFF VALVE	1	1	0	0	1
291007	LINE/HOSE	19	22	0	0	12

AIRCRAFT CONFIGURATION FILE

PAGE 14

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-58
410000	AIR COND/SURFACE ICE CONTRL SYS					
410100	WINDSHIELD ANTI-ICE SUBSYSTEM					
410101	THERMOSTAT	0	0	1	0	0
410102	ANTI-ICE SWITCH	0	0	1	0	0
410103	HEAT RELAY	0	0	1	0	0
410104	HEATER ELEMENT	0	0	1	0	0

AIRCRAFT CONFIGURATION FILE

PAGE 15

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-58
420000	ELECTRICAL SYSTEM					
420100	AC POWER SUBSYSTEM					
420101	GENERATOR	0	0	2	2	0
420102	VOLTAGE REGULATOR	0	0	2	2	0
420103	RELAY	1	1	2	3	0
420104	CURRENT LIMITER	20	20	30	25	0
420105	RECEPTACLE	1	4	1	1	1
420106	TRANSFORMER	1	1	2	2	0
420107	TRANSFORMER RECTIFIER	1	1	2	2	0
420108	INVERTER	2	2	0	2	1
420109	CONTROL PANEL	2	2	2	1	1
420200	DC POWER SUPPLY SUBSYSTEM					
420201	GENERATOR	0	1	0	0	0
420202	VOLTAGE REGULATOR	1	2	0	0	1
420203	RELAY	1	2	4	3	5
420204	CURRENT LIMITER	75	75	15	25	34
420205	RECEPTACLE	1	1	1	2	1
420206	BATTERY	1	1	1	1	1
420207	BATTERY SUMP JAR	0	1	1	0	0
420300	ELECT PWR DISTRIBUTION SUBSYS					
420301	MASTER SWITCH CONTROL PANEL	1	1	1	1	1
420302	AIRCRAFT WIRING	1	1	1	1	1

AIRCRAFT CONFIGURATION FILE

PAGE 16

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-59
440000	LIGHTING SYSTEM					
440100	INTERIOR LIGHTS SUBSYSTEM					
440101	COCKPIT/CABIN LIGHT	2	4	9	3	1
440102	INSTRUMENT LIGHT	30	23	20	59	30
440103	CONTROL PANEL	1	1	2	2	1
440200	EXTERIOR LIGHTS SUBSYSTEM					
440201	LANDING LIGHT	1	1	0	0	2
440202	SEARCH LIGHT	1	1	2	2	0
440203	POSITION/FORMATION LIGHT	4	10	10	6	3
440204	ANTI-COLLISION LIGHT	1	1	2	2	2
440205	FLASHER UNIT	1	1	1	1	1
440206	CONTROL PANEL	1	1	0	1	1

AIRCRAFT CONFIGURATION FILE

PAGE 17

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-58
450000	HYDRAULIC POWER SYSTEM					
450100	HYDRAULIC SOURCE/DISTRIB SUBSYS					
450101	RESERVOIR	2	1	3	5	1
450102	HYDRAULIC PUMP	2	1	2	5	1
450103	HYDRAULIC HAND PUMP	0	0	1	0	0
450104	HYDRAULIC FILTER	4	2	8	8	2
450105	ACCUMULATOR	0	0	3	0	0
450106	SOLENOID VALVE	3	1	18	14	1
450107	RELIEF VALVE	0	0	4	13	0
450108	CHECK VALVE	20	10	10	6	1
450109	DRAIN VALVE	1	1	0	1	0
450110	HYDRAULIC MOTOR	0	0	2	0	0
450111	SWITCH	2	1	1	1	1
450112	HOSE/LINE	95	45	340	300	14
450200	HYDRAULIC BOOST SUBSYSTEM					
450201	ACCUMULATOR	2	0	0	0	0
450202	FLIGHT BOOST MANIFOLD	0	0	2	1	0
450203	CONTROL/PILOT VALVE	0	0	13	6	0
450204	CYLINDER	4	4	4	4	3
450206	IRREVERSIBLE VALVE	0	3	0	0	3
450207	LOCK-OUT VALVE	1	0	0	8	0
450208	PRESSURE REDUCER VALVE	0	0	4	4	0
450300	HYD PRESSURE INDICATING SUBSYS					
450301	PRESSURE SWITCH	0	0	0	7	0
450400	HYDRAULIC COOLING SUBSYSTEM					
450401	COOLER BLOWER	0	0	1	0	0
450402	BLOWER DUCT	0	0	1	0	0
450403	ELECTRO-HYDRAULIC MOTOR	0	0	1	0	0
450404	HYD FLUID COOLER	0	0	1	0	0
450405	THERMOSTAT	0	0	1	0	0

AIRCRAFT CONFIGURATION FILE

PAGE 10

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-58
460000	FUEL SYSTEM					
460100	FUEL SUPPLY/DISTRIB SUBSYSTEM					
460101	FUEL CELL	2	4	6	5	1
460102	SUMP PUMP	2	2	6	5	1
460103	FUEL FILTER	1	1	2	2	1
460104	ENGINE FUEL PURIFIER	0	0	2	0	0
460105	FUEL SELECTOR VALVE	0	0	1	2	0
460106	LINE/HOSE	25	40	20	25	3
460108	PRESSURE FUELING ADAPTER	0	0	0	1	0
460109	DEFUELING VALVE	1	2	1	1	0
460110	SUMP DRAIN	2	4	12	5	1
460200	AUX POWER PLANT FUEL SUBSYSTEM					
460201	FUEL PUMP	0	0	1	1	0
460202	SOLENOID VALVE	0	0	1	1	0
460203	FUEL SHUTOFF VALVE	0	0	0	1	0
460204	LINE/HOSE	0	0	4	5	0

AIRCRAFT CONFIGURATION FILE

PAGE 19

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-58
490000	MISCELLANEOUS UTILITIES SYSTEM					
490100	FIRE WARNING/DETECT SUBSYSTEM					
490101	FIRE DETECTION ELEMENT	0	0	0	16	0
490102	AMPLIFIER	0	0	0	4	0
490103	FIRE DETECTION CONTROL	0	0	0	4	0
490104	FIRE DETECTION TEST SWITCH	0	0	0	2	0
490200	FIRE EXTINGUISHING SUBSYSTEM					
490201	CONTROL SWITCH	0	0	1	0	0
490202	WIRING HARNESS	0	0	1	0	0
490203	NITROGEN FIRE BOTTLE	0	0	2	0	0
490204	LINE/HOSE	0	0	5	0	0
490300	WINDSHIELD WIPER SUBSYSTEM					
490301	WIPER CONTROL PANEL	0	1	1	1	0
490302	WIPER MOTOR	0	2	1	1	0
490303	RELAY	0	1	1	1	1
490304	WIRING HARNESS	0	1	0	1	0
490305	MECHANICAL LINKAGE	0	0	3	6	0
490306	BLADE ARM	0	2	2	2	0
490307	BLADE	0	2	2	2	0
490400	BLEED AIR RAIN REMOVAL SUBSYS					
490401	HEAT/RAIN REMOVAL VALVE	1	0	0	0	0
490402	LINE/HOSE	0	0	0	0	0
490500	WINDSHIELD WASHER SUBSYSTEM					
490501	WASHER SWITCH	0	0	0	1	0
490502	ELECTRIC PUMP	0	0	0	1	0
490503	RESERVOIR	0	0	0	1	0
490504	WASHER NOZZLES	0	0	0	2	0
490600	CARGO SUSPENSION SUBSYSTEM					
490601	CARGO SUSPENSION ASSEMBLY	0	1	1	5	0
490602	CARGO HOOK ASSEMBLY	0	1	1	5	0
490603	CARGO RELEASE PEDAL/CABLE	0	1	1	6	0
490604	RELEASE SOLENOID	0	1	1	2	0
490605	RELEASE RELAY	0	1	1	2	0
490606	WINCH CONTROL PANEL	0	0	2	3	0
490607	HYDRAULIC WINCH ASSEMBLY	0	0	1	1	0
490608	LOAD LEVELER CYLINDER	0	0	0	4	0
490609	WINCH PUMP	0	0	0	1	0
490610	RELIEF/SHUTOFF VALVE	0	0	2	5	0
490611	LINE/HOSE	0	0	4	15	0
490612	WINCH CABLE	0	0	1	1	0
490613	LIMIT SWITCH	0	0	2	0	0
490614	CONTROL PANEL	0	0	1	0	0
490615	GUILLOTINE	0	0	1	0	0
490700	COMBUSTION HEAT/DEFOG SUBSYS					

AIRCRAFT CONFIGURATION FILE

PAGE 20

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-58
490701	COMBUSTION HEATER ASSEMBLY	0	1	1	1	0
490702	AIR BLOWER	0	1	1	1	0
490703	VENTILATION/HEATER DUCT	0	5	12	12	0
490704	AIR PRESSURE SWITCH	0	1	1	1	0
490705	CABIN HEAT CONTROL PANEL	0	1	1	1	0
490706	HEATER FUEL LINE	0	10	5	4	0
490800	BLEED AIR HEAT/DEFOG SUBSYSTEM					
490801	CONTROL PANEL	2	1	0	0	1
490802	SOLENOID VALVE	1	1	0	0	1
490803	HEATER DUCT	25	25	0	0	24
490900	ELECTRIC CHIP DETECTOR SUBSYS					
490901	CHIP DETECTOR RELAY PANEL	1	0	1	1	0
490902	CHIP DETECTOR	4	4	7	3	4
491000	VISUAL AURAL DEBARK SUBSYSTEM					
491001	CONTROL PANEL	0	0	1	0	0
491002	WARNING HORN	0	0	1	0	0
491003	FLASHER UNIT	0	0	1	0	0

AIRCRAFT CONFIGURATION FILE

PAGE 21

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-5A
510000	INSTRUMENTS SYSTEM					
510100	FLIGHT INDICATORS SUBSYSTEM					
510101	AIRSPEED	2	2	2	2	1
510102	VERTICAL CLIMB	2	2	2	2	0
510103	BAROMETRIC ALTIMETER	2	2	2	2	1
510104	RATE OF CLIMB	2	2	2	2	0
510105	DIRECTIONAL GYRO	2	2	2	2	1
510106	TURN/SLIP	2	2	2	2	1
510107	ATTITUDE INDICATOR	2	2	2	2	1
510108	FLY DIRECTOR HOVER INDICATOR	0	0	0	3	0
510109	CRUISE GUIDE INDICATOR	1	1	1	0	0
510200	MISC FLIGHT INSTRUMENTS SUBSYS					
510201	AC VOLTMETER	2	1	1	2	0
510202	DC VOLTMETER	2	1	1	2	0
510203	DC LOADMETER	2	2	1	2	1
510204	CLOCK	2	1	2	1	1
510205	OUTSIDE AIR TEMPERATURE	1	1	1	2	1
510206	MASTER CAUTION LIGHT	2	1	2	1	1
510207	MASTER FIRE WARNING LIGHT	0	1	1	2	0
510208	CAUTION LIGHT	30	16	16	33	14
510300	PITOT STATIC SUBSYSTEM					
510301	PITOT HEAD	1	1	1	2	1
510302	STATIC HEAD	1	1	1	2	1
510303	PITOT HEAT SWITCH	1	1	1	2	1
510304	LINE/HOSE	15	15	12	15	7
510305	DRAIN VALVE	1	1	4	2	1
510400	NAVIGATIONAL INDICATORS SUBSYS					
510401	MAGNETIC COMPASS	2	1	2	1	1
510500	COMPASS SUBSYSTEM					
510501	RADIO MAGNETIC INDICATOR	2	2	1	1	1
510502	COMPASS TRANSMITTER	1	1	1	1	1
510503	AMPLIFIER	1	1	1	1	1
510504	DIRECTIONAL GYRO	1	1	1	2	1
510505	CONTROLLER	0	0	0	1	0
510600	ENGINE INSTRUMENTS SUBSYSTEM					
510601	DUAL TACH INDICATOR	2	1	2	2	1
510602	TACH GENERATOR	2	2	4	4	2
510603	OIL TEMPERATURE INDICATOR	2	1	2	2	1
510604	OIL TEMPERATURE BULB	1	1	2	2	1
510605	OIL PRESSURE INDICATOR	2	1	2	2	1
510606	OIL PRESS TRANSMITTER	1	1	2	2	1
510607	FUEL PRESSURE INDICATOR	2	1	2	2	0
510608	FUEL PRESSURE TRANSMITTER	1	1	2	2	0
510609	TORQUE INDICATOR	2	1	2	2	1

AIRCRAFT CONFIGURATION FILE

PAGE 22

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-58
510610	TORQUE SENSOR TRANSMITTER	1	1	2	0	0
510611	EXHAUST GAS TEMP INDICATOR	2	1	2	2	1
510612	EXHAUST THERMOCOUPLE ASSY	1	1	2	2	1
510700	DRIVE SYS INSTRUMENTS SUBSYS					
510701	OIL PRESSURE INDICATOR	2	1	5	1	1
510702	OIL PRESSURE TRANSMITTER	1	1	1	1	0
510703	OIL PRESSURE TRANSDUCER	0	0	5	0	0
510704	TACH INDICATOR	2	1	2	2	1
510705	TACH GENERATOR	1	1	1	1	1
510706	OIL TEMPERATURE INDICATOR	2	1	1	1	0
510707	TEMP INDICATOR SELECT SWITCH	0	0	1	0	0
510708	OIL TEMPERATURE BULB	1	1	5	1	0
510709	THERMOSWITCH	1	1	5	1	1
510800	FUEL QUANTITY SUBSYSTEM					
510801	FUEL QUANTITY INDICATOR	2	1	1	2	1
510802	SELECTOR SWITCH	0	0	1	0	0
510803	FUEL QUANTITY TRANSMITTER	2	4	6	2	1
510804	LOW LEVEL SWITCH	1	1	1	2	1
510900	HYDRAULIC INSTRUMENTS SUBSYS					
510901	BOOST PRESSURE INDICATOR	0	0	2	4	0
510902	UTILITY PRESSURE INDICATOR	0	0	1	4	0
510903	PRESSURE TRANSMITTER	2	1	3	4	0
511100	APP INSTRUMENTATION SUBSYSTEM					
511101	EGT INDICATOR	0	0	1	1	0
511102	TACHOMETER	0	0	1	1	0
511103	OIL PRESSURE INDICATOR	0	0	1	0	0

AIRCRAFT CONFIGURATION FILE

PAGE 23

CODE	NOMENCLATURE	QUANTITY PER AIRCRAFT				
		AH-1G	UH-1H	CH-47	CH-54	OH-58
910000	EMERGENCY EQUIP SYSTEM					
910100	FIRE FIGHTING EQUIP SUBSYSTEM					
910101	PORTABLE FIRE BOTTLE	2	1	3	1	1
910102	FIRE/CRASH AXE/KNIFE	2	0	1	1	0
910200	MEDICAL EQUIP SUBSYSTEM					
910201	FIRST AID KIT	2	4	7	1	1
910300	SURVIVAL EQUIP SUBSYSTEM					
910301	SURVIVAL KIT	0	1	2	1	0

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

140

PAGE 2

141

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

PAGE 3

WUC	MOS 1	MOS 2	MOS 3	DET	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	ABT PRB/ W/FR	ABT PRB/ MO FR	PCHT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCM METH 3/4	SCM MIN	REP ENT/ HRS
NOAEMCLATURE	110401	67020	67M20	68G20	4	190 35	105 24	020 22	22	0.0	0.0	0.0	0.0	Y	09	0.10	09	0.5	2.5
	110602	67020	67M20	68G20	29	190 50	020 25	070 10	94	0.0	0.0	0.0	0.0	N		0.0	09	1.0	1.4
	110603	67020	67M20	68G20	15	106 22	105 17	167 17	15	6.3	7.8	0.0	0.0	N		0.0	09	3.0	1.3
	110604	67020	67M20	68G20	2	020 33	730 33	170 17	84	0.0	0.0	0.0	0.0	N		0.0	09	0.5	2.0
110605	67020	67M20	68G20	2	020 100		0	0	25	0.0	0.0	0.0	0.0	N		0.0	09	0.5	2.0
110606	67020	67M20	68G20	2	070 100		0	0	0	0.0	0.0	0.0	0.0	Y	09	0.10	09	0.5	0.8
120000																			
FUSELAGE COMPARTMENT SYSTEM																			
120100																			
COCKPIT SUBSYSTEM																			
120101	67020	67M20	68G20	62	106 57		093 10	190 10	7	0.0	0.0	0.0	0.0	N		0.0	09	2.0	0.7
120102	67020	67M20	67020	34	190 60		070 20	266 10	16	22.2	23.3	99.9	99.9	N		0.0	09	1.0	0.8
120103	67020	67M20	58G20	13	780 50		105 25	381 25	0	0.0	0.0	0.0	0.0	N		0.0	09	2.0	0.5
120104	67020	67M20	67020	132	730 20		106 17	124 14	12	4.2	5.3	0.0	0.0	N		0.0	09	2.0	0.9
120105	67020	67M20	67020	6	135 33		410 33	760 33	107	0.0	0.0	0.0	0.0	N		0.0	08	4.0	1.1
120106	67020	67M20	67020	16	932 33		105 25	135 17	0	10.1	11.3	0.0	0.0	Y	08	0.20	08	3.0	0.6
120107	67020	67M20	67020	17	932 24		127 19	070 14	0	0.0	0.0	0.0	0.0	Y	09	0.20	09	1.0	0.4
120108	67020	67M20	67020	2	070 100		0	0	0	0.0	0.0	0.0	0.0	Y	09	0.10	09	0.8	0.5
120109	67020	67M20	67020	6	135 33		410 33	760 33	107	0.0	0.0	0.0	0.0	Y	09	0.10	08	3.0	1.5

INSPECTION ANALYSIS MASTER CONFIGURATION FILE																				PAGE	4
MJC	MOS 1	MOS 2	MOS 3	DET	1ST	FR/	2ND	PR/	3RD	FR/	ABT	ABT	ABT	PCMT	FR	FR	FR	FR	FR	SCH	REP
NOMENCLATURE				START	MODE/	SCH	MODE/	SCH	MODE/	SCH	MODE/	MODE/	MODE/	MODE/	MODE/	MODE/	MODE/	MODE/	MODE/	MODE/	MODE/
				RATE	PCNT	PCNT	PCNT	PCNT	PCNT	PCNT	PCNT	PCNT	PCNT	PCNT	PCNT	PCNT	PCNT	PCNT	PCNT	PCNT	PCNT
120110	67020	67M20	67020	4	070	127	127	242	17	17	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RELIEF TUBE					33	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	0.0
120111	67020	67M20	68620	61	730	105	105	104	10	10	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAP CASE					57	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	0.0
120112	67020	67M20	67020	61	730	105	105	106	10	10	5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SPARE LAMP STORAGE BOX					57	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	0.0
120200																					0.0
CABIN SUBSYSTEM																					0.0
120201	67020	67M20	67020	6	947	127	127	730	4	4	44	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PASSENGER SEAT					63	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	0.0
120202	67020	67M20	67020	5	020	100	100	0	0	0	160	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LAP BELT					100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
120203	67020	67M20	67020	1	020	301	301	730	13	13	15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
INSULATION BLANKET PANEL					25	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	0.0
120204	67020	67M20	67020	4	070	33	33	0	0	0	89	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BLOCK & TACKLE ASSY					33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	33	0.0
120300																					0.0
RAMP ACTUATE/CONTROL SUBSYS																					0.0
120301	67020	67M20	68M20	9	070	127	127	730	13	13	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
RAMP CONTROL PANEL					63	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	0.0
120302	67020	67M20	68M20	89	381	780	780	020	2	2	40	10.2	18.7	75.4	75.4	75.4	75.4	75.4	75.4	75.4	0.0
RAMP ACTUATE CYLINDER & LOCK					86	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	0.0
120400																					0.0
HATCH DOOR ACTUATION SUBSYS																					0.0
120401	67020	67M20	67020	21	381	020	020	244	17	17	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HATCH DOOR ACTUATING CYLINDER					33	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	0.0
120402	67020	67M20	67020	21	381	020	020	244	17	17	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HATCH DOOR LATCH					33	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	0.0
130000																					0.0
LANDING GEAR SYSTEM																					0.0
130100																					0.0
MLG SKID TYPE SUBSYSTEM																					0.0
130101	67020	67M20	67020	210	020	730	730	104	12	12	35	4.8	7.9	76.9	76.9	76.9	76.9	76.9	76.9	76.9	0.0
SKID TUBE					25	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	0.0

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

PAGE 5

WJC	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT W/F	ABT PRB/ W/F	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR METH 3/4	SCH METH MIN	REP EMT/ HRS
WOMENCLATURE																			
130102	67020	67020	67020	42	020 40	106 20	730 16	39	0.0	0.0	0.0	Y	09	0.10	09	0.10	09	1.0	1.6 3.4
130103	67020	67020	67020	70	780 20	020 18	106 16	10	2.5	4.3	0.0	Y	09	0.10	09	0.10	09	11	3.0 7.4
130104	67020	67020	67020	21	106 63	020 19	730 13	63	0.0	0.0	0.0	Y	09	0.10	09	0.10	09	1.5	0.8 0.8
130105	67020	67020	68620	84	190 48	780 14	070 11	51	12.6	21.5	50.0	Y	09	0.10	09	0.10	09	1.0	1.1 1.3
130200																			
MLG QLEO TYPE SUBSYSTEM																			
130201	67020	67020	68020	131	381 26	525 21	374 7	23	6.1	11.6	29.7	Y	09	0.10	09	0.10	09	2.0	1.5 2.7
130202	67020	67020	67020	75	381 72	020 4	230 4	43	4.6	9.7	0.0	Y	09	0.10	09	0.10	09	0.9	2.4 5.2
130203	67020	67020	67020	1	105 100	0	0	160	0.0	0.0	0.0	Y	09	0.10	09	0.10	09	1.5	1.3 1.3
130204	67020	67020	67020	41	730 55	660 18	070 9	44	12.1	19.7	99.9	Y	09	0.10	09	0.10	09	6.0	0.6 0.8
130205	67020	67020	67020	51	070 58	135 11	505 9	22	1.9	3.5	0.0	Y	09	0.10	08	0.10	08	2.0	0.8 0.9
130207	67020	67020	67020	325	020 23	702 12	230 17	210	1.7	3.3	35.9	Y	09	0.10	08	0.10	08	2.0	0.9 1.2
130300																			
MLG BRAKE SUBSYSTEM																			
130301	67020	67020	68020	187	651 48	381 24	325 10	13	1.1	1.6	99.9	Y	04	0.10	08	0.10	08	1.5	0.8 1.1
130302	67020	67020	68020	296	381 64	020 13	651 10	31	2.2	4.4	50.0	Y	04	0.10	08	0.10	08	2.0	1.2 1.8
130303	67020	67020	67020	293	070 45	135 12	127 5	12	0.7	1.0	99.9	Y	04	0.10	08	0.10	08	1.3	0.9 1.2
130304	67020	67020	67020	90	020 41	410 21	127 8	19	6.4	11.7	9.0	N	0.0	0.0	08	0.0	08	4.0	1.2 1.7
130305	67020	67020	67020	5	070 54	106 25	127 11	46	0.0	0.0	0.0	N	0.0	0.0	08	0.0	08	0.9	1.0 1.0
PARKING BRAKE LINKAGE/SPRING																			

PAGE 6

145

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

PAGE 7

MUC	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	ABT PRB/ W/FR	ABT PRB/ W/FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR METH 1/2	SCM METH 1/2	SCM METH 3/4	REP ENT/ MRS
140107	67020	67M20	67020	39	242 23	135 19	0	0	0	0.0	2.4	0.0	N	0.0	0.0	0.0	1.0	1.1 1.2
140108	67020	67M20	68F20	2	135 100	0	0	0	0	0.0	0.0	0.0	N	0.0	0.0	0.0	1.5	2.5 5.0
140109	67020	67M20	67020	28	947 36	020 28	0	0	0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.5	1.1 1.4
140200	CYCLIC CONTROLS SUBSYSTEM																	
140201	67020	67M20	67020	123	127 28	070 13	0	0	0	4.3	4.3	50.0	Y	08 09	0.20	08 09	5.0	1.3 1.7
140202	67020	67M20	68F20	1201	374 28	127 12	0	0	0	6.9	9.7	32.7	N	0.0	0.0	0.0	1.0	1.4 2.0
140203	67020	67M20	68F20	32	070 28	127 28	0	0	0	6.3	6.3	0.0	Y	09	0.10	09	0.5	1.2 1.8
140204	67020	67M20	67020	80	127 33	020 20	0	0	0	6.2	7.6	0.0	Y	09 10	0.20	09 10	5.0	1.7 2.2
140205	67020	67M20	67020	7	127 35	020 20	0	0	0	7.1	8.3	33.0	Y	09 10	0.10	09 10	1.5	1.2 1.6
140206	67020	67M20	67020	95	020 59	710 24	0	0	0	5.5	7.5	24.9	Y	09 10	0.10	09 10	2.0	1.8 2.3
140207	67020	67M20	68F20	110	135 45	001 13	0	0	0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.8	2.0 3.8
140208	67020	67M20	67020	44	127 14	135 15	0	0	0	4.2	4.4	0.0	N	0.0	0.0	0.0	1.5	1.9 2.5
140209	67020	67M20	68F20	345	381 36	135 23	0	0	0	7.2	9.0	0.0	N	0.0	0.0	0.0	1.0	2.0 3.2
140210	67020	67M20	67020	1	020 100	0	0	0	0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.5	0.5 0.5
140300	CONTROLS MIXER SUBSYSTEM																	
140301	67020	67M20	67020	45	020 47	105 16	0	0	0	7.8	11.7	0.0	Y	09 10	0.60	09 10	20.0	1.9 2.3
140400	MAST CONTROLS SUBSYSTEM																	

INSPECTION ANALYSIS MASTER CONFIGURATION FILE																									PAGE	8
MJC	MOS 1	MOS 2	MOS 3	DET	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	ABT PRB/ W/FR	ABT PRB/ MD	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH MIN	RES	REP ENT/ MOS					
140401	67020	67M20	67020	420	Q20 32	127 30	730 14	21 11.6	14.6	41.5	Y	Y	09 10	0.60	08 10	40.0	2.8	2.8	5.0							
SWASHPLATE ASSEMBLY																										
140403	67020	67M20	67020	774	Q20 64	710 9	730 7	62 5.4	9.8	25.1	Y	Y	09 10	0.40	09 10	15.0	1.8	1.8	2.6							
SCISSOR & SLEEVE ASSEMBLY																										
140404	67020	67M20	67020	219	Q20 63	730 13	710 10	45 0.0	0.0	0.0	Y	Y	09 10	0.10	09 10	1.5	2.1	2.1	3.3							
LINK/ROD/LEVER, ETC																										
140405	67020	67M20	67020	5	105 100	0	0	0	0.0	0.0	N	N		0.0	09	0.5	1.3	1.3								
SWASHPLATE BOOT/SEAL																										
140406	67020	67M20	67020	162	Q20 49	710 18	730 14	86 5.7	12.4	20.3	Y	Y	09 10	0.90	08 10	50.0	2.8	2.8	7.5							
SWASHPLATE ASSY (HEAVY HELD)																										
140500																										
TAIL ROTOR CONTROLS SUBSYSTEM																										
140501	67020	67M20	67020	24	135 26	127 20	070 13	0	10.3	11.1	0.0	Y	Y	08 09	0.10	08 09	1.0	1.1	1.1							
PEDAL ASSEMBLY																										
140502	67020	67M20	67020	23	127 35	135 21	070 14	10	7.7	10.0	0.0	N	N		0.0	09	1.5	1.6	1.6							
PEDAL ADJUSTMENT MECHANISM																										
140503	67020	67M20	68F20	4	374 50	135 25	900 25	0	0.0	0.0	0.0	N	N		0.0	09	1.0	1.3	1.3							
TAIL ROTOR TRIM ACTUATOR																										
140504	67020	67M20	67020	2	381 40	020 20	127 20	28	5.5	7.0	33.0	Y	Y	09 10	0.10	09 10	1.5	1.7	2.6							
PUSH-PULL ROD																										
140505	67020	67M20	67020	21	Q20 41	127 26	710 9	57	2.5	3.8	20.0	Y	Y	09 10	0.10	09 10	2.0	1.4	1.4							
CRANK/LEVER/ARM, ETC																										
140506	67020	67M20	68F20	45	135 28	381 14	651 14	10	7.7	7.7	33.0	N	N		0.0	09	0.8	1.6	2.7							
MAGNETIC BRAKE																										
140507	67020	67M20	67020	13	Q20 50	127 25	135 25	69	0.0	0.0	0.0	N	N		0.0	09	1.5	2.8	4.0							
FORCE GRADIENT ASSEMBLY																										
140508	67020	67M20	67020	8	Q20 50	070 21	190 14	99	0.0	0.0	0.0	Y	Y	09	0.10	09 26	1.0	1.0	1.1							
PULLEY																										
140509	67020	67M20	67020	13	Q20 50	170 25	710 25	138	0.0	0.0	0.0	Y	Y	09	0.10	09 10	2.0	0.8	0.9							
QUADRANT																										
140510	67020	67M20	67020	48	Q20 50	127 11	230 9	42	5.1	6.6	0.0	Y	Y	09	0.15	09 13	7.0	1.1	1.1							
CABLE ASSEMBLY/TURNBUCKLE																										
140511	67020	67M20	67020	8	Q20 50	127 25	780 13	99	0.0	0.0	0.0	N	N		0.0	09 26	0.5	1.0	1.1							
FAIRLEAD																										

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

PAGE 9

MUC	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCNT	FR/ DET	2ND MODE/ PCNT	FR/ DET	3RD MODE/ PCNT	ABT TOS HRS	ABT PRB/ W/R	ABT PRB/ W/R	PCNT INFLT	FR INSP Y/N	FR METH 1/2	FR METH 1/2	SCM METH 1/2	SCM METH 3/4	SCM METH HRS	REP ENT/ HRS
140512	67020	67M20	67020	95	020	68	135	11	246	75	19.0	55.2	0.0	Y	09	0.10	09	26	5.0	1.3
CHAIN ASSEMBLY									7								11		1.7	
140600																				
TAIL ROTOR PITCH CNTRL SUBSYS																				
140601	67020	67M20	68E20	299	020	73	730	7	710	64	8.0	13.0	0.0	Y	09	0.50	08	10	4.0	1.4
CROSS HEAD/STAR									0						10		09	11		1.5
140602	67020	67M20	68E20	172	127	50	020	34	170	30	3.8	4.6	33.4	Y	00	0.10	08	10	1.5	1.1
PITCH CHANGE LINK									5						10		09	11		1.2
140700																				
ELEVATOR CONTROLS SUBSYSTEM																				
140701	67020	67M20	67020	3	381	40	020	20	127	28	0.0	0.0	0.0	Y	09	0.10	09	11	1.5	1.7
PUSH-PULL ROD									20						10		10			2.6
140702	67020	67M20	67020	1	020	50	070	50	0	60	0.0	0.0	0.0	Y	09	0.10	09	11	1.5	1.6
CRANK/LEVER/ARM, ETC									0						10		10			3.6
140703	67020	67M20	67020	26	020	38	127	25	190	52	39.4	48.7	0.0	Y	09	0.20	09	11	5.0	3.3
TORQUE TUBE									13						10		10			4.8
140800																				
STABILITY AUGMENTATION SUBSYS																				
140801	67020	35K20	35K20	139	374	45	242	8	450	0	2.6	3.0	0.0	N		0.0	04		1.0	1.1
SAS GYRO									0								09			2.0
140802	67020	35K20	35K20	8	780	40	070	20	437	0	20.0	20.0	0.0	N		0.0	04		0.8	1.2
SAS TRANSDUCER									20											1.2
140803	67020	35K20	35K20	229	127	47	135	13	242	0	7.0	8.8	43.6	N		0.0	04		3.0	2.5
SAS CONTROL ACTUATOR									11								09			4.8
150000																				
ROTOR SYSTEM																				
150100																				
MAIN ROTOR SUBSYSTEM																				
150101	67020	67M20	68E20	180	190	30	780	19	731	13	13.5	22.9	58.0	Y	02	2.00	09	24	8.0	2.2
M.R. BLADE ASSEMBLY									0						09		11			5.1
150102	67020	67M20	68E20	17	020	20	127	20	135	50	32.0	89.0	0.0	Y	00	0.10	09		0.9	0.9
DRAG BRACE									20											1.3
150103	67020	67M20	68E20	114	127	16	190	12	381	16	6.1	14.5	2.3	Y	09	0.10	09		1.5	1.9
DAMPER ASSEMBLY									11											3.1

INSPECTION ANALYSIS MASTER CONFIGURATION FILE																									PAGE 10
NUC	MOS 1	MOS 2	MOS 3	DET	1ST	FR/	2ND	FR/	3RD	FR/	TDS	ABT	ABT	PCNT	FR	FR	FR	FR	FR	FR	FR	FR	FR	FR	FR
NOMENCLATURE				START RATE	PNT	MODE/	PNT	MODE/	PNT	MODE/	DET	MODE/	DET	MODE/	DET	MODE/	DET	MODE/	DET	MODE/	DET	MODE/	DET	MODE/	DET
150104 67020 67M20 68E20 DAMPER RESERVOIR	15	381	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150105 67020 67M20 68E20 DAMPER ROSE	1	381	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150106 67020 67M20 68E20 PITCH VARYING HOUSING/ASSY	36	020	32	730	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150107 67020 67M20 68E20 TENSION-TORSION STRAP SET	2	246	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150108 67020 67M20 68E20 HUB ASSEMBLY	491	020	24	127	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150109 67020 67M20 68E20 HUB OIL RESERVOIR	7	381	55	410	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150111 67020 67M20 68E20 CENTRIFUGAL DROOP STOP ASSY	26	020	22	070	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150112 67020 67M20 68E20 ANTI-FLAP RESTRAINER	6	135	33	230	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150113 67020 67M20 68E20 PITCH HORN	5	020	67	106	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150114 67020 67M20 68E20 PITCH LINK	495	127	41	020	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150115 67020 67M20 68E20 K BAR	52	710	50	105	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150116 67020 67M20 67020 CONTROL TUBE/ROU	31	020	39	106	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150117 67020 67M20 68E20 STABILIZER BAR ASSEMBLY	740	020	41	710	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150118 67020 67M20 68E20 STABILIZER DAMPER	437	020	53	127	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150119 67020 67M20 68E20 ROTARY WING HEAD FAIRING	45	730	50	106	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150120 67020 67M20 68E20 SAND DEFLECTOR	45	730	50	106	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
150121 67020 67M20 67020 BUOY/COVER	27	947	63	020	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

INSPECTION ANALYSIS MASTER CONFIGURATION FILE															PAGE 11	
MUC	MOS 1	MJS 2	MDS 3	DET	1ST	FR/	2ND	FR/	ABT	ABT	PCNT	FR	FR	FR	FR	FR
NOMENCLATURE				START	MODE/	SCH	MODE/	SCH	PRB/	PRB/	ABT	INSP	INSP	INSP	INSP	INSP
				RATE	PCNT	DET	PCNT	DET	W/FR	MO	FR	Y/N	Y/N	Y/N	Y/N	Y/N
150122	67020	67W20	68E20	531	020		381		95	4.6	10.6	31.2	Y	08	0.30	5.0
PITCH VARY MSG/ASSY (HWY HELD)					25		10							09	11	1.7
150123	67020	67W20	69E20	291	381		127		28	9.2	16.3	37.4	Y	09	0.40	3.3
HUB ASSEMBLY (HEAVY HELD)					32		19									3.0
150200																9.0
TAIL ROTOR SUBSYSTEM																
150201	67020	67W20	68E20	272	780		731		16	12.3	19.2	11.9	Y	09	0.50	4.0
T.R. BLADE ASSEMBLY					38		19								11	1.1
150202	67020	67W20	68E20	175	381		386		13	1.9	6.7	64.8	Y	08	0.20	2.5
SLEEVE & SPINDLE ASSEMBLY					39		20							09		1.7
150203	67020	67W20	68E20	761	710		020		34	5.3	7.0	24.4	Y	09	0.10	3.9
HUB ASSEMBLY					56		7								12	1.4
150204	67020	67W20	68E20	15	381		0		20	0.0	0.0	0.0	Y	05	0.10	1.6
OIL RESERVOIR					100											0.8
220000																1.3
TURBOSHAFTE ENGINE SYSTEM																
220100																
ENGINE ASSEMBLY SUBSYSTEM																
220101	67020	67W20	68B20	346	381		127		9	13.0	16.6	30.5	Y	09	2.00	2.3
ENGINE ASSEMBLY					8		4								06	5.3
220200																
ENG REPLACBLE COMPMENTS SUBSYS																
220201	67020	67W20	68B20	5	437		0		142	0.0	0.0	0.0	N		0.0	3.0
COMBUSTION CASE FUEL DRAIN VLV					100											0.5
220202	67020	67W20	67020	13	190		730		0	0.0	0.0	0.0	N		0.0	1.0
EXHAUST EJECTOR					50		50									3.3
220203	67020	67W20	67020	1	070		0		0	0.0	0.0	0.0	N		0.0	5.4
INSULATION BLANKET					100											0.5
220204	67020	67W20	67020	43	190		106		70	3.3	8.9	0.0	N		0.0	0.4
FIRESHIELD					37		24									2.1
220300																2.9
ENGINE FUEL SUBSYSTEM																
220301	67020	67W20	68B20	177	127		242		2	3.7	4.0	50.0	N		0.0	1.7
FUEL CONTROL ASSEMBLY					54		10								04	10.0
															09	2.1

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

PAGE 12

MUC	MOS 1	MOS 2	MOS 3	DET START RATE	1ST PCNT	FR/ MODE/	2ND PCNT	FR/ MODE/	3RD PCNT	FR/ MODE/	ABT TOS	ABT PRB/	ABT W/R	PCNT NO FR	PCNT INFLT	FR INSP	FR METH	FR 1/2	FR MIN	SCH METH	SCH METH	SCH 3/4	SCH MIN	REP ENT/ HRS
NONECLATURE																								
220302	67020	67W20	67020	10	230	67	070	33	0		46	0.0	0.0	0.0	0.0	N		0.0	0.0	05	12	10.0	1.0	1.0
FUEL CONTROL STRAINER																								
220303	67020	67W20	67020	11	230	33	306	17	341	17	59	0.0	0.0	0.0	0.0	N		0.0	0.0	04	09	10.0	0.7	0.8
SERVO FILTER																								
220305	67020	67W20	68820	152	381	41	127	12	315	8	3	8.6	13.5	36.1		N		0.0	0.0	05		2.0	1.1	1.3
OVERSPEED GOVERNOR																								
220306	67020	67W20	68820	10	230	67	190	33	0		92	0.0	0.0	0.0	0.0	N		0.0	0.0	04	12	1.0	1.0	1.0
FUEL BOOST PUMP																								
220307	67020	67W20	67020	11	230	33	306	17	341	17	59	0.0	0.0	0.0	0.0	Y		01	0.10	04	12	10.0	0.7	0.8
FUEL FILTER																								
220308	67020	67W20	68820	35	230	18	730	18	037	9	10	0.0	0.0	0.0	0.0	N		0.0	0.0	09		2.0	1.4	3.5
FUEL HEATER																								
220309	67020	67W20	68820	72	780	33	381	18	317	9	64	29.4	40.7	26.8		Y		09	0.10	09		1.5	2.2	3.7
FLOW DIVIDER ASSEMBLY																								
220310	67020	67W20	68820	55	381	59	127	12	730	12	8	25.1	33.4	50.0		Y		09	0.10	04		2.0	3.0	6.0
MAIN & STARTING FUEL MANIFOLD																								
220311	67020	67W20	68820	19	381	45	020	15	730	12	31	21.2	43.1	0.0	0.0	Y		09	0.05	04	09	0.3	1.2	1.2
LINE/HOSE																								
220400																								
ENGINE LUBRICATION SUBSYSTEM																								
220401	67020	67W20	68820	72	381	50	106	9	730	9	31	5.7	14.0	0.0	0.0	Y		09	0.20	09		3.0	1.2	1.4
OIL TANK																								
220402	67020	67W20	67020	10	230	67	070	33	0		46	0.0	0.0	0.0	0.0	N		0.0	0.0	09	12	10.0	1.0	1.0
OIL STRAINER																								
220403	67020	67W20	67020	13	730	50	190	25	381	25	35	0.0	0.0	0.0	0.0	Y		01	0.10	09	12	10.0	0.6	0.7
OIL FILTER																								
220404	67020	67W20	68820	7	190	50	070	25	381	13	39	0.0	0.0	0.0	0.0	Y		09	0.10	08	09	1.5	1.7	2.2
LIQ-TU-LIQ OIL COOLER																								
220405	67020	67W20	68820	7	381	46	730	19	111	9	35	9.3	13.9	0.0	0.0	Y		09	0.05	04	09	0.3	0.7	0.9
LINE/HOSE																								
220500																								
ENGINE ELECTRICAL SUBSYSTEM																								
220501	67020	67W20	68F20	49	070	40	374	13	135	7	0	0.0	0.0	0.0	0.0	N		0.0	0.0	08		1.0	1.2	1.3
TEST SWITCH																								

INSPECTION ANALYSIS MASTER CONFIGURATION FILE																							PAGE	11
MUC	MOS 1	MOS 2	MOS 3	DET	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	TOS HRS	ABT W/FR	ABT PRB/ NO	ABT PRB/ NO	PCNT FR INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 3/4	SCH MIN	REP ENT/ HRS			
220502	67020	67W20	68820	16	070	190	450	15	0.0	0.0	0.0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	0.0	1.5	1.5		
																							20	20
ELECTRICAL HARNESS ASSEMBLY																								
220503	67020	67W20	68820	114	070	020	615	12	9.4	12.1	0.0	N	0.0	0.0	0.0	N	0.0	0.0	0.0	5.0	1.3	2.1		
																							14	11
FIRE DETECTOR ELEMENT																								
220600																								
ENGINE IGNITION SUBSYSTEM																								
220601	67020	67W20	68820	52	374	070	958	0	31.3	41.8	0.0	N	0.0	0.0	0.0	N	0.0	0.0	0.0	1.0	1.7	3.0		
																							13	13
IGNITION EXCITER																								
220602	67020	67W20	68820	6	020	070	0	0	0.0	0.0	0.0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	2.0	1.5	1.7		
																							50	50
IGNITION HARNESS																								
220603	67020	67W20	68820	15	242	900	020	38	14.9	24.6	0.0	N	0.0	0.0	0.0	N	0.0	0.0	0.0	4.0	1.7	3.0		
																							22	11
IGNITER PLUG																								
220700																								
BLEED AIR SUBSYSTEM																								
220701	67020	67W20	68820	6	374	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	N	0.0	0.0	0.0	2.0	1.6	2.1			
																						100	100	
ANTI-ICING PROBE																								
220702	67020	67W20	68820	10	127	0	0	0	0.0	0.0	0.0	0.0	0.0	0.0	N	0.0	0.0	0.0	10.0	1.2	1.5			
																						100	100	
AIRBLEED ACTUATOR/STRAINER																								
220703	67020	67W20	68820	35	230	730	037	0	0.0	0.0	0.0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	0.0	1.4	3.5		
																							18	9
AIR VALVE ASSEMBLY																								
220704	67020	67W20	68820	12	660	020	242	22	0.0	0.0	0.0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	0.3	1.1	1.6		
																							26	14
LINE/HOSE																								
240000																								
AUXILIARY POWER PLANT SYSTEM																								
240100																								
APP ENGINE ASSEMBLY SUBSYSTEM																								
240101	67020	67W20	68820	26	464	190	374	74	0.0	0.0	0.0	0.0	0.0	0.0	Y	0.0	0.30	0.0	0.0	12	53.0	3.4	4.9	
																								20
APP ENGINE ASSEMBLY																								
240200																								
APP REPLACEABLE COMPNT SUBSYS																								
240201	67020	67W20	68820	7	070	947	0	99	0.0	0.0	0.0	0.0	0.0	0.0	Y	0.0	0.10	0.0	0.0	0.0	1.5	0.9	0.9	
																								50
AIR INLET SCREEN																								
240202	67020	67W20	68820	14	020	011	070	44	0.0	0.0	0.0	0.0	0.0	0.0	Y	0.0	0.10	0.0	0.0	0.0	1.5	0.9	0.9	
																								25
AIR INLET DUCT																								

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

PAGE 14

WUC	MOS 1	MOS 2	MOS 3	DET	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	ABT PRB/ WFR	ABT PRB/ WFR	PCNT ABT FR INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCH METH MIN	REP ENT/ HRS
240204	67020	67M20	67020	1	070 100	0	0	0	0	0	0	0	0	N	0	0	0	0	1.5	0.5
INSULATION BLANKET																				
240300																				
APP FUEL SUBSYSTEM																				
240301	67020	67M20	68820	116	127 39	177 13	242 10	14	0.0	0.0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	4.0	1.5
FUEL CONTROL ASSEMBLY																				
240302	67020	67M20	68820	77	127 43	242 16	317 9	8	7.2	20.0	33.9	N	0.0	0.0	0.0	0.0	0.0	0.0	2.0	2.4
ACCELERATION CONTROL ASSY																				
240303	67020	67M20	68820	15	374 75	450 25	0	80	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.8
RATED SPEED CONTROL ASSY																				
240304	67020	67M20	68820	76	242 36	374 17	177 10	54	16.2	37.7	40.4	N	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.6
FUEL BOOST PUMP																				
240305	67020	67M20	67020	7	230 75	242 25	0	89	50.0	50.0	0.0	Y	0.1	0.0	0.10	0.0	0.0	0.0	10.0	1.7
FUEL FILTER																				
240306	67020	67M20	68820	11	070 33	106 33	104 33	16	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.5
PRESSURE SWITCH																				
240307	67020	67M20	68820	14	070 25	177 25	242 25	44	32.2	65.7	50.0	N	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.5
FUEL SHUTOFF VALVE																				
240308	67020	67M20	68820	3	381 60	177 20	190 20	35	40.0	99.0	50.0	Y	0.0	0.05	0.0	0.0	0.0	0.0	0.3	0.9
LINE/HOSE																				
240400																				
APP LUBRICATION SUBSYSTEM																				
240401	67020	67M20	68820	2	381 100	0	0	20	50.0	99.9	0.0	Y	0.0	0.20	0.0	0.0	0.0	0.0	3.0	1.5
OIL RESERVOIR																				
240402	67020	67M20	67020	13	730 50	190 25	381 25	35	0.0	0.0	0.0	Y	0.1	0.10	0.0	0.0	0.0	0.0	10.0	0.6
OIL FILTER																				
240403	67020	67M20	68820	20	108 33	190 33	561 33	0	33.3	33.3	66.0	N	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.7
OIL RELIEF VALVE																				
240404	67020	67M20	68820	3	381 60	177 20	190 20	35	40.0	99.9	50.0	Y	0.0	0.05	0.0	0.0	0.0	0.0	0.3	0.9
LINE/HOSE																				
240500																				
APP CONTROL SUBSYSTEM																				
240501	67020	67M20	68F20	12	117 43	106 14	160 14	25	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.9
START SWITCH																				

INSPECTION ANALYSIS MASTER CONFIGURATION FILE																				PAGE 15
MUC	MOS 1	MOS 2	MOS 3	DET	1ST	FR/	2ND	FR/	JRD	FR/	ABT	ABT	PCNT	FR	FR	FR	FR	FR	FR	REP
NOMENCLATURE				START RATE	MODE/ PCNT	SCH DET	MODE/ PCNT	SCH DET	MODE/ PCNT	SCH DET	MODE/ PCNT	MODE/ PCNT	MODE/ PCNT	MODE/ PCNT	MODE/ PCNT	MODE/ PCNT	MODE/ PCNT	MODE/ PCNT	MODE/ PCNT	ENT/ MRS
240502 67020 67W20 68F20 RELAY				5	374 33	567 33			901 33		0	0.0	0.0	0.0	N		0.0	0.0	0.0	1.0 1.4
240503 67020 67W20 68B20 SPEED CONTROL SWITCH				48	374 23	127 15			450 15		0	0.0	0.0	0.0	N		0.0	0.0	0.0	2.1 2.6
240600 APP IGNITION SUBSYSTEM																				
240601 67020 67W20 68B20 IGNITION UNIT				15	255 18	020 9			070 9		0	10.0	50.0	0.0	N		0.0	0.0	0.0	1.0 1.9 2.5
240602 67020 67W20 68B20 ENCITER				14	374 38	255 25			169 13		0	15.8	99.1	0.0	N		0.0	0.0	0.0	1.0 1.5 2.5
240603 67020 67W20 68B20 IGNITION HARNESS				4	070 50	080 50			0		0	0.0	0.0	0.0	N		0.0	0.0	0.0	0.8 0.8 0.8
240604 67020 67W20 68B20 IGNITER PLUG				37	242 24	615 14			900 14		9	20.0	39.9	0.0	N		0.0	0.0	0.0	1.3 2.4
240700 APP HYDRAULIC SUBSYSTEM																				
240701 67020 67W20 68H20 HYDRAULIC PUMP MOTOR				377	0	0			0		21	7.9	26.9	28.6	Y	09	0.10	0.0	0.0	2.0 1.5 2.1
240702 67020 67W20 68H20 HAND PUMP				7	093 50	381 50			0		80	0.0	0.0	0.0	N		0.0	0.0	0.0	2.5 1.3 1.3
240703 67020 67W20 68H20 ACCUMULATOR				158	381 59	525 14			651 5		15	2.5	8.1	12.2	Y	09	0.10	0.0	0.0	3.0 2.0 2.8
240704 67020 67W20 68H20 SOLENOID VALVE				60	381 81	374 13			242 6		30	7.5	50.0	0.0	N		0.0	0.0	0.0	0.8 1.9 3.2
240705 67020 67W20 67020 LINE/HOSE				40	381 60	020 8			114 4		59	0.0	0.0	0.0	Y	09	0.0	0.0	0.0	1.2 1.7
240800 APP INSTRUMENT SUBSYSTEM																				
240801 67020 67W20 68B20 THERMOCOUPLE				5	070 33	127 33			567 33		0	0.0	0.0	0.0	N		0.0	0.0	0.0	3.0 2.4 4.4
240802 67020 67W20 68B20 HOURMETER				7	730 50	458 50			0		80	0.0	0.0	0.0	N		0.0	0.0	0.0	0.5 2.0 3.0
240900 APP ENGINE MOUNT SUBSYSTEM																				

INSPECTION ANALYSIS MASTER CONFIGURATION FILE																				16	PAGE
WJC	MOS 1	MOS 2	MOS 3	DET	1ST	FR/	2ND	FR/	3RD	FR/	ABT	ABT	PCNT	FR	FR	FR	SCM	SCM	SCM	REP	
NOMENCLATURE				START	MODE/	SCH	MODE/	SCH	MODE/	SCH	TOS	PRB/	ABT	PCNT	FR	FR	METH	METH	SCH	EMT/	
				RATE	PCNT	DET	PCNT	DET	PCNT	DET	MRS	W/FR	NO	FR	1/2	1/2	1/2	3/4	MIN	MRS	
240901 67020 67W20 67020	11	020	780	127	02	0.0	0.0	0.0	0.0	0.0	N				0.0	0.0	0.0	4.0	3.9	6.3	
TUBULAR MOUNT		50	25	3																	
240902 67020 67W20 67020	7	020	070	0							25	0.0	0.0	0.0	0.0	0.0	0.0	1.0	2.8	5.1	
RUBBER SHOCK MOUNT		50	50																		
260000																					
DRIVES - TRANSMISSION SYSTEM																					
260100																					
MAIN XMSN DRIVES SUBSYSTEM																					
260101 67020 67W20 68020	324	020	381	127	61	9.1	14.7	0.0	0.0	0.0	Y				0.0	0.20	0.0	6.0	2.0	2.8	
ENGINE DRIVE SHAFT		41	22	8																	
260102 67020 67W20 68020	5	780	381	135	59	50.0	50.0	12.2	12.2	12.2	Y				0.0	0.30	0.0	2.5	1.2	1.6	
SHAFT COUPLING - THOMAS TYPE		46	28	17											10	11	11				
260103 67020 67W20 68020	47	020	106	127	57	0.0	0.0	0.0	0.0	0.0	Y				0.0	0.20	0.0	2.0	1.5	1.6	
SHAFT COUPLING-ZURN TYPE		24	16	15																	
260104 67020 67W20 68020	11	020	127	092	94	0.0	0.0	0.0	0.0	0.0	Y				0.0	0.10	0.0	3.0	1.5	2.2	
SHAFT TO COUPLING CLAMP		57	11	5																	
260105 67020 67W20 68020	132	020	710	381	102	1.8	3.3	0.0	0.0	0.0	Y				0.0	0.10	0.0	2.0	1.8	2.0	
HANGER BEARING		44	23	10																	
260106 67020 67W20 68020	1	230	381	0	160	0.0	0.0	0.0	0.0	0.0	Y				0.0	0.10	0.0	1.5	2.3	2.3	
BEARING SHOCK MOUNT		50	50																		
260107 67020 67W20 68020	55	020	070	750	47	10.0	16.6	24.0	24.0	24.0	Y				0.0	0.20	0.0	6.0	2.2	5.2	
ENG/SYNC DRIVE SHFT (HVV HELD)		10	5	3																	
260200																					
TAIL ROTOR/AUX POWER DR SUBSYS																					
260201 67020 67W20 68020	32	020	780	935	94	12.9	19.8	33.4	33.4	33.4	Y				0.0	0.20	0.0	6.0	1.2	1.5	
T.R./AUX POWER PLANT SHAFT		42	19	17																	
260202 67020 67W20 68020	7	070	780	410	78	6.8	29.0	0.0	0.0	0.0	Y				0.0	0.30	0.0	2.5	0.8	1.0	
SHAFT COUPLING - THOMAS TYPE		22	16	12											10	11	11				
260203 67020 67W20 68020	44	020	710	381	102	1.8	3.3	0.0	0.0	0.0	Y				0.0	0.20	0.0	2.0	1.8	2.0	
SHAFT COUPLING - ZURN TYPE		44	23	10																	
260204 67020 67W20 68020	11	020	127	092	94	0.0	0.0	0.0	0.0	0.0	Y				0.0	0.10	0.0	3.0	1.5	2.2	
SHAFT TO COUPLING CLAMP		57	11	5																	
260205 67020 67W20 68020	132	020	710	381	107	1.8	3.3	0.0	0.0	0.0	Y				0.0	0.10	0.0	2.0	1.8	2.0	
HANGER BEARING		44	23	10																	

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

WUC	MOS 1	MOS 2	MOS 3	DET	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	ABT PRB/ W/FR	ABT PRB/ MD	PCNT ABT FR	FR INSP Y/N	FR METH 1/2	FR METH 1/2	SCH METH 3/4	SCH METH MIN	REP ENT/ MRS
260206	67020	67M20	68020	1	230	50	381	50	0	160	0.0	0.0	0.0	Y	09	0.10	09	0.8	2.3
VISCIOUS DAMPER																			
260300	MAIN ROTOR DRIVE SUBSYSTEM																		
260301	67020	67M20	68020	83	381	14	780	9	020	27	7.7	14.9	25.0	Y	09	0.20	05	14.0	3.9
ROTOR DRIVE SHAFT & HSG ASSY																			
260302	67020	67M20	67020	27	070	42	730	19	306	12	3.5	4.6	0.0	N		0.0	09	4.0	0.8
RDS MAGNETIC CHIP DETECTOR																			
260400	FAN DRIVES SUBSYSTEM																		
260401	67020	67M20	68020	46	020	15	190	15	105	27	8.9	15.2	50.0	Y	09	0.20	09	6.0	1.7
FPM DRIVE SHAFT ASSEMBLY																			
260402	67020	67M20	67020	48	020	50	127	11	230	42	5.1	6.6	50.0	Y	09	0.10	09	1.0	0.5
DRIVE BELT																			
260403	67020	67M20	67020	8	020	50	070	21	190	70	0.0	0.0	0.0	N		0.0	09	1.0	1.1
DRIVE BELT PULLEY																			
260500	SEPARATE CLUTCH UNIT SUBSYS																		
260501	67020	67M20	68020	398	381	92	070	3	374	2	11.7	21.9	0.0	N		0.0	09	4.0	2.8
FREE WHEELING ASSY																			
260502	67020	67M20	67020	44	070	48	730	24	306	7	4.2	5.6	0.0	N		0.0	09	4.0	0.6
MAG CHIP DETECTOR																			
260503	67020	67M20	68020	1208	020	55	381	12	127	12	3.7	17.2	5.9	Y	09	0.20	09	3.0	2.2
AUX POWER PLANT SHAFT CLUTCH																			
260600	TRANSMISSION/GEARBOX SUBSYSTEM																		
260601	67020	67M20	68020	13	372	43	381	29	306	20	29.3	28.3	50.0	Y	09	0.70	09	14.0	3.2
ENGINE TRANSMISSION ASSY																			
260602	67020	67M20	68020	117	381	55	947	5	106	50	6.5	8.8	23.8	Y	09	1.50	09	25.0	2.5
COMBINING TRANSMISSION ASSY																			
260603	67020	67M20	68020	581	381	42	020	15	730	25	4.1	5.8	25.0	Y	09	1.50	09	22.0	3.6
MAIN ROTOR TRANSMISSION ASSY																			
260604	67020	67M20	68020	249	381	35	020	13	230	37	11.1	16.6	66.7	Y	09	0.70	09	14.0	1.5
INTERMEDIATE GEARBOX ASSY																			

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

PAGE 20

MUC	MOS 1	MOS 2	MOS 3	
NOMENCLATURE				
290204	67020	67W20	67020	
PULLEY				
290205	67020	67W20	67020	
CONTROL LEVER				
290206	67020	67W20	68F20	
PRESSURE SWITCH				
290207	67020	67W20	68F20	
WIRING HARNESS				
290208	67020	67W20	67020	
PARTICLE SEP ASSY (HEAVY HELD)				
290300				
AIR INDUCTION SUBSYSTEM				
290301	67020	67W20	67020	
INLET SCREEN				
290302	67020	67W20	68G20	
INLET DUCT/PLENUM CHAMBER				
290303	67020	67W20	68G20	
ALTERNATE AIR BYPASS DOOR				
290400				
AIRCRAFT EXHAUST SUBSYSTEM				
290401	67020	67W20	68G20	
TAILPIPE				
290402	67020	67W20	68G20	
TAILPIPE ADAPTER/EXTENSION				
290403	67020	67W20	67020	
TAILPIPE CLAMP/COUPLING				
290500				
AIRCRAFT BLEED AIR SUBSYSTEM				
290501	67020	67W20	67020	
BLEED AIR VALVE				
290502	67020	67W20	67020	
LINE/HOSE				
290600				
ENG ANTI-ICE/DE-ICE SUBSYSTEM				

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

PAGE 21

WUC	MOS 1	MOS 2	MOS 3	DET	1ST	FR/	2ND	FR/	3RD	FR/	ABT	PCNT	FR	FR	FR	SCH	SCH	REP
NOMENCLATURE				START	PCNT	MODE/	SCH	MODE/	SCH	MODE/	ABT	ABT	INSP	FR	FR	METH	METH	MTH
				RATE							W/FR	MD	FR	INFLT	Y/N	1/2	3/4	MRS
290601 67020 67M20 68F20	TEMPERATURE SENSOR			11	242	33	374	33	730	33	53	0.0	0.0	0.0	N	0.0	09	2.4
290602 67020 67M20 68F20	ENGINE ANTI-ICE SWITCH			4	242	60	374	40	0	0	20	0.0	0.0	0.0	N	0.0	08	5.4
290603 67020 67M20 68F20	SOLENOID VALVE			10	070	33	111	33	537	33	46	0.0	0.0	0.0	N	0.0	09	0.7
290604 67020 67M20 68F20	WIRING HARNESS			2	070	100	0	0	0	0	15	0.0	0.0	0.0	N	0.0	09	1.2
290700	START SUBSYSTEM																	1.8
290701 67020 67M20 68F20	STARTER SWITCH			12	381	31	242	15	374	15	25	22.8	48.1	50.0	N	0.0	09	0.5
290702 67020 67M20 68F20	STARTER RELAY			3	070	33	450	33	015	33	0	0.0	0.0	0.0	N	0.0	08	0.8
290703 67020 67M20 68F20	STARTER SOLENOID			40	106	20	374	20	105	20	0	0.0	0.0	0.0	N	0.0	08	1.2
290704 67020 67M20 68F20	STARTER GENERATOR			123	374	34	070	11	730	11	4	13.5	21.7	19.9	N	0.0	09	2.3
290705 67020 67M20 68H20	HYDRAULIC STARTER			297	381	42	037	18	374	15	20	17.7	40.8	6.7	Y	09	08	0.8
290706 67020 67M20 68H20	STARTER PRESSURE SWITCH			32	374	14	070	11	242	11	15	30.3	37.1	10.1	N	0.0	08	1.5
290707 67020 67M20 68H20	ENG START HYD MANIFOLD VALVE			36	381	45	242	14	374	11	17	13.8	34.5	0.0	Y	09	05	2.2
290800	THROTTLE/POWER LEVER SUBSYSTEM																	0.8
290801 67020 67M20 67020	CONTROL QUADRANT ASSY			144	374	22	242	14	127	9	9	12.3	16.7	24.5	Y	08	08	1.3
290802 67020 67M20 67020	ENGINE CONDITION CONTROL BOX			57	374	36	242	15	904	9	10	9.7	14.0	39.6	Y	0.0	08	1.2
290803 67020 67M20 67020	THROTTLE 1-1ST GRIP MECHANISM			5	127	33	135	33	437	33	5	0.0	0.0	0.0	Y	08	05	1.1
290804 67020 67M20 67020	ENGINE CONTROL LINKAGE			3	020	36	710	22	730	12	70	0.0	0.0	0.0	Y	09	08	1.5

PAGE 22

INSPECTION ANALYSIS MASTER CONFIGURATION FILE																				PAGE 23
MJC	MOS 1	MOS 2	MOS 3	DET	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	ABT PRB/ W/ER	ABT PRB/ MO	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	REP ENT/ MRS	
291005	67020	67W20	67020	2	135		0		0		0	0.0	0.0	0.0	N	0.0	0.0	0.5	0.6	0.6
THERMOSTATIC BYPASS VALVE																				1.0
291006	67020	67W20	68F20	5	242		374		730		0	0.0	0.0	0.0	N	0.0	0.0	0.8	1.0	1.0
SOLENOID SHUT-OFF VALVE																				1.2
291007	67020	67W20	67020	6	381		020		127		28	9.2	26.8	0.0	Y	09	0.05	0.0	0.3	1.0
LINE/HOSE																				1.0
410000																				
AIR COND/SURFACE ICE CONTRL SYS																				
410100																				
WINDSHIELD ANTI-ICE SUBSYSTEM																				
410101	67020	67W20	68F20	7	730		0		0		0	0.0	0.0	0.0	N	0.0	0.0	0.8	0.5	0.5
THERMOSTAT																				
410102	67020	67W20	68F20	4	242		374		0		29	0.0	0.0	0.0	N	0.0	0.0	1.3	0.7	1.2
ANTI-ICE SWITCH																				
410103	67020	67W20	68F20	3	070		450		615		0	0.0	0.0	0.0	N	0.0	0.0	0.8	1.5	2.2
HEAT RELAY																				
410104	67020	67W20	68F20	4	615		0		0		0	0.0	0.0	0.0	N	0.0	0.0	5.0	1.0	1.0
HEATER ELEMENT																				
420000																				
ELECTRICAL SYSTEM																				
420100																				
AC POWER SUBSYSTEM																				
420101	67020	67W20	68F20	22	374		585		070		7	0.0	0.0	0.0	N	0.0	0.0	8.0	1.9	3.1
GENERATOR																				
420102	67020	67W20	68F20	7	374		127		160		22	14.2	33.3	0.0	N	0.0	0.0	1.0	0.8	0.8
VOLTAGE REGULATOR																				
420103	67020	67W20	68F20	3	070		0		0		0	0.0	0.0	0.0	N	0.0	0.0	0.8	1.5	2.3
RELAY																				
420104	67020	67W20	68F20	1	070		472		0		0	0.0	0.0	0.0	N	0.0	0.0	0.1	0.4	2.4
CURRENT LIMITER																				
420105	67020	67W20	68F20	4	190		070		105		55	0.0	0.0	0.0	N	0.0	0.0	1.0	1.4	1.4
RECEPTACLE																				
420106	67020	67W20	68F20	23	381		106		450		0	14.3	33.4	95.9	N	0.0	0.0	1.0	1.0	1.2
TRANSFERMER																				

INSPECTION ANALYSIS MASTER CONFIGURATION FILE																				PAGE 24
MUC	MOS 1	MOS 2	MOS 3	DET	1ST	FR/	2ND	FR/	3RD	FR/	ABT	ABT	PCNT	FR	FR	FR	FR	SCH	SCH	REP
NOMENCLATURE				START	MODE/	SCH	MODE/	SCH	MODE/	SCH	PRB/	PRB/	ABT	INSP	METH	METH	METH	1/2	1/2	ENT/
				RATE	PCNT	DET	PCNT	DET	PCNT	DET	W/FR	W/FR	NO	Y/N	1/2	1/2	1/2	3/4	MIN	MRS
420107	67020	67W20	68F20	9	070	40	450	40	104	20	32	0.0	0.0	0.0	N	0.0	0.8	1.0	0.8	0.8
TRANSFORMER RECTIFIER																				
420108	67020	67W20	68F20	116	190	35	374	20	169	15	12	7.4	11.2	39.8	N	0.0	0.8	1.5	1.1	1.1
INVERTER																				
420109	67020	67W20	68F20	64	374	26	958	13	901	10	18	16.3	19.5	44.9	N	0.0	0.8	1.3	1.4	2.4
CONTROL SWITCH																				
420200																				
DC POWER SUPPLY SUBSYSTEM																				
420201	67020	67W20	68F20	141	374	28	070	19	169	9	13	20.5	26.7	12.4	N	0.0	0.9	8.0	1.9	3.7
GENERATOR																				
420202	67020	67W20	68F20	84	127	35	169	21	374	17	3	6.0	6.6	0.0	N	0.0	0.8	1.0	0.6	0.9
VOLTAGE REGULATOR																				
420203	67020	67W20	68F20	34	450	23	374	22	070	13	32	10.4	11.3	0.0	N	0.0	0.8	0.8	0.9	1.0
RELAY																				
420204	67020	67W20	68F20	1	070	50	472	50	0	0	0	0.0	0.0	0.0	N	0.0	0.9	0.1	0.4	2.4
CURRENT LIMITER																				
420205	67020	67W20	68F20	46	070	50	190	50	0	0	70	0.0	0.0	0.0	N	0.0	0.8	1.0	2.4	4.5
RECEPTACLE																				
420206	67020	67W20	68F20	1634	169	48	374	17	962	4	28	3.1	6.0	0.0	Y	0.9	0.10	15.0	0.7	0.8
BATTERY																				
420207	67020	67W20	68F20	163	230	60	170	9	190	7	90	1.2	2.3	0.0	Y	0.9	0.10	10.0	1.2	1.4
BATTERY SUMP JAR																				
420300																				
ELECT PWR DISTRIBUTION SUBSYS																				
420301	67020	67W20	68F20	3	127	100	0	0	0	0	0	0.0	0.0	0.0	N	0.0	0.8	1.3	0.3	0.3
MASTER SWITCH CONTROL PANEL																				
420302	67020	67W20	68F20	266	070	18	730	13	020	8	8	1.5	3.0	0.0	N	0.0	0.8	36.0	1.5	1.9
AIRCRAFT WIRING																				
440000																				
LIGHTING SYSTEM																				
440100																				
INTERIOR LIGHTS SUBSYSTEM																				
440101	67020	67W20	68F20	61	080	40	070	14	730	10	9	0.0	0.0	0.0	1	0.4	0.10	0.3	0.6	0.8
COCKPIT/CABIN LIGHT																				

INSPECTION ANALYSIS MASTER CONFIGURATION FILE																				PAGE	25
MUC	NOS 1	NOS 2	NOS 3	DET	1ST	FR/	2ND	FR/	3RD	FR/	TOS	ABT	ABT	PONT	FR	FR	SCH	SCH	REP		
NOMENCLATURE				START	MODE/	SCH	MODE/	SCH	MODE/	SCH	MRS	PRB/	PRB/	ABT	INSP	METH	METH	SCH	EMT/		
				RATE	PCNT	DET	PCNT	DET	PCNT	DET		W/FR	NO	FR	Y/N	1/2	3/4	MIN	MRS		
440102	67020	67W20	68F20	58	080	106	11	160	6		8	0.0	0.0	0.0	Y	04	0.03	08	0.1		
INSTRUMENT LIGHT					61												09		0.8		
440103	67020	67W20	68F20	529	374	958	14	080	7		13	0.8	0.9	0.0	Y	04	0.10	08	0.9		
CONTROL PANEL					21												09		1.3		
440200																					
EXTERIOR LIGHTS SUBSYSTEM																					
440201	67020	67W20	68F20	321	080	374	18	135	13		16	0.0	0.0	0.0	Y	04	0.10	08	0.7		
LANDING LIGHT					35												09		0.8		
440202	67020	67W20	68F20	361	374	080	21	958	9		21	0.0	0.0	0.0	Y	04	0.20	08	0.8		
SEARCH LIGHT					28												09		0.9		
440203	67020	67W20	68F20	41	030	070	10	104	6		12	3.4	4.7	10.5	Y	04	0.10	08	0.6		
POSITION/FORMATION LIGHT					59												09		0.7		
440204	67020	67W20	68F20	501	080	374	13	070	9		6	1.1	1.6	30.5	Y	04	0.10	08	0.9		
ANTI-COLLISION LIGHT					49												09		1.1		
440205	67020	67W20	68F20	32	374	450	23	160	10		14	0.0	0.0	0.0	N		0.0	08	0.8		
FLASHER UNIT					50														1.3		
440206	67020	67W20	68F20	6	093	730	50	0	0		0	0.0	0.0	0.0	Y	04	0.10	08	0.7		
CONTROL PANEL					50												09		0.7		
450000																					
HYDRAULIC POWER SYSTEM																					
450100																					
HYDRAULIC SOURCE/DISTRIB SUBSYS																					
450101	67020	67W20	68H20	205	381	230	21	410	8		35	21.7	37.2	0.0	Y	09	0.10	03	0.8		
RESERVOIR					53												09		1.1		
450102	67020	67W20	68H20	170	381	374	14	020	8		8	6.1	8.8	66.7	Y	09	0.10	09	1.1		
HYDRAULIC PUMP					40														1.5		
450103	67020	67W20	68H20	320	070	020	10	381	10		17	2.0	8.7	0.0	Y	09	0.10	09	1.1		
HYDRAULIC HAND PUMP					60														1.5		
450104	67020	67W20	67020	251	306	230	44	381	4		31	0.0	0.0	0.0	Y	01	0.10	04	0.9		
HYDRAULIC FILTER					45												08	12	1.4		
450105	67020	67W20	68H20	158	381	525	14	651	5		15	2.5	8.1	12.2	Y	09	0.10	08	2.0		
ACCUMULATOR					59												09		2.8		
450106	67020	67W20	68F20	3	381	0	0	0	0		0	0.0	0.0	0.0	N		0.0	08	0.8		
SOLENOID VALVE					100												09		1.8		

INSPECTION ANALYSIS MASTER CONFIGURATION FILE																				PAGE	22
MUC	MOS 1	MOS 2	MOS 3	DET	1ST MODE/	FR/ SCH	2ND MODE/	FR/ SCH	3RD MODE/	FR/ SCH	ABT PRB/ W/FR	ABT PRB/ W/FR	PCNT ABT INFLT	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	SCM MIN	REP ENT/ MRS	
450107	67020	67M20	68H20	5	381 47	106 13	106 13	374 13	0	27.1	31.6	0.0	N	0.0	0.0	0.0	0.5	0.8	0.8		
450108	67020	67M20	68H20	4	381 90	020 10	020 10	0	13	0.0	0.0	0.0	N	0.0	0.0	0.0	0.5	1.2	2.2		
450109	67020	67M20	68H20	7	106 50	190 50	190 50	0	160	0.0	0.0	0.0	N	0.0	0.0	0.0	0.5	0.8	0.8		
450110	67020	67M20	68H20	24	381 26	585 22	585 22	070 15	7	0.0	0.0	0.0	N	0.0	0.0	0.0	2.5	1.2	1.4		
450111	67020	67M20	68F20	142	615 18	242 11	242 11	020 9	16	13.4	20.5	0.0	N	0.0	0.0	0.0	1.3	1.1	1.6		
450112	67020	67M20	68H20	1	381 04	020 21	020 21	780 6	35	3.8	8.0	32.4	Y	0.0	0.05	0.0	0.3	1.0	1.2		
450200 HYDRAULIC BOOST SUBSYSTEM																					
450201	67020	67M20	68H20	14	020 25	381 25	381 25	525 25	10	0.0	0.0	0.0	Y	0.0	0.10	0.0	3.0	0.9	1.4		
450202	67020	67M20	68H20	15	381 59	070 6	070 6	127 6	52	15.6	65.8	50.0	Y	0.0	0.07	0.0	1.5	1.9	2.7		
450203	67020	67M20	68H20	1	242 50	381 50	381 50	0	0	0.0	0.0	0.0	Y	0.0	0.10	0.0	2.0	1.7	2.0		
450204	67020	67M20	68H20	604	381 29	710 16	710 16	127 11	52	9.2	13.2	27.5	Y	0.0	0.10	0.0	18.5	1.8	2.9		
450206	67020	67M20	68H20	15	381 43	167 36	167 36	127 14	90	0.0	0.0	0.0	N	0.0	0.0	0.0	1.0	1.8	2.6		
450207	67020	67M20	68H20	47	135 29	381 29	381 29	020 14	45	0.0	0.0	0.0	N	0.0	0.0	0.0	2.0	1.5	2.8		
450208	67020	67M20	68H20	8	381 28	150 12	150 12	008 11	10	0.0	0.0	0.0	N	0.0	0.0	0.0	0.5	3.4	5.3		
450300 HYD PRESSURE INDICATING SUBSYS																					
450301	67020	67M20	68F20	6	374 33	730 17	730 17	070 8	13	9.1	12.5	0.0	N	0.0	0.0	0.0	0.8	0.6	0.8		
450400 HYDRAULIC COOLING SUBSYSTEM																					

INSPECTION ANALYSIS MASTER CONFIGURATION FILE																				PAGE 29
WJC	MOS 1	MOS 2	MOS 3	DET	1ST MODE/ PCNT	FR/ SCH DET	2ND MODE/ PCNT	FR/ SCH DET	3RD MODE/ PCNT	FR/ SCH DET	ABT TOS MRS	ABT PRB/ W/FR	ABT MO	PCNT FR	FR INSP Y/N	FR METH 1/2	FR METH 1/2	SCM METH 1/2	SCM METH 3/4	REP ENT/ MRS
490302	67020	67M20	68F20	3	135 50		900 50	0			69	60.0	99.9	50.0	N		0.0	08 09	1.5	2.3 2.8
490303	67020	67M20	68F20	3	070 100		0	0			0	0.0	0.0	0.0	N		0.0	08 09	0.8	1.5 2.3
490304	67020	67M20	68F20	7	070 50		127 50	0			15	0.0	0.0	0.0	N		0.0	08 09	1.5	0.5 0.5
490305	67020	67M20	67020	5	070 54		106 25	127 11			35	0.0	0.0	0.0	N		0.0	08 09	0.5	1.0 1.0
490306	67020	67M20	67020	12	127 29		070 14	135 14			79	0.0	0.0	0.0	N		0.0	08 09	0.8	1.1 1.3
490307	67020	67M20	67020	2	020 100		0	0			138	0.0	0.0	0.0	N		0.0	08 09	0.8	1.0 1.0
490400	BLEED AIR RAIN REMOVAL SUBSYS																			
490401	67020	67M20	67020	7	242 100		0	0			0	0.0	0.0	0.0	N		0.0	09	1.5	4.3 6.5
490402	67020	67M20	67020	5	127 33		106 17	135 17			23	0.0	0.0	0.0	N		0.0	09	0.3	1.9 2.5
490500	WINDSHIELD WASHER SUBSYSTEM																			
490501	67020	67M20	68F20	6	242 60		374 40	0			29	0.0	0.0	0.0	N		0.0	08	1.3	0.7 1.2
490502	67020	67M20	68F20	7	108 50		127 50	0			0	0.0	0.0	0.0	N		0.0	08 09	1.5	0.3 0.3
490503	67020	67M20	67020	7	651 50		958 50	0			29	0.0	0.0	0.0	N		0.0	08 09	3.0	0.5 0.5
490504	67020	67M20	67020	60	230 35		127 33	730 10			50	0.0	0.0	0.0	N		0.0	08 09	0.8	0.9 0.9
490600	CARGO SUSPENSION SUBSYSTEM																			
490601	67020	67M20	67020	10	170 33		127 22	190 17			54	0.0	0.0	0.0	Y	09 10	0.30	08 09	10.0	1.2 1.2
490602	67020	67M20	67020	30	127 22		070 14	374 14			0	0.0	0.0	0.0	Y	09 10	0.20	08 09	8.0	1.3 1.8

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

PAGE 30

MUC NOMENCLATURE	MOS 1	MOS 2	MOS 3	DET START RATE	1ST MODE/ PCMT	FR/ SCH DET	2ND MODE/ PCMT	FR/ SCH DET	3RD MODE/ PCMT	FR/ SCH DET	TDS MRS	ABT M/FR	ABT PRB/	PCMT MO FR	INFLT Y/N	FR INSP Y/N	FR METH 1/2	FR MIN	SCH METH 1/2	SCH METH 3/4	REP SCH EVT/ MIN MRS
490603 67020 67M20 68F20 CARGO RELEASE PEDAL/CABLE	34	070 42	127 15	020 9	42	3.1	4.1	0.0	N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6 1.6
490604 67020 67M20 68F20 RELEASE SOLENOID	89	242 67	135 17	374 8	13	22.7	45.4	40.0	N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0 3.7
490605 67020 67M20 68F20 RELEASE RELAY	6	615 33	160 33	374 33	0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2 1.8
490606 67020 67M20 68F20 WINCH CONTROL PANEL	7	070 25	029 13	037 13	0	12.5	25.0	0.0	N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0 1.3
490607 67020 67M20 68H20 HYDRAULIC WINCH ASSEMBLY	346	381 43	020 11	070 5	4	0.8	1.4	99.9	Y	0.0	0.20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1 1.6
490608 67020 67M20 68H20 LOAD LEVELER CYLINDER	45	381 86	780 8	020 2	40	5.1	9.0	5.0	Y	0.0	0.10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9 3.2
490609 67020 67M20 68H20 WINCH PUMP	280	381 60	242 11	374 7	11	16.0	45.9	0.0	Y	0.0	0.10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9 6.7
490610 67020 67M20 68H20 RELIEF/SHUTOFF VALVE	45	242 67	135 17	374 8	13	22.7	45.4	40.0	N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0 3.7
490611 67020 67M20 67020 LINE/MOSE	41	381 79	020 5	070 5	22	8.1	16.7	0.0	Y	0.0	0.05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4 2.1
490612 67020 67M20 67020 MOIST CABLE	16	070 44	020 22	719 22	35	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1 1.8
490613 67020 67M20 68F20 LIMIT SWITCH	4	242 60	374 40	0	29	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7 1.2
490614 67020 67M20 68F20 CONTROL PANEL	9	106 33	080 25	127 25	0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6 0.6
490615 67020 67M20 67020 GUILLOTINE	7	127 75	730 25	0	0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2 1.2
490700 COMBUSTION HEAT/DEFOG SUBSYS																					
490701 67020 67M20 67020 COMBUSTION HEATER ASSEMBLY	43	070 22	190 11	242 11	29	20.9	20.9	0.0	N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5 2.7
490702 67020 67M20 68F20 AIR BLOWER	96	374 17	615 12	900 10	19	2.3	2.7	99.9	N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.7 3.1
490703 67020 67M20 68G20 VENTILATION/HEATER DUCT	3	106 20	190 20	135 10	63	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0 1.4

INSPECTION ANALYSIS MASTER CONFIGURATION FILE																				PAGE 31
WJC	MOS 1	MOS 2	MOS 3	DET	1ST	FR/	2ND	FR/	3RD	FR/	ABT	ABT	PCNT	FR	FR	FR	FR	SCH	SCH	REP
NOMENCLATURE				START	PCNT	MODE/	MODE/	PCNT	MODE/	PCNT	MODE/	MODE/	PCNT	MODE/	MODE/	MODE/	MODE/	MODE/	MODE/	MODE/
				RATE		DET	DET	DET	DET	DET	DET	DET	DET	DET	DET	DET	DET	DET	DET	DET
490704 67020 67M20 68F20				41	070	374	27	108	9	29	0.0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	2.0
AIR PRESSURE SWITCH					46															2.6
490705 67020 67M20 68F20				6	730	0	0	0	0	0	0.0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	0.8
CABIN HEAT CONTROL PANEL					100															1.3
490706 67020 67M20 67020				6	190	070	17	246	17	35	0.0	0.0	0.0	0.0	Y	0.0	0.05	0.0	0.0	0.7
HEATER FUEL LINE					50															0.7
490800																				
BLEED AIR HEAT/DEFOG SUBSYSTEM																				
490801 67020 67M20 68F20				9	730	070	33	105	33	0	0.0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	1.5
CONTROL PANEL					33															1.8
490802 67020 67M20 68F20				3	381	242	40	0	0	0	0.0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	1.0
SOLENOID VALVE					60															1.8
490803 67020 67M20 67020				1	190	947	10	730	7	87	0.0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	0.9
HEATER DUCT					83															1.2
490900																				
ELECTRIC CHIP DETECTOR SUBSYS																				
490901 67020 67M20 68F20				52	615	450	21	374	14	34	17.9	22.0	50.0	N	0.0	0.0	0.0	0.0	0.0	1.5
CHIP DETECTOR RELAY PANEL					36															2.1
490902 67020 67M20 67020				18	070	230	11	381	6	19	10.1	13.6	13.0	N	0.0	0.0	0.0	0.0	0.0	0.8
CHIP DETECTOR					54															1.0
491000																				
VISUAL AURAL DEBARK SUBSYSTEM																				
491001 67020 67M20 68F20				9	730	070	33	105	33	0	0.0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	1.5
CONTROL PANEL					33															1.8
491002 67020 67M20 68F20				22	374	070	17	450	17	27	0.0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	0.9
WARNING HORN					33															1.4
491003 67020 67M20 68F20				7	242	0	0	0	0	0	0.0	0.0	0.0	0.0	N	0.0	0.0	0.0	0.0	0.8
FLASHER UNIT					100															1.3
510000																				
INSTRUMENT SYSTEM																				
510100																				
FLIGHT INDICATORS SUBSYSTEM																				
510101 67020 57M20 67020				68	958	037	15	730	12	14	0.0	0.0	0.0	0.0	Y	0.0	0.10	0.0	0.0	0.8
AIR SPEED					22															1.4

INST ACTION ANALYSIS MASTER CONFIGURATION FILE																					PAGE 32	
MISC	MOS 1	MOS 2	MOS 3	DET	1ST	FR/	2ND	FR/	3RD	FR/	TOS	ABT	ABT	PCNT	FR	FR	FR	SCM	SCM	REP		
NOMENCLATURE				START	MODE/	SCM	MODE/	SCM	MODE/	SCM	DET	PRB/	PRB/	ABT	INSP	METH	FR	METH	METH	ENT/		
RATE	PCNT	DET	PCNT	PCNT	DET	DET	PCNT	DET	PCNT	DET	DET	W/FR	MD	FR	Y/N	1/2	MIN	3/4	MIN	MRS		
510102	67020	67M20	67020	36	127	958	27	374	9	0	0.0	0.0	0.0	0.0	N	0.0	0.0	0.5	0.5	0.6		
VERTICAL CLIMB																						
510103	67020	67M20	67020	162	127	958	19	374	7	4	1.1	1.1	99.9	N	0.0	0.0	0.5	0.5	0.6			
BAROMETRIC ALTITUDE																						
510104	67020	67M20	67020	29	127	958	22	135	11	0	0.0	0.0	0.0	0.0	N	0.0	0.0	4.0	4.0	0.7		
RATE OF CLIMB																						
510105	67020	35K20	35K20	12	374	958	29	730	14	0	0.0	0.0	0.0	0.0	N	0.0	0.0	0.5	0.5	0.6		
DIRECTIONAL GYRO																						
510106	67020	35K20	35K20	26	127	374	25	958	25	0	0.0	0.0	0.0	0.0	N	0.0	0.0	4.0	4.0	0.7		
TURN/SKIP																						
510107	67020	35K20	35K20	183	374	958	27	037	6	4	2.8	3.1	66.7	N	0.0	0.0	4.0	4.0	0.8			
ATTITUDE INDICATOR																						
510108	67020	67M20	67020	22	374	242	28	106	11	0	0.0	0.0	0.0	0.0	N	0.0	0.0	0.5	0.5	0.9		
FLT DIRECTOR HOVER INDICATOR																						
510109	67020	35K20	35K20	24	127	374	33	958	12	0	0.0	0.0	0.0	0.0	N	0.0	0.0	0.5	0.5	1.2		
CRUISE GUIDE INDICATOR																						
510200																						
MISC FLIGHT INSTRUMENTS SUBSYS																						
510201	67020	67M20	68F20	26	127	070	13	106	13	0	0.0	0.0	0.0	0.0	N	0.0	0.0	9.0	9.0	0.6		
AC VOLTAGE																						
510202	67020	67M20	68F20	48	127	374	27	958	20	9	0.0	0.0	0.0	0.0	N	0.0	0.0	9.0	9.0	0.7		
DC VOLTAGE																						
510203	67020	67M20	68F20	49	374	958	30	450	10	5	0.0	0.0	0.0	0.0	N	0.0	0.0	0.5	0.5	0.7		
DC LOADMETER																						
510204	67020	67M20	67020	203	374	958	11	070	10	9	0.0	0.0	0.0	0.0	N	0.0	0.0	2.0	2.0	0.8		
CLOCK																						
510205	67020	67M20	67020	39	374	334	17	958	17	0	0.0	0.0	0.0	0.0	N	0.0	0.0	0.5	0.5	0.6		
OUTSIDE AIR TEMPERATURE																						
510206	67020	67M20	68F20	90	958	901	18	080	14	10	7.7	8.3	0.0	Y	0.0	0.10	0.2	0.2	1.0			
MASTER CAUTION LIGHT																						
510207	67020	67M20	68F20	35	730	070	18	127	14	0	0.0	0.0	0.0	Y	0.0	0.10	0.2	0.2	1.1			
MASTER FIRE WARNING LIGHT																						
510208	67020	67M20	68F20	13	127	080	13	070	8	4	4.5	5.2	15.5	Y	0.0	0.05	0.2	0.2	0.8			
CAUTION LIGHT																						

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

PAGE 33

WUC	MOS 1	MOS 2	MOS 3	DET	1ST	FR/	2ND	FR/	3RD	FR/	TOS	ABT	ABT	PCNT	FR	FR	FR	SCH	SCH	SCH	REP
NOMENCLATURE				START	MODE/	SCH	MODE/	SCH	MODE/	SCH	DET	PCNT	DET	PCNT	ABT	INSP	FR	METH	METH	METH	ENT/
				RATE	PCNT	DET	PCNT	DET	PCNT	DET	PCNT	DET	PCNT	DET	PCNT	Y/N	MIN	1/2	3/4	MIN	MRS
510300																					
PITOT STATIC SUBSYSTEM																					
510301	67020	67M20	67020	9	170	33	070	17	230	17	46	0.0	0.0	0.0	0.0	Y	07	0.30	07	4.0	1.1
																					1.2
510302	67020	67M20	67020	5	070	33	135	33	230	33	0	0.0	0.0	0.0	0.0	Y	09	0.10	09	2.0	0.7
																					0.7
510303	67020	67M20	68F20	4	242	60	374	40	0	0	29	0.0	0.0	0.0	0.0	Y	04	0.20	08	1.3	0.7
																					1.2
510304	67020	67M20	67020	2	190	33	106	17	450	17	35	0.0	0.0	0.0	0.0	N	0.0	0.0	09	0.3	0.7
																					0.9
510305	67020	67M20	67020	9	381	73	020	9	106	9	13	0.0	0.0	0.0	0.0	N	0.0	0.0	09	3.0	1.0
																					1.8
510400																					
NAVIGATIONAL INDICATORS SUBSYS																					
510401	67020	67M20	67020	119	080	28	374	22	127	14	27	0.0	0.0	0.0	0.0	N	0.0	0.0	08	0.5	0.8
																					1.0
510500																					
COMPASS SUBSYSTEM																					
510501	67020	35K20	35K20	40	374	22	958	22	080	11	6	0.0	0.0	0.0	0.0	N	0.0	0.0	08	0.5	0.8
																					0.9
510502	67020	35K20	35K20	23	374	29	070	14	127	14	0	0.0	0.0	0.0	0.0	N	0.0	0.0	08	0.8	1.3
																					1.5
510503	67020	35K20	35K20	209	374	31	958	18	247	7	15	0.0	0.0	0.0	0.0	N	0.0	0.0	08	1.0	1.1
																					1.5
510504	67020	35K20	35K20	245	374	45	958	20	037	7	2	2.7	3.0	99.9	9	N	0.0	0.0	08	1.0	1.0
																					1.2
510505	67020	35K20	35K20	18	127	40	374	20	958	20	32	0.0	0.0	0.0	0.0	N	0.0	0.0	08	0.8	1.0
																					1.7
510600																					
ENGINE INSTRUMENTS SUBSYSTEM																					
510601	67020	67M20	68F20	95	374	38	958	14	381	14	24	4.2	4.3	0.0	0.0	Y	09	0.10	09	0.5	0.8
																					0.9
510602	67020	67M20	68F20	112	374	26	958	17	381	12	4	6.0	8.2	0.0	0.0	N	0.0	0.0	09	1.0	0.8
																					0.9

INSPECTION ANALYSIS MASTER CONFIGURATION FILE

PAGE 34

MUF	MOS 1	MOS 2	MOS 3	DET	1ST	FR/	2ND	FR/	3RD	FR/	TOS	ABT	ABT	PCNT	FR	FR	FR	SCH	SCH	REP
NOMENCLATURE				START RATE	MODE/ PCNT	SCH DET	MODE/ PCNT	SCH DET	MODE/ PCNT	SCH DET	HRS	W/FR	PRB/ MD	ABT INFLT	INSP Y/N	METH 1/2	METH 1/2	SCH 3/4	SCH MIN	ENT/ MRS
510603 OIL TEMPERATURE INDICATOR				35	958 46	070 9			093 9		13	0.0	0.0	0.0	Y	09	0.10	09	0.5	0.7
510604 OIL TEMPERATURE INDICATOR				6	901 50	958 50			0		0	0.0	0.0	0.0	N	0.0	0.0	0.8	0.5	0.5
510605 OIL PRESSURE INDICATOR				81	374 24	135 16			127 12		11	4.4	5.3	0.0	Y	09	0.10	08	0.5	0.7
510606 OIL PRESS TRANSMITTER				106	374 23	037 22			070 19		7	0.0	0.0	0.0	N	0.0	0.0	0.8	1.0	1.3
510607 FUEL PRESSURE INDICATOR				59	374 28	037 17			730 17		23	0.0	0.0	0.0	Y	09	0.10	08	0.5	0.8
510608 FUEL PRESSURE TRANSMITTER				229	374 35	958 13			070 9		6	1.5	2.0	0.0	N	0.0	0.0	0.8	1.2	1.4
510609 TORQUE INDICATOR				123	092 26	958 21			374 10		7	2.8	3.1	0.0	Y	09	0.10	08	0.5	0.7
510610 TORQUE SENSOR TRANSMITTER				16	127 39	037 17			374 17		10	0.0	0.0	0.0	N	0.0	0.0	0.8	1.5	2.1
510611 EXHAUST GAS :EMP INDICATOR				164	127 44	958 24			037 8		11	2.2	3.1	0.0	Y	09	0.10	09	10.0	1.4
510612 EXHAUST THERMOCOUPLE ASSY				16	070 20	108 20			127 20		28	0.0	0.0	0.0	N	0.0	0.0	10.0	2.1	2.3
510700 DRIVE SYS INSTRUMENTS SUBSYS																				
510701 OIL PRESSURE INDICATOR				35	958 36	374 27			901 18		0	9.1	11.2	0.0	Y	09	0.10	08	0.5	1.0
510702 OIL PRESSURE TRANSMITTER				39	381 17	958 17			037 8		23	10.0	11.1	0.0	N	0.0	0.0	0.8	0.8	0.9
510703 OIL PRESSURE TRANSDUCER				22	070 35	374 15			617 6		9	0.0	0.0	0.0	N	0.0	0.0	0.8	0.9	1.0
510704 TACH INDICATOR				65	958 30	127 30			374 20		0	10.0	10.6	50.0	Y	09	0.10	09	0.5	0.7
510705 TACH GENERATOR				77	958 21	381 17			901 17		0	0.0	0.0	0.0	N	0.0	0.0	1.0	1.1	1.7
510706 OIL TEMPERATURE INDICATOR				35	374 27	958 27			037 9		0	9.1	10.1	0.0	Y	09	0.10	09	0.5	0.7

INSPECTION ANALYSIS MASTER CONFIGURATION FILE																	PAGE 35
WJC	MOS 1	MOS 2	MOS 3	DET	1ST	FR/	2ND	FR/	3RD	FR/	ABT	ABT	PCNT	FR	FR	FR	REP
NOE/CLATURE				START	MODE/	SCM	MODE/	SCM	MODE/	SCM	PRB/	PRB/	ABT	INSP	METH	METH	ENT/
				RATE	PCNT	DET	PCNT	DET	PCNT	DET	W/FR	NO	FR	Y/N	1/2	1/2	MRS
510707	67020	67M20	68F20	37	070	14	135	14	730	14	0	0.0	0.0	0.0	0.0	0.0	0.9
TEMP INDICATOR SELECT SWITCH																	1.3
510708	67020	67M20	68F20	13	037	25	135	25	374	25	0	0.0	0.0	0.0	0.0	0.0	0.6
OIL TEMPERATURE BULB																	0.7
510709	67020	67M20	68F20	10	070	33	169	33	242	33	0	0.0	0.0	0.0	0.0	0.0	2.6
THERMOSWITCH																	4.6
510800 FUEL QUANTITY SUBSYSTEM																	
510801	67020	67M20	68F20	161	958	26	127	26	374	26	31	0.0	0.0	0.0	0.0	0.0	0.8
FUEL QUANTITY INDICATOR																	1.0
510802	67020	67M20	68F20	37	070	14	135	14	730	14	0	0.0	0.0	0.0	0.0	0.0	0.9
SELECTOR SWITCH																	1.4
510803	67020	67M20	68F20	3	070	25	246	25	425	25	0	0.0	0.0	0.0	0.0	0.0	1.6
FUEL QUANTITY TRANSMITTER																	2.9
510804	67020	67M20	68F20	16	374	40	070	20	127	20	28	0.0	0.0	0.0	0.0	0.0	1.9
LOW LEVEL SWITCH																	2.5
510900 HYDRAULIC INSTRUMENTS SUBSYS																	
510901	67020	67M20	68F20	19	080	32	374	9	525	9	0	0.0	0.0	0.0	0.0	0.0	0.6
BOOST PRESSURE INDICATOR																	0.7
510902	67020	67M20	68F20	200	525	32	037	14	135	8	27	11.1	20.1	30.1	0.0	0.0	1.1
UTILITY PRESSURE INDICATOR																	1.3
510903	67020	67M20	68F20	242	374	21	381	13	958	13	0	8.0	9.9	50.0	0.0	0.0	0.7
PRESSURE TRANSMITTER																	0.9
511100 APP INSTRUMENTATION SUBSYSTEM																	
511101	67020	67M20	68F20	5	127	33	242	33	450	33	0	0.0	0.0	0.0	0.0	0.0	2.3
EGT INDICATOR																	3.6
511102	67020	67M20	68F20	11	037	33	255	33	135	17	0	0.0	0.0	0.0	0.0	0.0	2.2
TACHOMETER																	3.3
511103	67020	67M20	68F20	56	374	19	070	13	242	13	11	3.4	3.7	0.0	0.0	0.0	0.7
OIL PRESSURE INDICATOR																	0.9
910000 EMERGENCY EQUIP SYSTEM																	

INSPECTION ANALYSIS MASTER CONFIGURATION FILE																	PAGE 36
MUC	MOS 1	MOS 2	MOS 3	DET	1ST	FR/	2ND	FR/	3RD	FR/	TOS	ABT	PCNT	FR	FR	FR	REP
NOMENCLATURE				START	MODE/	SCH	MODE/	SCH	MODE/	SCH	MRS	W/FR	NO FR	INFLT	Y/N	1/2	MIN
				RATE	PCNT	DET	PCNT	DET	PCNT	DET	PCNT	ABT	ABT	PCNT	FR	FR	MIN
910100																	
FIRE FIGHTING EQUIP SUBSYSTEM																	
910101	67020	67M20	67020	19	093		070		246		69	0.0	0.0	0.0	Y	09	0.10
PORTABLE FIRE BOTTLE					33		17		17								1.5
910102	67020	67M20	67020	15	070		780		931		40	0.0	0.0	0.0	Y	09	0.10
FIRE/CRASH AXE/KNIFE					50		25		25								1.5
910200																	0.5
MEDICAL EQUIP SUBSYSTEM																	0.5
910201	67020	67M20	67020	1	106		0		0		0	0.0	0.0	0.0	Y	09	0.10
FIRST AID KIT					100												1.5
910300																	0.7
SURVIVAL EQUIP SUBSYSTEM																	
910301	67020	67M20	67020	1	086		0		0		177	0.0	0.0	0.0	Y	09	0.10
SURVIVAL KIT					100												1.5
																	0.5

APPENDIX V
CONFIGURATION FILE CODE LISTINGS

Failure Mode Codes Numerical Listing

<u>CODE</u>	<u>DESCRIPTION</u>	<u>CODE</u>	<u>DESCRIPTION</u>
001	Gassy	106	Missing Bolts, Nuts
003	Open Filament or Tube Circuit		Screws, Rivets, Fasteners, Clamps or Other Common Hardware
004	Low GM or Emission		
007	Arcing, Arced	108	Broken, Faulty or
008	Noisy		Missing Safety Wire or
009	Microphonic		Key
010	Poor or Incorrect Focus	111	Burst or Ruptured
		116	Cut
020	Worn, Chafed or Frayed	117	Deteriorated
		127	Adjustment or Align- ment Improper
028	Conductance Incorrect	130	Change of Value
029	Current Incorrect	135	Binding, Stuck or
037	Fluctuates, Un- stable or Erratic		Jammed
		142	Engine Removed, Ex- cessive Maintenance
051	Fails to Tune or Drifts	150	Chattering
		158	Launch Damage
064	Incorrect Modula- tion	160	Contact/Connection Defective
065	High Voltage Standing Wave Ratio	167	Torque Incorrect
069	Flame-Out	169	Incorrect Voltage
070	Broken	170	Corroded
080	Burned Out or De- fective Light Bulb	177	Fuel Flow Incorrect
		181	Compression Low
086	Improper Handling	190	Cracked
088	Incorrect Gain	230	Dirty
092	Mismatched - Wheel Halves, Electronic Parts, etc.	242	Failed to Operate or Function - Specific Reason Unknown
093	Missing Part	246	Improper or Faulty Maintenance
094	No Gain or Emission	253	Misfires
		255	No Output
103	Attack Display Mal- function	277	Fuel Nozzle Coking
		279	Spray Pattern Defective
105	Loose or Damaged Bolts, Nuts, Screws, Rivets, Fasteners, Clamps or other Common Hardware	290	Fails Diagnostic Auto- matic Test

CONFIGURATION FILE CODE LISTINGS - Continued

Failure Mode Codes Numerical Listing (Continued)

<u>CODE</u>	<u>DESCRIPTION</u>	<u>CODE</u>	<u>DESCRIPTION</u>
301	Foreign Object Damage	450	Open
303	Bird Strike Damage	457	Oscillating
306	Contamination	458	Out of Balance
314	Slow Acceleration	464	Overspeed
315	RPM Fluctuation or Incorrect	472	Fuse Blown or Defective Circuit Protector
317	Hot Start	481	Keyway or Spline Damaged or Worn
330	Excessive Hum	503	Sudden Stop
334	Temperature Incorrect	520	Pitted
350	Insulation Breakdown	525	Pressure Incorrect
372	Metal on Magnetic Plug	537	Low Power or Thrust
374	Internal Failure	540	Punctured
380	Compressor or Turbine Wheel Damage - Reason Unknown	561	Unable to Adjust to Limits
381	Leaking - Internal or External	567	Resistance Incorrect
382	Liquid Lock	583	Scope Presentation Incorrect or Faulty
383	Lock-on Malfunction	585	Sheared
386	Maintenance Action Due to a Lost-in-Flight Occurrence	599	Travel or Extension Incorrect
396	Oil Breathing Excessive	601	Detonation
398	Oil Consumption Excessive	602	Failed, Damaged or Replaced Due to Malfunction of Associated Equipment or Item
410	Lack of, or Improper Lubrication	603	Oil in Induction System
424	External Power Source	604	Manifold Pressure Beyond Limits
425	Nicked	605	Crazed
437	Improperly Positioned or Selected	606	Drone or Drone Compound Not Recovered
447	Wrong Logic - Program or Computer	607	No-Go Indication - Specific Reason Unknown
		608	Counter Run Off-Position Indicator
		615	Shorted

CONFIGURATION FILE CODE LISTINGS - Continued

Failure Mode Codes Numerical Listing (Continued)

<u>CODE</u>	<u>DESCRIPTION</u>	<u>CODE</u>	<u>DESCRIPTION</u>
622	Wet	780	Bent, Buckled, Collapsed, Dented, Distorted or Twisted
649	Sweep Malfunction		
651	Air in System	781	Tire Leakage Excessive
652	Automatic Align Time Excessive	782	Tire Tread Area Defective - Use Cut, Delaminated, Punctured, Worn, etc., if applicable
653	Ground Speed Error Excessive		
654	Terminal Error - CEP Excessive	783	Tire Sidewall Damaged or Defective
655	Terminal Error - Range Excessive	784	Tire Bead Area Damaged or Defective
656	Terminal Error - Azimuth Excessive	785	Tire Inside Surface Damaged or Defective
660	Stripped	786	Tire Blowout
664	Tension Incorrect	787	Tire Removed - Normal Wear
690	Vibration Excessive	788	Tire Removed Due to Other Primary Cause, i.e., Brake or Wheel Failure, Hard Landing
692	Video Faulty		
693	Audio Faulty	799	No Defect
694	Audio and Video Faulty	800	No Defect - Component Removed and/or Reinstalled to Facilitate Other Maintenance
695	Sync Absent or Incorrect	801	No Defect - Removed for Modification
697	Faulty Tape - Program or Checkout	803	No Defect - Removed for Time Change
698	Faulty Card - Program or Checkout	804	No Defect - Removed for Scheduled Maintenance
710	Bearing Failing or Faulty	806	No Defect - Removed as Part of a Matched System
719	Broken or Frayed Bonding or Ground Wires		
720	Brush Failure/Worn Excessively	816	Impedance Incorrect
730	Loose	838	B Plus Incorrect
731	Battle Damage	846	Delaminated
748	Frequency Erratic or Incorrect		
758	Obsolete Surplus		
770	Slip Ring or Commutator Failure		

CONFIGURATION FILE CODE LISTINGS - Continued

Failure Mode Codes Numerical Listing (Continued)

<u>CODE</u>	<u>DESCRIPTION</u>	<u>CODE</u>	<u>DESCRIPTION</u>
877	Transportation Damage	972	Damaged Input Probe
878	Weather Damage	973	Damaged Output Probe
900	Burned or Overheated	974	Does Not Track
901	Intermittent		Tuning Curve
910	Chipped	975	Filament to Cathode
916	Impending or Incipient		Short
	Failure Indicated by	981	Frequency Instability
	Spectrometric Oil	982	Frozen Tuning
	Analysis		Mechanism
931	Accidental or Inad-	983	Grid to Cathode
	vertent Operation,		Short
	Release or Activation	984	Grid to Plate Short
932	Does Not Engage Lock	985	High Body Current/
	or Unlock Correctly		Beam Interruption
935	Scored or Scratched	986	High Modulator
937	Overheated Cathode		Inverse
	Stem	987	Input Pulse
938	Power Output Dip		Distortion
947	Torn	988	Loss of Vacuum
955	Data Link High Error	989	Low Coolant Flow
	Rate		Rate
956	Abnormal Function of	990	No Focus Current
	Computer Mechanical	991	Out-of-Band
	Equipment		Frequency
957	No Display	992	Output Pulse
958	Incorrect Display		Distortion
959	Fails to Transfer to	993	RF Drive Improper
	Redundant Equipment	994	RF Feed-Thru
961	High Anode Current		Attenuated/
962	Low Power Electronic		Distorted
963	Broken Filament/	995	RF Feed-Thru Com-
	Cathode Terminal		pletely Interrupted
964	Poor Spectrum	996	RF Terminal
966	RF Window Suck-in,		Overheated
	Broken or Cracked	997	RF Window Burned
968	Dioding		
969	Cannot Resonate Input		
	Cavity		
970	Coolant Leak		
971	Cracked Cathode		
	Bushing		

CONFIGURATION FILE CODE LISTINGS - Continued

Inspection Methods Codes

1. BITE
2. BIM
3. Spectrographic Oil Analysis
4. Operational Visual Check
5. Operational Audio Check
6. Operational Vibratory Check
7. Operational Temperature Check
8. Functional Check
9. Static Visual Check
10. Manual Plan/Clearance Check
11. Precision Dimensional Check
12. Torque Check
13. Tension Check
14. Spring Rate Test
15. Vacuum Check
16. Pressure Test
17. Flow Rate Check
18. Optical Magnification Inspection
19. Dye Penetrant Inspection
20. Magnetic Particle Inspection
21. X-Ray Inspection
22. Elect/Avionic Check (Common Meters)
23. Elect/Avionic Check (Special Test Set)
24. Tap Test
25. Friction Check
26. Alignment Check
27. Time Check

APPENDIX VI

MASTER COMPONENT INSPECTION MIXES

COMPONENT CODE	MIX 1	MIX 2	MIX 3	MIX 4	MIX 5	MIX 6	MIX 7
110101	01 02	04 08	01 02	01 02	02 04	01 03	01 02
110102	01 02	01 02	01 02	01 02	01 02	01 02	01 02
110103	01 02	01 02	01 02	01 02	02 04	01 02	01 02
110104	01 02	04 08	02 04	04 08	02 04	01 02	01 05
110105	01 02	04 08	02 04	01 02	01 05	01 03	01 02
110106	01 02	04 08	02 04	04 08	01 05	01 03	01 05
110107	01 02	04 08	02 04	01 02	01 02	01 02	01 02
110108	01 02	04 08	01 02	01 02	01 02	01 02	01 02
110109	01 02	04 08	06 12	04 08	01 05	01 04	01 02
110110	01 02	04 08	02 04	04 08	01 09	01 07	04 12
110201	01 02	01 02	01 02	01 02	01 02	01 02	01 02
110202	01 02	01 02	01 02	01 02	01 02	01 02	01 02
110203	01 02	04 08	02 04	04 08	02 04	01 07	04 12
110204	01 02	04 08	02 04	01 02	02 04	01 02	01 02
110205	01 02	04 08	02 04	04 08	01 09	01 07	04 12
110301	01 02	04 08	01 02	01 02	02 04	01 03	01 02
110302	01 02	04 08	02 04	01 02	02 04	01 03	01 02
110303	01 02	04 08	02 04	04 08	02 04	01 03	01 05
110304	01 02	04 08	01 02	01 02	01 02	01 02	01 02
110305	01 02	04 08	02 04	04 08	01 05	01 07	01 05
110401	01 02	04 08	02 04	04 08	01 09	01 07	04 12
110402	01 02	04 08	02 04	04 08	01 09	01 07	04 12
110403	01 02	04 08	02 04	04 08	01 05	01 04	01 05
110404	01 02	04 08	02 04	04 08	01 09	01 07	04 12
110501	01 02	04 08	02 04	01 02	02 04	01 03	01 02
110502	01 02	04 08	02 04	04 08	01 05	01 07	01 05
110503	01 02	04 08	02 04	04 08	01 05	01 04	01 05
110601	01 02	04 08	02 04	04 08	01 05	01 07	01 05
110602	01 02	04 08	02 04	01 02	02 04	01 03	01 02
110603	01 02	04 08	02 04	04 08	02 04	01 03	01 05
110604	01 02	04 08	02 04	04 08	01 09	01 07	01 05
110605	01 02	04 08	02 04	04 08	01 09	01 07	04 12
110606	01 02	04 08	02 04	04 08	01 09	01 07	04 12
120101	01 02	04 08	02 04	04 08	02 04	01 04	04 12
120102	01 02	04 08	02 04	01 02	02 04	01 03	01 02
120103	01 02	04 08	02 04	04 08	01 09	01 07	04 12
120104	01 02	01 02	01 02	01 02	02 04	01 02	01 02
120105	01 02	04 08	06 12	04 08	01 05	01 04	01 05
120106	01 02	04 08	02 04	04 08	02 04	01 07	04 12
120107	01 02	04 08	02 04	04 08	02 04	01 07	04 12
120108	01 02	04 08	02 04	04 08	01 09	01 07	04 12
120109	01 02	04 08	06 12	04 08	01 05	01 04	01 05
120110	01 02	04 08	02 04	04 08	01 09	01 07	04 12
120111	01 02	04 08	02 04	04 08	02 04	01 07	04 12
120112	01 02	04 08	02 04	04 08	02 04	01 07	04 12
120201	01 02	04 08	02 04	04 08	02 04	01 04	01 05
120202	01 02	04 08	06 12	04 08	02 04	01 04	01 05
120203	01 02	04 08	02 04	04 08	01 09	01 07	04 12
120204	01 02	04 08	02 04	04 08	01 05	01 07	01 05
120301	01 02	04 08	02 04	04 08	01 09	01 07	04 12

<u>COMPONENT CODE</u>	<u>MIX 1</u>	<u>MIX 2</u>	<u>MIX 3</u>	<u>MIX 4</u>	<u>MIX 5</u>	<u>MIX 6</u>	<u>MIX 7</u>
120302	01 02	01 02	01 02	01 02	02 04	01 02	01 02
120401	01 02	04 08	02 04	04 08	02 04	01 03	01 05
120402	01 02	04 08	02 04	04 08	02 04	01 03	01 05
130101	01 02	01 02	01 02	01 02	01 02	01 02	01 02
130102	01 02	04 08	02 04	01 02	02 04	01 03	01 02
130103	01 02	04 08	01 02	01 02	02 04	01 03	01 02
130104	01 02	04 08	02 04	04 08	02 04	01 03	01 05
130105	01 02	01 02	01 02	01 02	02 04	01 02	01 02
130201	01 02	01 02	01 02	01 02	01 02	01 02	01 02
130202	01 02	01 02	01 02	01 02	01 02	01 02	01 02
130203	01 02	01 02	01 02	01 02	02 04	01 02	01 02
130204	01 02	04 08	02 04	01 02	02 04	01 03	01 02
130205	01 02	04 08	01 02	01 02	02 04	01 03	01 02
130207	01 02	04 08	02 04	04 08	01 05	01 02	01 05
130301	01 02	01 02	01 02	01 02	01 02	01 02	01 02
130302	01 02	01 02	01 02	01 02	01 02	01 02	01 02
130303	01 02	01 02	01 02	01 02	01 02	01 02	01 02
130304	01 02	01 02	01 02	01 02	02 04	01 02	01 02
130305	01 02	04 08	02 04	04 08	01 09	01 07	04 12
130306	01 02	04 08	02 04	04 08	01 09	01 07	04 12
130401	01 02	04 08	02 04	04 08	02 04	01 03	01 02
130402	01 02	04 08	02 04	01 02	02 04	01 03	01 02
130403	01 02	01 02	01 02	01 02	02 04	01 02	01 02
130501	01 02	04 08	02 04	01 02	02 04	01 03	01 02
130502	01 02	01 02	01 02	01 02	02 04	01 03	01 02
130503	01 02	01 02	01 02	01 02	01 02	01 02	01 02
140101	01 02	04 08	01 02	01 02	01 02	01 02	01 02
140102	01 02	04 08	02 04	04 08	01 02	01 02	01 05
140103	01 02	01 02	01 02	01 02	01 05	01 07	04 12
140104	01 02	04 08	02 04	01 02	02 04	01 03	01 02
140105	01 02	01 02	01 02	01 02	02 04	01 02	01 02
140106	01 02	04 08	02 04	04 08	02 04	01 02	01 05
140107	01 02	04 08	02 04	01 02	02 04	01 03	01 02
140108	01 02	04 08	02 04	04 08	01 09	01 07	04 12
140109	01 02	04 08	02 04	01 02	02 04	01 04	01 02
140201	01 02	04 08	01 02	01 02	01 02	01 02	01 02
140202	01 02	04 08	02 04	04 08	01 02	01 02	01 05
140203	01 02	04 08	02 04	01 02	02 04	01 03	01 02
140204	01 02	01 02	01 02	01 02	01 05	01 03	01 02
140205	01 02	04 08	02 04	01 02	02 04	01 03	01 02
140206	01 02	01 02	01 02	01 02	02 04	01 02	01 02
140207	01 02	04 08	02 04	04 08	02 04	01 02	01 05
140208	01 02	04 08	02 04	01 02	02 04	01 03	01 02
140209	01 02	01 02	01 02	01 02	01 02	01 02	01 02
140210	01 02	04 08	06 12	04 08	02 04	01 04	01 05
140301	01 02	04 08	02 04	01 02	02 04	01 03	01 02
140401	01 02	01 02	01 02	01 02	01 02	01 02	01 02
140403	01 02	04 08	01 02	01 02	01 02	01 02	01 02
140404	01 02	01 02	01 02	01 02	01 02	01 02	01 02
140405	01 02	04 08	02 04	04 08	02 04	01 07	04 12

<u>COMPONENT CODE</u>	<u>MIX 1</u>	<u>MIX 2</u>	<u>MIX 3</u>	<u>MIX 4</u>	<u>MIX 5</u>	<u>MIX 6</u>	<u>MIX 7</u>
140406	01 02	04 08	02 04	01 02	01 02	01 02	01 02
140501	01 02	04 08	02 04	04 08	02 04	01 07	04 12
140502	01 02	04 08	02 04	04 08	02 04	01 03	01 05
140503	01 02	04 08	02 04	04 08	02 04	01 07	04 12
140504	01 02	04 08	02 04	01 02	02 04	01 03	01 02
140505	01 02	01 02	01 02	01 02	02 04	01 02	01 02
140506	01 02	04 08	02 04	01 02	02 04	01 02	01 02
140507	01 02	04 08	02 04	04 08	02 04	01 03	01 05
140508	01 02	04 08	02 04	04 08	01 05	01 04	01 05
140509	01 02	04 08	06 12	04 08	01 05	01 04	01 05
140510	01 02	04 08	02 04	01 02	02 04	01 03	01 02
140511	01 02	04 08	02 04	04 08	01 05	01 04	01 05
140512	01 02	04 08	01 02	01 02	02 04	01 02	01 02
140601	01 02	04 08	01 02	01 02	01 02	01 02	01 02
140602	01 02	01 02	01 02	01 02	01 02	01 02	01 02
140701	01 02	04 08	02 04	01 02	02 04	01 04	01 02
140702	01 02	01 02	01 02	01 02	02 04	01 03	01 02
140703	01 02	04 08	02 04	01 02	02 04	01 03	01 02
140801	01 02	04 08	02 04	04 08	01 02	01 02	01 05
140802	01 02	04 08	02 04	04 08	01 09	01 07	04 12
140803	01 02	04 08	02 04	04 08	01 02	01 02	01 05
150101	01 02	01 02	01 02	01 02	01 02	01 02	01 02
150102	01 02	04 08	02 04	04 08	02 04	01 03	01 05
150103	01 02	01 02	01 02	01 02	02 04	01 02	01 02
150104	01 02	01 02	01 02	01 02	02 04	01 07	04 12
150105	01 02	01 02	01 02	01 02	02 04	01 07	04 12
150106	01 02	04 08	02 04	01 02	02 04	01 03	01 02
150107	01 02	04 08	02 04	04 08	03 11	01 07	04 12
150108	01 02	01 02	01 02	01 02	01 02	01 02	01 02
150109	01 02	01 02	01 02	01 02	01 02	01 02	01 02
150111	01 02	04 08	02 04	01 02	02 04	01 03	01 02
150112	01 02	04 08	02 04	04 08	03 11	01 07	04 12
150113	01 02	04 08	02 04	04 08	01 05	01 04	01 05
150114	01 02	01 02	01 02	01 02	01 02	01 02	01 02
150115	01 02	04 08	01 02	01 02	02 04	01 03	01 02
150116	01 02	04 08	02 04	01 02	01 02	01 03	01 02
150117	01 02	01 02	01 02	01 02	01 02	01 02	01 02
150118	01 02	04 08	02 04	01 02	01 02	01 02	01 02
150119	01 02	04 08	02 04	01 02	02 04	01 03	01 02
150120	01 02	04 08	02 04	01 02	02 04	01 03	01 02
150121	01 02	04 08	02 04	01 02	02 04	01 03	01 02
150122	01 02	04 08	02 04	01 02	01 02	01 02	01 02
150123	01 02	01 02	01 02	01 02	01 02	01 02	01 02
150201	01 02	01 02	01 02	01 02	01 02	01 02	01 02
150202	01 02	01 02	01 02	01 02	01 02	01 02	01 02
150203	01 02	01 02	01 02	01 02	01 02	01 02	01 02
150204	01 02	01 02	01 02	01 02	01 02	01 07	04 12
220101	01 02	04 08	02 04	04 08	01 02	01 02	01 05
220201	01 02	04 08	06 12	04 08	01 05	01 04	01 02
220202	01 02	04 08	02 04	04 08	03 11	01 07	04 12

<u>COMPONENT CODE</u>	<u>MIX 1</u>	<u>MIX 2</u>	<u>MIX 3</u>	<u>MIX 4</u>	<u>MIX 5</u>	<u>MIX 6</u>	<u>MIX 6</u>
220203	01 02	04 08	02 04	04 08	03 11	01 07	04 12
220204	01 02	04 08	02 04	01 02	02 04	01 03	01 02
220301	01 02	04 08	02 04	04 08	01 02	01 02	01 05
220302	01 02	04 08	02 04	04 08	02 04	01 03	01 05
220303	01 02	04 08	02 04	04 08	02 04	01 03	01 05
220305	01 02	04 08	02 04	04 08	01 02	01 02	01 05
220306	01 02	04 08	02 04	04 08	01 05	01 04	01 05
220307	01 02	04 08	02 04	04 08	02 04	01 03	01 05
220308	01 02	04 08	02 04	01 02	02 04	01 03	01 02
220309	01 02	04 08	01 02	01 02	02 04	01 03	01 02
220310	01 02	04 08	02 04	04 08	02 04	01 03	04 12
220311	01 02	04 08	02 04	04 08	02 04	01 03	01 05
220401	01 02	04 08	01 02	01 02	02 04	01 03	01 02
220402	01 02	04 08	02 04	04 08	02 04	01 03	01 05
220403	01 02	04 08	02 04	04 08	02 04	01 03	01 02
220404	01 02	04 08	06 12	04 08	01 05	01 04	01 05
220405	01 02	04 08	02 04	04 08	02 04	02 08	04 12
220501	01 02	04 08	02 04	04 08	02 04	02 08	04 12
220502	01 02	04 08	02 04	04 08	02 04	02 08	04 12
220503	01 02	01 02	01 02	01 02	02 04	01 02	01 02
220601	01 02	04 08	02 04	04 08	02 04	02 08	04 12
220602	01 02	04 08	02 04	04 08	03 11	02 08	04 12
220603	01 02	04 08	02 04	04 08	02 04	01 03	01 05
220701	01 02	04 08	02 04	04 08	03 11	02 08	04 12
220702	01 02	04 08	02 04	04 08	02 04	02 08	04 12
220703	01 02	04 08	02 04	04 08	02 04	02 08	04 12
220704	01 02	04 08	02 04	04 08	02 04	01 04	01 05
240101	01 02	04 08	02 04	01 02	02 04	01 03	01 02
240201	01 02	04 08	02 04	01 02	01 02	01 02	01 02
240202	01 02	04 08	02 04	01 02	01 02	01 02	01 02
240204	01 02	04 08	02 04	04 08	03 11	02 08	04 12
240301	01 02	01 02	01 02	01 02	02 04	01 02	01 02
240302	01 02	04 08	02 04	04 08	02 04	01 03	04 12
240303	01 02	04 08	02 04	04 08	02 04	01 03	01 05
240304	01 02	01 02	01 02	01 02	02 04	01 03	01 02
240305	01 02	04 08	02 04	04 08	02 04	01 03	01 05
240306	01 02	04 08	02 04	04 08	01 05	01 04	01 05
240307	01 02	04 08	02 04	04 08	01 05	01 04	01 05
240308	01 02	04 08	02 04	04 08	02 04	02 08	04 12
240401	01 02	04 08	02 04	04 08	02 04	02 08	04 12
240402	01 02	04 08	02 04	04 08	02 04	01 03	01 05
240403	01 02	04 08	02 04	04 08	02 04	02 08	04 12
240404	01 02	04 08	02 04	04 08	02 04	02 08	04 12
240501	01 02	04 08	02 04	04 08	01 05	01 04	01 05
240502	01 02	04 08	02 04	04 08	03 11	02 08	04 12
240503	01 02	04 08	02 04	04 08	02 04	02 08	04 12
240601	01 02	04 08	02 04	04 08	02 04	01 03	01 05
240602	01 02	04 08	02 04	04 08	02 04	01 04	01 05
240603	01 02	04 08	02 04	04 08	03 11	02 08	04 12
240604	01 02	04 08	02 04	04 08	02 04	01 03	04 12

<u>COMPONENT CODE</u>	<u>MIX 1</u>	<u>MIX 2</u>	<u>MIX 3</u>	<u>MIX 4</u>	<u>MIX 5</u>	<u>MIX 6</u>	<u>MIX 7</u>
240701	01 02	01 02	01 02	01 02	01 02	01 02	01 02
240702	01 02	04 08	02 04	04 08	02 04	02 05	02 06
240703	01 02	01 02	01 02	01 02	01 02	01 02	01 02
240704	01 02	04 08	01 02	01 02	02 04	01 03	01 02
240705	01 02	04 08	02 04	01 02	02 04	02 05	01 02
240801	01 02	04 08	02 04	04 08	03 11	02 08	04 12
240802	01 02	04 08	02 04	04 08	01 05	02 05	02 06
240901	01 02	04 08	02 04	04 08	01 05	02 05	02 06
240902	01 02	04 08	02 04	04 08	01 05	02 08	04 12
260101	01 02	04 08	01 02	01 02	01 02	01 02	01 02
260102	01 02	04 08	02 04	04 08	01 05	02 05	02 06
260103	01 02	04 08	02 04	01 02	02 04	01 03	01 02
260104	01 02	04 08	02 04	04 08	01 05	02 05	02 06
260105	01 02	04 08	02 04	01 02	02 04	01 02	01 02
260106	01 02	04 08	06 12	04 08	01 05	02 08	02 06
260107	01 02	04 08	01 02	01 02	02 04	01 02	01 02
260201	01 02	04 08	02 04	01 02	02 04	01 03	01 02
260202	01 02	04 08	02 04	04 08	01 05	02 05	02 06
260203	01 02	04 08	02 04	01 02	02 04	01 03	01 02
260204	01 02	04 08	02 04	04 08	01 05	02 05	02 06
260205	01 02	04 08	02 04	01 02	02 04	01 02	01 02
260206	01 02	04 08	06 12	04 08	01 05	02 08	02 06
260301	01 02	01 02	01 02	01 02	02 04	01 02	01 02
260302	01 02	04 08	02 04	01 02	02 04	01 02	01 02
260401	01 02	04 08	02 04	01 02	02 04	01 03	01 02
260402	01 02	04 08	02 04	01 02	02 04	01 03	01 02
260403	01 02	04 08	02 04	04 08	01 05	02 05	02 06
260501	01 02	04 08	02 04	04 08	01 02	01 02	02 06
260502	01 02	04 08	02 04	04 08	01 02	01 02	04 12
260503	01 02	01 02	01 02	01 02	01 02	01 02	01 02
260601	01 02	04 08	02 04	04 08	03 11	02 08	04 12
260602	01 02	01 02	01 02	01 02	02 04	01 02	01 02
260603	01 02	01 02	01 02	01 02	01 02	01 02	01 02
260604	01 02	01 02	01 02	01 02	01 02	01 02	01 02
260605	01 02	01 02	01 02	01 02	01 02	01 02	01 02
260606	01 02	01 02	01 02	01 02	01 02	01 02	01 02
260607	01 02	01 02	01 02	01 02	02 04	01 02	01 02
260608	01 02	04 08	02 04	01 02	02 04	01 02	01 02
260701	01 02	04 08	02 04	04 08	02 04	02 04	02 06
260702	01 02	04 08	02 04	04 08	01 05	02 05	02 06
260703	01 02	04 08	02 04	04 08	01 05	02 08	04 12
260704	01 02	04 08	02 04	04 08	02 04	02 08	04 12
260705	01 02	04 08	02 04	04 08	02 04	02 04	04 12
260706	01 02	04 08	02 04	04 08	02 04	02 08	04 12
260707	01 02	04 08	02 04	04 08	02 04	02 05	02 06
260801	01 02	01 02	01 02	01 02	01 02	01 02	01 02
260802	01 02	04 08	01 02	01 02	02 04	02 04	01 02
260803	01 02	04 08	01 02	01 02	02 04	02 04	01 02
260804	01 02	04 08	02 04	04 08	01 05	02 05	02 06
260901	01 02	01 02	01 02	01 02	01 02	01 02	01 02

COMPONENT CODE	MIX 1	MIX 2	MIX 3	MIX 4	MIX 5	MIX 6	MIX 7
260902	01 02	04 08	02 04	04 08	03 11	02 08	04 12
260903	01 02	04 08	02 04	01 02	02 04	02 04	01 02
260904	01 02	04 08	02 04	04 08	02 04	02 08	04 12
260905	01 02	04 08	02 04	04 08	02 04	02 08	04 12
260906	01 02	04 08	02 04	04 08	01 02	01 02	02 06
260907	01 02	04 08	02 04	01 02	02 04	02 04	01 02
290101	01 02	04 08	01 02	01 02	02 04	02 04	01 02
290102	01 02	04 08	02 04	01 02	02 04	02 04	01 02
290103	01 02	04 08	02 04	01 02	02 04	02 04	01 02
290201	01 02	01 02	01 02	01 02	01 02	01 02	01 02
290202	01 02	01 02	01 02	01 02	02 04	01 02	01 02
290203	01 02	01 02	01 02	01 02	02 04	01 02	01 02
290204	01 02	04 08	02 04	04 08	01 05	02 05	02 06
290205	01 02	04 08	01 02	01 02	02 04	02 04	01 02
290206	01 02	04 08	02 04	04 08	01 05	02 05	02 06
290207	01 02	04 08	02 04	04 08	03 11	02 08	04 12
290208	01 02	01 02	01 02	01 02	01 02	01 02	01 02
290301	01 02	01 02	01 02	01 02	01 02	01 02	01 02
290302	01 02	01 02	01 02	01 02	01 02	01 02	01 02
290303	01 02	04 08	02 04	04 08	02 04	02 08	04 12
290401	01 02	04 08	02 04	04 08	02 04	02 05	02 06
290402	01 02	04 08	02 04	04 08	02 04	02 04	02 06
290403	01 02	04 08	02 04	04 08	03 11	02 08	04 12
290501	01 02	04 08	02 04	04 08	01 05	02 05	02 06
290502	01 02	04 08	02 04	04 08	02 04	02 05	02 06
290601	01 02	04 08	02 04	04 08	01 05	02 05	02 06
290602	01 02	04 08	02 04	04 08	01 05	02 08	02 06
290603	01 02	04 08	02 04	04 08	01 05	02 05	02 06
290604	01 02	04 08	02 04	04 08	01 05	02 08	04 12
290701	01 02	04 08	02 04	04 08	03 07	02 05	02 06
290702	01 02	04 08	02 04	04 08	03 11	02 08	04 12
290703	01 02	04 08	02 04	04 08	02 04	02 08	04 12
290704	01 02	04 08	02 04	04 08	01 02	01 02	02 06
290705	01 02	01 02	01 02	01 02	01 02	01 02	01 02
290706	01 02	04 08	02 04	01 02	02 04	02 04	01 02
290707	01 02	04 08	02 04	01 02	02 04	02 04	01 02
290801	01 02	01 02	01 02	01 02	01 02	01 02	01 02
290802	01 02	01 02	01 02	01 02	02 04	01 02	01 02
290803	01 02	01 02	01 02	01 02	03 07	02 08	04 12
290804	01 02	01 02	01 02	01 02	03 07	02 04	01 02
290805	01 02	01 02	01 02	01 02	02 04	02 04	01 02
290806	01 02	04 08	02 04	04 08	03 11	02 08	04 12
290807	01 02	01 02	01 02	01 02	01 02	01 02	01 02
290808	01 02	04 08	06 12	04 08	02 04	02 05	02 06
290809	01 02	04 08	02 04	04 08	01 02	01 02	02 06
290810	01 02	04 08	02 04	04 08	03 11	02 08	04 12
290811	01 02	01 02	01 02	01 02	01 02	01 02	01 02
290812	01 02	04 08	02 04	04 08	03 11	02 08	04 12
290901	01 02	04 08	02 04	04 08	01 02	01 02	02 06
290902	01 02	04 08	02 04	04 08	01 02	01 02	02 06

COMPONENT CODE	MIX 1	MIX 2	MIX 3	MIX 4	MIX 5	MIX 6	MIX 7
290903	01 02	04 08	02 04	04 08	01 02	01 02	02 06
291001	01 02	04 08	02 04	04 08	02 04	04 10	08 16
291002	01 02	04 08	02 04	01 02	02 04	02 04	01 02
291003	01 02	04 08	02 04	01 02	03 07	04 10	01 02
291004	01 02	04 08	01 02	01 02	02 04	02 04	01 02
291005	01 02	04 08	02 04	04 08	02 04	04 10	08 16
291006	01 02	04 08	02 04	04 08	03 11	04 10	08 16
291007	01 02	04 08	02 04	04 08	02 04	02 05	02 06
410101	01 02	04 08	02 04	04 08	05 13	04 10	08 16
410102	01 02	04 08	02 04	04 08	05 13	04 10	02 06
410103	01 02	04 08	02 04	04 08	05 13	04 10	08 16
410104	01 02	04 08	02 04	04 08	05 13	04 10	08 16
420101	01 02	01 02	01 02	01 02	01 02	01 02	08 16
420102	01 02	04 08	02 04	04 08	02 04	01 02	02 06
420103	01 02	04 08	02 04	01 02	03 07	04 10	08 16
420104	01 02	04 08	02 04	04 08	05 13	04 10	08 16
420105	01 02	04 08	02 04	01 02	03 07	04 10	01 02
420106	01 02	04 08	02 04	04 08	02 04	04 10	08 16
420107	01 02	04 08	02 04	04 08	03 07	03 06	02 06
420108	01 02	01 02	01 02	01 02	02 04	01 02	01 02
420109	01 02	04 08	01 02	01 02	02 04	02 04	01 02
420201	01 02	01 02	01 02	01 02	01 02	01 02	01 02
420202	01 02	04 08	02 04	04 08	02 04	01 02	08 16
420203	01 02	04 08	02 04	01 02	03 07	02 04	01 02
420204	01 02	04 08	02 04	04 08	05 13	04 10	08 16
420205	01 02	04 08	02 04	01 02	02 04	02 04	01 02
420206	01 02	01 02	01 02	01 02	01 02	01 02	01 02
420207	01 02	04 08	02 04	01 02	01 02	01 02	01 02
420301	01 02	04 08	02 04	04 08	05 13	04 10	08 16
420302	01 02	04 08	02 04	04 08	01 02	01 02	01 02
440101	01 02	04 08	02 04	04 08	02 04	02 04	08 16
440102	01 02	04 08	02 04	04 08	02 04	02 04	08 16
440103	01 02	01 02	01 02	01 02	02 04	02 04	01 02
440201	01 02	01 02	01 02	01 02	01 02	01 02	01 02
440202	01 02	01 02	01 02	01 02	01 02	02 04	01 02
440203	01 02	04 08	02 04	01 02	02 04	02 04	01 02
440204	01 02	04 08	02 04	04 08	01 02	01 02	02 06
440205	01 02	04 08	02 04	01 02	02 04	02 04	01 02
440206	01 02	04 08	02 04	04 08	05 13	02 04	08 16
450101	01 02	01 02	01 02	01 02	01 02	01 02	01 02
450102	01 02	01 02	01 02	01 02	01 02	01 02	01 02
450103	01 02	01 02	01 02	01 02	01 02	01 02	01 02
450104	01 02	04 08	02 04	01 02	02 04	01 02	01 02
450105	01 02	01 02	01 02	01 02	01 02	01 02	01 02
450106	01 02	04 08	02 04	04 08	05 13	04 10	08 16
450107	01 02	04 08	02 04	04 08	03 07	03 06	02 06
450108	01 02	04 08	02 04	04 08	03 07	03 06	02 06
450109	01 02	04 08	06 12	04 08	03 07	03 06	02 06
450110	01 02	01 02	01 02	01 02	02 04	02 04	08 16
450111	01 02	01 02	01 02	01 02	01 02	01 02	01 02

<u>COMPONENT CODE</u>	<u>MIX 1</u>	<u>MIX 2</u>	<u>MIX 3</u>	<u>MIX 4</u>	<u>MIX 5</u>	<u>MIX 6</u>	<u>MIX 7</u>
450112	01 02	04 08	02 04	04 08	02 04	03 06	02 06
450201	01 02	04 08	02 04	04 08	02 04	04 10	08 16
450202	01 02	04 08	02 04	04 08	02 04	02 05	02 06
450203	01 02	04 08	02 04	04 08	01 02	04 10	08 16
450204	01 02	01 02	01 02	01 02	01 02	01 02	01 02
450206	01 02	04 08	02 04	04 08	02 04	02 05	02 06
450207	01 02	04 08	02 04	01 02	02 04	02 04	01 02
450208	01 02	04 08	02 04	04 08	03 07	03 06	02 06
450301	01 02	04 08	02 04	04 08	03 07	03 06	02 06
450401	01 02	04 08	01 02	01 02	02 04	02 04	01 02
450402	01 02	04 08	02 04	04 08	05 13	04 10	08 16
450403	01 02	04 08	02 04	04 08	02 04	04 10	08 16
450404	01 02	01 02	01 02	01 02	02 04	01 02	01 02
450405	01 02	04 08	01 02	01 02	02 04	02 04	01 02
460101	01 02	04 08	02 04	04 08	02 04	02 04	03 07
460102	01 02	01 02	01 02	01 02	02 04	02 04	01 02
460103	01 02	01 02	01 02	01 02	02 04	02 04	01 02
460104	01 02	04 08	02 04	04 08	03 07	03 06	03 07
460105	01 02	04 08	02 04	04 08	05 13	04 10	08 16
460106	01 02	04 08	02 04	04 08	02 04	03 06	03 07
460108	01 02	04 08	02 04	04 08	05 13	04 10	08 16
460109	01 02	04 08	02 04	04 08	03 07	03 06	03 07
460110	01 02	04 08	02 04	04 08	03 07	03 06	03 07
460201	01 02	04 08	02 04	04 08	03 07	03 06	03 07
460202	01 02	04 08	02 04	04 08	05 13	04 10	08 16
460203	01 02	04 08	02 04	04 08	02 04	04 10	08 16
460204	01 02	04 08	02 04	04 08	02 04	03 06	03 07
490101	01 02	04 08	02 04	04 08	03 07	04 10	03 07
490102	01 02	04 08	02 04	04 08	03 07	04 10	08 16
490103	01 02	04 08	02 04	04 08	03 07	03 06	03 07
490104	01 02	04 08	02 04	04 08	03 07	02 04	03 07
490201	01 02	04 08	02 04	04 08	03 07	04 10	03 07
490202	01 02	04 08	02 04	04 08	03 07	03 06	03 07
490203	01 02	04 08	02 04	01 02	02 04	02 04	01 02
490204	01 02	04 08	02 04	04 08	02 04	03 06	03 07
490301	01 02	04 08	02 04	04 08	03 07	04 10	08 16
490302	01 02	04 08	02 04	04 08	03 07	05 11	03 07
490303	01 02	04 08	02 04	04 08	05 13	04 10	08 16
490304	01 02	04 08	02 04	04 08	05 13	04 10	08 16
490305	01 02	04 08	02 04	04 08	05 13	04 10	08 16
490206	01 02	04 08	02 04	04 08	03 07	03 06	03 07
490307	01 02	04 08	06 12	04 08	03 07	04 10	03 07
490401	01 02	04 08	02 04	04 08	05 13	04 10	08 16
490402	01 02	04 08	02 04	04 08	02 04	03 06	03 07
490501	01 02	04 08	02 04	04 08	03 07	03 06	03 07
490502	01 02	04 08	02 04	04 08	03 07	04 10	08 16
490503	01 02	04 08	02 04	04 08	03 07	03 06	03 07
490504	01 02	04 08	01 02	01 02	02 04	02 04	01 02
490601	01 02	04 08	02 04	04 08	03 07	03 06	03 07
490602	01 02	04 08	02 04	04 08	02 04	04 10	08 16

<u>COMPONENT CODE</u>	<u>MIX 1</u>	<u>MIX 2</u>	<u>MIX 3</u>	<u>MIX 4</u>	<u>MIX 5</u>	<u>MIX 6</u>	<u>MIX 7</u>
490603	01 02	04 08	02 04	01 02	02 04	02 04	01 02
490604	01 02	01 02	01 02	01 02	02 04	01 02	01 02
490605	01 02	04 08	02 04	04 08	07 15	04 10	08 16
490606	01 02	04 08	02 04	04 08	07 15	04 10	08 16
490607	01 02	04 08	02 04	04 08	01 02	01 02	03 07
490608	01 02	04 08	02 04	01 02	02 04	02 04	01 02
490609	01 02	01 02	01 02	01 02	01 02	01 02	01 02
490610	01 02	04 08	02 04	01 02	02 04	02 04	01 02
490611	01 02	04 08	02 04	01 02	02 04	02 04	01 02
490612	01 02	04 08	02 04	04 08	02 04	04 10	08 16
490613	01 02	04 08	02 04	04 08	03 05	04 10	03 07
490614	01 02	04 08	02 04	04 08	07 15	04 10	08 16
490615	01 02	04 08	02 04	04 08	07 15	04 10	08 16
490701	01 02	04 08	02 04	01 02	02 04	02 04	01 02
490702	01 02	01 02	01 02	01 02	02 04	01 02	01 02
490703	01 02	04 08	02 04	04 08	03 07	04 10	03 07
490704	01 02	04 08	02 04	01 02	07 15	02 04	01 02
490705	01 02	04 08	02 04	04 08	07 15	05 11	08 16
490706	01 02	04 08	02 04	04 08	02 04	03 06	03 07
490801	01 02	04 08	02 04	04 08	07 15	05 11	08 16
490802	01 02	04 08	02 04	04 08	07 15	05 11	08 16
490803	01 02	04 08	02 04	04 08	03 07	05 11	03 07
490901	01 02	04 08	01 02	01 02	02 04	02 04	01 02
490902	01 02	04 08	02 04	04 08	02 04	02 04	03 07
491001	01 02	04 08	02 04	04 08	07 15	05 11	08 16
491002	01 02	04 08	02 04	04 08	02 04	02 04	03 07
491003	01 02	04 08	02 04	04 08	07 15	05 11	08 16
510101	01 02	04 08	01 02	01 02	02 04	02 04	01 02
510102	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510103	01 02	04 08	02 04	04 08	01 02	01 02	03 07
510104	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510105	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510106	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510107	01 02	04 08	02 04	04 08	01 02	01 02	03 07
510108	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510109	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510201	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510202	01 02	04 08	02 04	04 08	02 04	02 04	08 16
510203	01 02	04 08	02 04	04 08	02 04	02 04	08 16
510204	01 02	04 08	02 04	04 08	01 02	01 02	03 07
510205	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510206	01 02	01 02	01 02	01 02	02 04	01 02	01 02
510207	01 02	01 02	01 02	01 02	02 04	05 11	08 16
510208	01 02	01 02	01 02	01 02	02 04	02 04	08 16
510301	01 02	04 08	02 04	04 08	03 07	02 04	03 07
510302	01 02	04 08	02 04	04 08	07 15	05 11	08 16
510303	01 02	04 08	02 04	04 08	03 07	02 04	03 07
510304	01 02	04 08	02 04	04 08	03 07	05 11	08 16
510305	01 02	04 08	02 04	04 08	03 07	03 06	03 07
510401	01 02	01 02	01 02	01 02	02 04	01 02	01 02

<u>COMPONENT CODE</u>	<u>MIX 1</u>	<u>MIX 2</u>	<u>MIX 3</u>	<u>MIX 4</u>	<u>MIX 5</u>	<u>MIX 6</u>	<u>MIX 7</u>
510501	01 02	04 08	02 04	04 08	02 04	02 04	08 16
510502	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510503	01 02	01 02	01 02	01 02	01 02	01 02	01 02
510504	01 02	04 08	02 04	04 08	01 02	01 02	03 07
510505	01 02	04 08	02 04	04 08	02 04	02 04	03 07
510601	01 02	01 02	01 02	01 02	02 04	01 02	01 02
510602	01 02	04 08	02 04	04 08	02 04	01 02	03 07
510603	01 02	04 08	02 04	01 02	02 04	02 04	01 02
510604	01 02	04 08	02 04	04 08	07 15	05 11	08 16
510605	01 02	01 02	01 02	01 02	02 04	01 02	01 02
510606	01 02	04 08	02 04	04 08	02 04	01 02	03 07
510607	01 02	04 08	01 02	01 02	02 04	02 04	01 02
510608	01 02	04 08	02 04	04 08	01 02	01 02	03 07
510609	01 02	04 08	02 04	04 08	01 02	01 02	03 07
510610	01 02	04 08	02 04	04 08	02 04	02 04	03 07
510611	01 02	01 02	01 02	01 02	01 02	01 02	01 02
510612	01 02	04 08	02 04	04 08	02 04	02 04	03 07
510701	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510702	01 02	04 08	02 04	01 02	02 04	02 04	01 02
510703	01 02	04 08	02 04	04 08	02 04	02 04	08 16
510704	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510705	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510706	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510707	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510708	01 02	04 08	02 04	04 08	07 15	05 11	08 16
510709	01 02	04 08	02 04	04 08	07 15	05 11	08 16
510801	01 02	01 02	01 02	01 02	01 02	01 02	01 02
510802	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510803	01 02	04 08	02 04	04 08	03 07	05 11	08 16
510804	01 02	04 08	02 04	04 08	02 04	02 04	03 07
510901	01 02	04 08	02 04	04 08	02 04	05 11	08 16
510902	01 02	01 02	01 02	01 02	01 02	01 02	01 02
510903	01 02	04 08	02 04	04 08	01 02	01 02	03 07
511101	01 02	04 08	02 04	04 08	07 15	05 11	08 16
511102	01 02	04 08	02 04	04 08	07 15	05 11	08 16
511103	01 02	04 08	01 02	01 02	02 04	02 04	01 02
910101	01 02	04 08	02 04	04 08	02 04	02 04	03 07
910102	01 02	04 08	02 04	04 08	02 04	02 04	03 07
910201	01 02	04 08	02 04	04 08	07 15	05 11	08 16
910301	01 02	04 08	06 12	04 08	03 07	05 11	03 07

APPENDIX VII
FLIGHT-READINESS INSPECTION MIX

<u>COMPONENT CODE</u>	<u>PRE-FLT</u>	<u>POST-FLT</u>	<u>DAILY</u>
110101	1		1
110102	1		1
110103	1		1
110104	1		1
110105			1
110106			
110107	1		1
110108	1		1
110109			
110110	1		1
110201	1		1
110202	1		1
110203			
110204	1		1
110205			
110301	1		1
110302	1		1
110303	1		1
110304	1		1
110305	1		1
110401			
110402			
110403			1
110404			
110501			
110502			
110503			
110601			1
110602			
110603			
110604			
110605			
110606			
120101			
120102			
120103			
120104			
120105			
120106	1		1
120107	1		1
120108			
120109			
120110			
120111			
120112			
120201			
120202	1		1
120203			
120204			
120301			1

<u>COMPONENT CODE</u>	<u>PRE-FLT</u>	<u>POST-FLT</u>	<u>DAILY</u>
120302			1
120401			
120402			
130101		1	1
130102		1	1
130103			1
130104	1		1
130105			
130201	1		1
130202			1
130203			1
130204			1
130205			1
130207		1	1
130301			1
130302			1
130303			
130304			
130305			
130306			
130401			
130402			
130403			1
130501			
130502		1	1
130503			
140101			1
140102			
140103			
140104	1		1
140105	1		1
140106			
140107			
140108			
140109			
140201			1
140202			
140203			
140204			
140205	1		1
140206	1		1
140207			
140208			
140209			
140210			
140301	1		1
140401	1		1
140403	1		1
140404	1		1
140405			

<u>COMPONENT CODE</u>	<u>PRE-FLT</u>	<u>POST-FLT</u>	<u>DAILY</u>
140406	1		1
140501			
140502			
140503			
140504	1		1
140505	1		1
140506			
140507			
140508			
140509			
140510	1		1
140511			
140512			1
140601	1		1
140602	1		1
140701	1		1
140702	1		1
140703			
140801			
140802			
140803			
150101	1		1
150102			1
150103			1
150104			1
150105			1
150106	1		1
150107			
150108	1		1
150109	1		1
150111			1
150112			1
150113	1		1
150114	1		1
150115	1		1
150116	1		1
150117	1		1
150118			
150119			
150120			
150121			
150122	1		1
150123	1		1
150201	1		1
150202	1		1
150203	1		1
150204	1		1
220101		1	1
220201			
220202			

<u>COMPONENT CODE</u>	<u>PRE-FLT</u>	<u>POST-FLT</u>	<u>DAILY</u>
220203			
220204			
220301			
220302			
220303			
220305			
220306			
220307		1	1
220308			
220309		1	1
220310		1	1
220311		1	1
220401		1	1
220402			1
220403		1	1
220404		1	1
220405		1	1
220501			1
220502			
220503			
220601			
220602			
220603			
220701			
220702			
220703			
220704			
240101		1	1
240201	1		1
240202	1		1
240204			1
240301			
240302			
240303			
240304			
240305	1		1
240306			
240307			
240308		1	1
240401		1	1
240402		1	1
240403			1
240404		1	1
240501			1
240502			
240503			
240601			
240602			
240603			
240604			

<u>COMPONENT CODE</u>	<u>PRE-FLT</u>	<u>POST-FLT</u>	<u>DAILY</u>
240701			1
240702			
240703		1	1
240704			
240705		1	1
240801			
240802			
240901			
240902			
260101			1
260102			1
260103			1
260104			1
260105			1
260106			
260107			1
260201			1
260202			1
260203			1
260204			1
260205			1
260206			
260301			1
260302			
260401			1
260402			1
260403			
260501			
260502			
260503			1
260601	1		1
260602	1		1
260603	1		1
260604	1		1
260605	1		1
260606	1		1
260607	1		1
260608	1		1
260701		1	1
260702			1
260703			
260704		1	1
260705			1
260706		1	1
260707			
260801	1		1
260802	1		1
260803	1		1
260804			
260901			1

<u>COMPONENT CODE</u>	<u>PRE-FLT</u>	<u>POST-FLT</u>	<u>DAILY</u>
260902			
260903			1
260904			
260905			
260906			
260907			
290101			1
290102			1
290103			1
290201	1		1
290202			
290203			
290204			
290205			
290206			
290207			
290208	1		1
290301	1		1
290302	1		1
290303		1	1
290401		1	1
290402			
290403			
290501			
290502		1	1
290601			
290602			
290603			
290604			
290701			
290702			
290703			
290704			
290705			1
290706			
290707			1
290801			1
290802			
290803			1
290804	1		1
290805	1		1
290806			
290807	1		1
290808			
290809			
290810			
290811			
290812			
290901			
290902			

<u>COMPONENT CODE</u>	<u>PRE-FLT</u>	<u>POST-FLT</u>	<u>DAILY</u>
290903			
291001		1	1
291002			1
291003			
291004			1
291005			
291006			
291007		1	1
410101			
410102			
410103			
410104			
420101			
420102			
420103			
420104			
420105			
420106			
420107			
420108			
420109			
420201			
420202			
420203			
420204			
420205			
420206	1		1
420207			1
420301			
420302			
440101	1		1
440102	1		1
440103	1		1
440201	1		1
440202	1		1
440203	1		1
440204	1		1
440205			
440206	1		1
450101		1	1
450102			1
450103			1
450104		1	1
450105		1	1
450106			
450107			
450108			
450109			
450110			
450111			

<u>COMPONENT CODE</u>	<u>PRE-FLT</u>	<u>POST-FLT</u>	<u>DAILY</u>
450112		1	1
450201		1	1
450202		1	1
450203			
450204	1		1
450206			
450207			
450208			
450301			
450401			1
450402			
450403			
450404			1
450405			
460101			
460102			
460103		1	1
460104		1	1
460105			
460106		1	1
460108			
460109			
460110	1		
460201			
460202			
460203			
460204		1	1
490101			1
490102			
490103			
490104			
490201			
490202			
490203			
490204			
490301			
490302			
490303			
490304			
490305			
490306			
490307			
490401			
490402			
490501			
490502			
490503			
490504			
490601			1
490602	1		1

<u>COMPONENT CODE</u>	<u>PRE-FLT</u>	<u>POST-FLT</u>	<u>DAILY</u>
490603			
490604			
490605			
490606			
490607	1		1
490608	1		1
490609	1		1
490610			
490611		1	1
490612			
490613			
490614			
490615			
490701			
490702			
490703			
490704			
490705			
490706			1
490801			
490802			
490803			
490901			
490902			
491001			
491002			
491003			
510101			1
510102			
510103			
510104			
510105			
510106			
510107			
510108			
510109			
510201			
510202			
510203			
510204			
510205			
510206			
510207			
510208			
510301	1		1
510302	1		1
510303			1
510304			
510305			
510401			

COMPONENT CODE	<u>PRE-FLT</u>	<u>POST-FLT</u>	<u>DAILY</u>
510501			
510502			
510503			
510504			
510505			
510601			1
510602			
510603			1
510604			
510605			1
510606			
510607			1
510608			
510609			1
510610			
510611			1
510612			
510701			1
510702			
510703			
510704			1
510705			
510706			1
510707			
510708			
510709			
510801			1
510802			1
510803			
510804			
510901			1
510902			1
510903			
511101			1
511102			1
511103			1
910101			
910102			
910201			
910301			

APPENDIX VIII

MODEL OPTION C OUTPUTS

INSPECTION SCHEME SUMMARY MATRIX

INSP SCHEME - 1

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.990	0.990	0.991	0.978
Mission Reliability	0.967	0.960	0.964	0.964	0.912
Availability	0.945	0.929	0.934	0.913	0.918
Norm - Scheduled	0.026	0.028	0.025	0.031	0.027
Norm - Unscheduled	0.031	0.044	0.043	0.057	0.057
MH/FH - Flt-Readiness Insp	0.309	0.448	0.527	1.196	1.085
MH/FH - Scheduled - Look	0.453	0.605	0.567	1.084	1.115
MH/FH - Scheduled - Fix	0.206	0.279	0.331	0.587	0.588
MH/FH - Unscheduled Maintenance	0.526	0.662	0.732	1.227	1.425
MH/FH - Total	1.491	1.993	2.156	4.093	4.211
Unscheduled MTBM	4.6	3.7	3.4	2.2	1.8

Average Utilization	71.0	81.0	71.0	61.0	51.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 2

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.991	0.988	0.988	0.988	0.973
Mission Reliability	0.958	0.949	0.953	0.954	0.891
Availability	0.951	0.932	0.934	0.913	0.917
Norm - Scheduled	0.010	0.011	0.009	0.011	0.010
Norm - Unscheduled	0.041	0.059	0.058	0.078	0.075
MH/FH - Flt-Readiness Insp	0.315	0.458	0.537	1.216	1.104
MH/FH - Scheduled - Look	0.170	0.227	0.211	0.396	0.413
MH/FH - Scheduled - Fix	0.069	0.093	0.110	0.198	0.196
MH/FH - Unscheduled Maintenance	0.679	0.871	0.977	1.659	1.860
MH/FH - Total	1.230	1.647	1.833	3.468	3.571
Unscheduled MTBM	3.6	2.9	2.6	1.7	1.4

Average Utilization	71.0	81.0	71.0	61.0	51.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 3

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.990	0.988	0.988	0.988	0.972
Mission Reliability	0.957	0.947	0.951	0.952	0.887
Availability	0.952	0.933	0.934	0.912	0.916
Norm - Scheduled	0.007	0.007	0.006	0.007	0.007
Norm - Unscheduled	0.043	0.062	0.061	0.082	0.078
MH/FH - Flt-Readiness Insp	0.316	0.460	0.539	1.220	1.108
MH/FH - Scheduled - Look	0.113	0.151	0.139	0.259	0.272
MH/FH - Scheduled - Fix	0.041	0.056	0.066	0.119	0.118
MH/FH - Unscheduled Maintenance	0.709	0.913	1.025	1.747	1.947
MH/FH - Total	1.178	1.578	1.769	3.343	3.443
Unscheduled MTBM	3.5	2.7	2.4	1.6	1.4

Average Utilization	71.0	81.0	71.0	61.0	51.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 4

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.989	0.990	0.978
Mission Reliability	0.963	0.954	0.959	0.961	0.912
Availability	0.947	0.931	0.934	0.913	0.918
Norm - Scheduled	0.019	0.018	0.018	0.026	0.027
Norm - Unscheduled	0.035	0.052	0.049	0.062	0.057
MH/FH - Flt-Readiness Insp	0.311	0.453	0.532	1.201	1.085
MH/FH - Scheduled - Look	0.331	0.392	0.415	0.912	1.115
MH/FH - Scheduled - Fix	0.147	0.175	0.235	0.491	0.588
MH/FH - Unscheduled Maintenance	0.592	0.780	0.838	1.333	1.425
MH/FH - Total	1.379	1.798	2.018	3.937	4.211
Unscheduled MTBM	4.1	3.2	3.0	2.1	1.8

Average Utilization	71.0	81.0	71.0	61.0	51.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 5

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.991	0.988	0.989	0.989	0.976
Mission Reliability	0.960	0.951	0.955	0.957	0.901
Availability	0.950	0.932	0.934	0.913	0.917
Norm - Scheduled	0.013	0.013	0.013	0.018	0.018
Norm - Unscheduled	0.039	0.057	0.055	0.071	0.066
MH/FH - Flt-Readiness Insp	0.314	0.456	0.535	1.210	1.095
MH/FH - Scheduled - Look	0.230	0.274	0.287	0.626	0.764
MH/FH - Scheduled - Fix	0.098	0.116	0.157	0.331	0.390
MH/FH - Unscheduled Maintenance	0.646	0.845	0.925	1.511	1.645
MH/FH - Total	1.286	1.690	1.902	3.676	3.892
Unscheduled MTBM	3.8	2.9	2.7	1.9	1.6

Average Utilization	71.0	81.0	71.0	61.0	51.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 6

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.991	0.988	0.988	0.989	0.975
Mission Reliability	0.959	0.949	0.954	0.955	0.896
Availability	0.951	0.932	0.934	0.913	0.917
Norm - Scheduled	0.010	0.010	0.010	0.014	0.014
Norm - Unscheduled	0.040	0.059	0.057	0.075	0.070
MH/FH - Flt-Readiness Insp	0.315	0.458	0.537	1.214	1.099
MH/FH - Scheduled - Look	0.180	0.215	0.224	0.482	0.588
MH/FH - Scheduled - Fix	0.074	0.087	0.118	0.249	0.294
MH/FH - Unscheduled Maintenance	0.673	0.877	0.968	1.602	1.750
MH/FH - Total	1.240	1.636	1.845	3.545	3.731
Unscheduled MTRM	3.6	2.8	2.6	1.8	1.5

Average Utilization	71.0	81.0	71.0	61.0	51.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.4
Look Phase Sched Insp Crew (Int)	2.0	2.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 7

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.995	0.994	0.994	0.994	0.984
Mission Reliability	0.979	0.976	0.977	0.978	0.943
Availability	0.922	0.918	0.924	0.905	0.909
Norm - Scheduled	0.059	0.056	0.049	0.065	0.056
Norm - Unscheduled	0.019	0.023	0.027	0.030	0.035
MH/FH - Flt-Readiness Insp	0.296	0.431	0.510	1.161	1.051
MH/FH - Scheduled - Lock	0.759	1.025	0.995	1.743	1.794
MH/FH - Scheduled - Fix	0.382	0.530	0.569	1.112	1.077
MH/FH - Unscheduled Maintenance	0.331	0.388	0.470	0.640	0.878
MH/FH - Total	1.768	2.375	2.545	4.656	4.801
Unscheduled MTBM	7.0	5.9	4.9	3.7	2.7

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	2.0	2.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 8					
	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.994	0.992	0.993	0.992	0.982
Mission Reliability	0.975	0.970	0.974	0.972	0.931
Availability	0.930	0.923	0.931	0.902	0.909
Norm - Scheduled	0.049	0.047	0.042	0.058	0.050
Norm - Unscheduled	0.022	0.030	0.027	0.040	0.042
MH/FH - Flt-Readiness Insp	0.303	0.441	0.519	1.183	1.071
MH/FH - Scheduled - Look	0.550	0.775	0.754	1.369	1.397
MH/FH - Scheduled - Fix	0.339	0.458	0.555	0.906	0.917
MH/FH - Unscheduled Maintenance	0.382	0.467	0.493	0.870	1.063
MH/FH - Total	1.574	2.141	2.321	4.328	4.448
Unscheduled MTBM	6.1	4.9	4.7	2.9	2.3

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	2.0	2.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 9

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.994	0.992	0.993	0.992	0.982
Mission Reliability	0.975	0.970	0.973	0.972	0.931
Availabilty	0.935	0.927	0.934	0.908	0.912
Norm - Scheduled	0.043	0.043	0.038	0.053	0.048
Norm - Unscheduled	0.021	0.030	0.028	0.039	0.040
MU/FH - Flt-Readiness Insp	0.303	0.440	0.519	1.185	1.072
MH/FH - Scheduled - Look	0.493	0.707	0.682	1.240	1.340
MH/FH - Scheduled - Fix	0.343	0.462	0.555	0.936	0.961
MH/FH - Unscheduled Maintenance	0.379	0.465	0.494	0.849	1.024
MH/FH - Total	1.517	2.074	2.251	4.210	4.397
Unscheduled MTBM	6.1	4.9	4.7	2.9	2.4

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	2.0	2.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 10A

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.977
Mission Reliability	0.965	0.958	0.961	0.961	0.908
Availability	0.946	0.932	0.936	0.912	0.916
Norm - Scheduled	0.023	0.023	0.021	0.028	0.026
Norm - Unscheduled	0.031	0.045	0.043	0.060	0.058
MH/FH - Flt-Readiness Insp	0.310	0.451	0.531	1.205	1.093
MH/FH - Scheduled - Look	0.259	0.372	0.357	0.646	0.700
MH/FH - Scheduled - Fix	0.194	0.257	0.311	0.537	0.548
MH/FH - Unscheduled Maintenance	0.539	0.688	0.755	1.280	1.468
MH/FH - Total	1.302	1.768	1.953	3.669	3.809
Unscheduled MTBM	4.4	3.5	3.2	2.1	1.7

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	2.0	2.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 10B

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.977
Mission Reliability	0.965	0.958	0.961	0.961	0.908
Availability	0.942	0.917	0.923	0.895	0.900
Norm - Scheduled	0.027	0.038	0.033	0.046	0.042
Norm - Unscheduled	0.031	0.045	0.043	0.060	0.058
MH/FH - Flt-Readiness Insp	0.310	0.451	0.531	1.205	1.093
MH/FH - Scheduled - Look	0.245	0.372	0.357	0.646	0.700
MH/FH - Scheduled - Fix	0.194	0.257	0.311	0.537	0.548
MH/FH - Unscheduled Maintenance	0.539	0.688	0.755	1.280	1.468
MH/FH - Total	1.288	1.768	1.953	3.669	3.809
Unscheduled MTBM	4.4	3.5	3.2	2.1	1.7

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	1.0	1.0	1.0	1.0
(Per)	1.0	2.0	2.0	3.0	3.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 10C

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.977
Mission Reliability	0.965	0.958	0.961	0.961	0.908
Availability	0.953	0.933	0.937	0.919	0.922
Norm - Scheduled	0.016	0.022	0.020	0.022	0.020
Norm - Unscheduled	0.031	0.045	0.043	0.060	0.058
MH/FH - Flt-Readiness Insp	0.310	0.451	0.531	1.205	1.093
MH/FH - Scheduled - Look	0.295	0.382	0.367	0.646	0.700
MH/FH - Scheduled - Fix	0.194	0.257	0.311	0.537	0.548
MH/FH - Unscheduled Maintenance	0.539	0.688	0.755	1.280	1.468
MH/FH - Total	1.338	1.778	1.962	3.669	3.809
Unscheduled MTBM	4.4	3.5	3.2	2.1	1.7

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	2.0	2.0	3.0	3.0
(Per)	3.0	4.0	4.0	5.0	5.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 11

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.993	0.990	0.991	0.992	0.982
Mission Reliability	0.970	0.961	0.968	0.969	0.931
Availability	0.942	0.931	0.937	0.910	0.912
Norm - Scheduled	0.032	0.028	0.029	0.045	0.048
Norm - Unscheduled	0.026	0.040	0.034	0.045	0.040
MH/FH - Flt-Readiness Insp	0.307	0.448	0.526	1.191	1.072
MH/FH - Scheduled - Look	0.359	0.456	0.496	1.042	1.340
MH/FH - Scheduled - Fix	0.273	0.318	0.449	0.828	0.961
MH/FH - Unscheduled Maintenance	0.452	0.620	0.604	0.965	1.024
MH/FH - Total	1.391	1.843	2.075	4.027	4.397
Unscheduled MTBM	5.2	3.9	3.9	2.6	2.4

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	2.0	2.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 12

Flight Reliability	OH-58	UH-1	AH-1	CH-47	CH-54
Mission Reliability	0.991	0.988	0.989	0.989	0.977
Availability	0.962	0.952	0.957	0.959	0.908
Norm - Scheduled	0.948	0.932	0.935	0.912	0.916
Norm - Unscheduled	0.017	0.015	0.015	0.024	0.026
MH/FH - Flt-Readiness Insp	0.035	0.053	0.050	0.064	0.058
MH/FH - Scheduled - Look	0.312	0.455	0.534	1.208	1.093
MH/FH - Scheduled - Fix	0.192	0.246	0.264	0.547	0.700
MH/FH - Unscheduled Maintenance	0.138	0.160	0.220	0.446	0.548
MH/FH - Total	0.601	0.796	0.854	1.381	1.468
Unscheduled MTBM	1.243	1.658	1.873	3.583	3.809
	4.0	3.1	2.8	1.9	1.7

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	2.0	2.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 13A

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.989	0.989	0.976
Mission Reliability	0.964	0.956	0.960	0.959	0.904
Availability	0.948	0.933	0.936	0.915	0.919
Norm - Scheduled	0.019	0.019	0.017	0.021	0.018
Norm - Unscheduled	0.034	0.048	0.046	0.064	0.063
MH/FH - Flt-Readiness Insp	0.311	0.452	0.532	1.205	1.094
MH/FH - Scheduled - Look	0.328	0.405	0.389	0.715	0.724
MH/FH - Scheduled - Fix	0.164	0.224	0.271	0.456	0.461
MH/FH - Unscheduled Maintenance	0.573	0.727	0.800	1.374	1.569
MH/FH - Total	1.376	1.807	1.992	3.749	3.848
Unscheduled MTBM	4.2	3.3	3.0	1.9	1.6

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 13B

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.989	0.989	0.976
Mission Reliability	0.964	0.956	0.960	0.959	0.904
Availability	0.936	0.925	0.930	0.910	0.915
Norm - Scheduled	0.031	0.027	0.024	0.026	0.022
Norm - Unscheduled	0.034	0.048	0.046	0.064	0.063
MH/FH - Flt-Readiness Insp	0.311	0.452	0.532	1.205	1.094
MH/FH - Scheduled - Look	0.287	0.405	0.389	0.715	0.724
MH/FH - Scheduled - Fix	0.164	0.224	0.271	0.456	0.461
MH/FH - Unscheduled Maintenance	0.573	0.727	0.800	1.374	1.569
MH/FH - Total	1.335	1.807	1.992	3.749	3.848
Unscheduled MTBM	4.2	3.3	3.0	1.9	1.6

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	3.0	3.0
(Per)	1.0	2.0	2.0	3.0	3.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 13C

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.989	0.989	0.976
Mission Reliability	0.964	0.956	0.960	0.959	0.904
Availablity	0.951	0.936	0.939	0.918	0.922
Norm - Scheduled	0.015	0.016	0.015	0.018	0.015
Norm - Unscheduled	0.034	0.048	0.046	0.064	0.063
MH/FH - Flt-Readiness Insp	0.311	0.452	0.532	1.205	1.094
MH/FH - Scheduled - Look	0.373	0.432	0.415	0.715	0.724
MH/FH - Scheduled - Fix	0.164	0.224	0.271	0.456	0.461
MH/FH - Unscheduled Maintenance	0.573	0.727	0.800	1.374	1.569
MH/FH - Total	1.421	1.834	2.018	3.749	3.848
Unscheduled MTBM	4.2	3.3	3.0	1.9	1.6

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	3.0	4.0	4.0	5.0	5.0
(Per)	3.0	4.0	4.0	5.0	5.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 14

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.990	0.988	0.988	0.988	0.974
Mission Reliability	0.959	0.950	0.954	0.954	0.893
Availability	0.951	0.933	0.935	0.914	0.918
Norm - Scheduled	0.011	0.011	0.009	0.012	0.010
Norm - Unscheduled	0.039	0.056	0.055	0.074	0.072
MH/FH - Flt-Readiness Insp	0.314	0.457	0.537	1.215	1.103
MH/FH - Scheduled - Look	0.183	0.222	0.216	0.400	0.410
MH/FH - Scheduled - Fix	0.091	0.117	0.144	0.261	0.257
MH/FH - Unscheduled Maintenance	0.656	0.847	0.941	1.590	1.793
MH/FH - Total	1.244	1.644	1.838	3.467	3.564
Unscheduled MTBM	3.7	2.9	2.6	1.7	1.4

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 20

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.991	0.989	0.989	0.989	0.975
Mission Reliability	0.961	0.952	0.956	0.956	0.896
Availability	0.949	0.931	0.934	0.913	0.917
Norm - Scheduled	0.014	0.015	0.013	0.016	0.014
Norm - Unscheduled	0.038	0.055	0.054	0.072	0.070
MH/FH - Flt-Readiness Insp	0.313	0.455	0.535	1.211	1.099
MH/FH - Scheduled - Look	0.240	0.321	0.300	0.568	0.588
MH/FH - Scheduled - Fix	0.103	0.140	0.164	0.299	0.294
MH/FH - Unscheduled Maintenance	0.641	0.819	0.916	1.546	1.750
MH/FH - Total	1.296	1.733	1.914	3.623	3.731
Unscheduled MTBM	3.8	3.0	2.7	1.8	1.5

Average Utilization	71.0	81.0	71.0	61.0	51.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 21A

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.994	0.992	0.992	0.991	0.979
Mission Reliability	0.970	0.964	0.967	0.967	0.918
Availability	0.940	0.930	0.933	0.912	0.916
Norm - Scheduled	0.032	0.031	0.027	0.035	0.030
Norm - Unscheduled	0.030	0.041	0.042	0.054	0.055
MH/FH - Flt-Readiness Insp	0.307	0.447	0.526	1.194	1.083
MH/FH - Scheduled - Look	0.393	0.532	0.514	0.898	0.928
MH/FH - Scheduled - Fix	0.226	0.324	0.347	0.641	0.625
MH/FH - Unscheduled Maintenance	0.503	0.614	0.712	1.159	1.377
MH/FH - Total	1.427	1.915	2.098	3.890	4.012
Unscheduled MTBM	4.8	3.9	3.4	2.3	1.9

Average Utilization	71.0	81.0	71.0	61.0	51.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	2.0	2.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 21B

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.993	0.991	0.991	0.991	0.979
Mission Reliability	0.970	0.964	0.967	0.966	0.918
Availability	0.931	0.910	0.916	0.892	0.899
Norm - Scheduled	0.039	0.049	0.042	0.054	0.046
Norm - Unscheduled	0.030	0.041	0.042	0.054	0.055
MH/FH - Flt-Readiness Insp	0.307	0.447	0.526	1.193	1.082
MH/FH - Scheduled - Look	0.365	0.531	0.514	0.898	0.928
MH/FH - Scheduled - Fix	0.225	0.323	0.346	0.641	0.624
MH/FH - Unscheduled Maintenance	0.503	0.613	0.712	1.158	1.377
MH/FH - Total	1.399	1.915	2.098	3.890	4.011
Unscheduled MTBM	4.7	3.8	3.3	2.3	1.8

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	1.0	1.0	1.0	1.0
(Per)	1.0	2.0	2.0	3.0	3.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 21C

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.993	0.991	0.991	0.991	0.979
Mission Reliability	0.970	0.964	0.967	0.966	0.918
Availability	0.949	0.931	0.934	0.919	0.922
Norm - Scheduled	0.021	0.028	0.025	0.027	0.024
Norm - Unscheduled	0.030	0.041	0.042	0.054	0.055
MH/FH - Flt-Readiness Insp	0.307	0.447	0.526	1.193	1.082
MH/FH - Scheduled - Look	0.446	0.551	0.532	0.898	0.928
MH/FH - Scheduled - Fix	0.225	0.323	0.346	0.641	0.624
MH/FH - Unscheduled Maintenance	0.503	0.613	0.712	1.158	1.377
MH/FH - Total	1.481	1.934	2.116	3.890	4.011
Unscheduled MTBM	4.7	3.8	3.3	2.3	1.8

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	2.0	2.0	3.0	3.0
(Per)	3.0	4.0	4.0	5.0	5.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 22A

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.977
Mission Reliability	0.965	0.958	0.961	0.961	0.908
Availability	0.952	0.936	0.940	0.920	0.923
Norm - Scheduled	0.017	0.019	0.017	0.020	0.018
Norm - Unscheduled	0.031	0.045	0.043	0.059	0.058
MH/FH - Flt-Readiness Insp	0.310	0.451	0.531	1.205	1.093
MH/FH - Scheduled - Look	0.284	0.372	0.357	0.636	0.695
MH/FH - Scheduled - Fix	0.194	0.257	0.311	0.538	0.549
MH/FH - Unscheduled Maintenance	0.539	0.687	0.754	1.279	1.467
MH/FH - Total	1.327	1.768	1.953	3.659	3.804
Unscheduled MTBM	4.4	3.5	3.2	2.1	1.7

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 22B

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.977
Mission Reliability	0.965	0.958	0.961	0.961	0.908
Availability	0.941	0.929	0.934	0.916	0.919
Norm - Scheduled	0.028	0.026	0.023	0.025	0.022
Norm - Unscheduled	0.031	0.045	0.043	0.059	0.058
MH/FH - Flt-Readiness Insp	0.310	0.451	0.531	1.205	1.093
MH/FH - Scheduled Look	0.248	0.372	0.357	0.636	0.695
MH/FH - Scheduled - Fix	0.194	0.257	0.311	0.538	0.549
MH/FH - Unscheduled Maintenance	0.539	0.687	0.754	1.279	1.467
MH/FH - Total	1.292	1.768	1.953	3.659	3.804
Unscheduled MTBM	4.4	3.5	3.2	2.1	1.7

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	3.0	3.0
(Per)	1.0	2.0	2.0	3.0	3.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 22C

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.977
Mission Reliability	0.965	0.958	0.961	0.961	0.908
Availability	0.955	0.939	0.942	0.923	0.926
Norm - Scheduled	0.014	0.016	0.015	0.018	0.016
Norm .. Unscheduled	0.031	0.045	0.043	0.059	0.058
MH/FH - Flt-Readiness Insp	0.310	0.451	0.531	1.205	1.093
MH/FH - Scheduled - Look	0.322	0.397	0.381	0.636	0.695
MH/FH - Scheduled - Fix	0.194	0.257	0.311	0.538	0.549
MH/FH - Unscheduled Maintenance	0.539	0.687	0.754	1.279	1.467
MH/FH - Total	1.366	1.793	1.977	3.659	3.804
Unscheduled MTBM	4.4	3.5	3.2	2.1	1.7

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	3.0	4.0	4.0	5.0	5.0
(Per)	3.0	4.0	4.0	5.0	5.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 22D	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.977
Mission Reliability	0.965	0.958	0.961	0.961	0.908
Availability	0.957	0.940	0.943	0.924	0.927
Norm - Scheduled	0.012	0.015	0.013	0.016	0.015
Norm - Unscheduled	0.031	0.045	0.043	0.059	0.058
MH/FH - Flt-Readiness Insp	0.310	0.451	0.531	1.205	1.093
MH/FH - Scheduled - Look	0.363	0.431	0.414	0.664	0.725
MH/FH - Scheduled - Fix	0.194	0.257	0.311	0.538	0.549
MH/FH - Unscheduled Maintenance	0.539	0.687	0.754	1.279	1.467
MH/FH - Total	1.407	1.828	2.010	3.687	3.834
Unscheduled MTBM	4.4	3.5	3.2	2.1	1.7

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	4.0	5.0	5.0	6.0	6.0
(Per)	4.0	5.0	5.0	6.0	6.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 23A

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.976
Mission Reliability	0.965	0.957	0.961	0.960	0.906
Availability	0.948	0.933	0.937	0.917	0.921
Norm - Scheduled	0.020	0.020	0.018	0.022	0.019
Norm - Unscheduled	0.032	0.047	0.045	0.061	0.060
MH/FH - Flt-Readiness Insp	0.310	0.452	0.532	1.205	1.094
MH/FH - Scheduled - Look	0.340	0.410	0.397	0.743	0.753
MH/FH - Scheduled - Fix	0.184	0.238	0.292	0.518	0.516
MH/FH - Unscheduled Maintenance	0.551	0.710	0.777	1.308	1.508
MH/FH - Total	1.385	1.811	1.998	3.774	3.871
Unscheduled MTBM	4.4	3.4	3.1	2.0	1.7

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 23B

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.976
Mission Reliability	0.965	0.957	0.961	0.960	0.906
Availability	0.936	0.926	0.931	0.912	0.917
Norm - Scheduled	0.032	0.028	0.024	0.027	0.023
Norm - Unscheduled	0.032	0.047	0.045	0.061	0.060
MH/FH - Flt-Readiness Insp	0.310	0.452	0.532	1.205	1.094
MH/FH - Scheduled - Look	0.298	0.410	0.397	0.743	0.753
MH/FH - Scheduled - Fix	0.184	0.238	0.292	0.518	0.516
MH/FH - Unscheduled Maintenance	0.551	0.710	0.777	1.308	1.508
MH/FH - Total	1.343	1.811	1.998	3.774	3.871
Unscheduled MTBM	4.4	3.4	3.1	2.0	1.7

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	1.0	2.0	2.0	3.0	3.0
(Per)	1.0	2.0	2.0	3.0	3.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 23C

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.992	0.989	0.990	0.990	0.976
Mission Reliability	0.965	0.957	0.961	0.960	0.906
Availability	0.952	0.936	0.940	0.920	0.924
Norm - Scheduled	0.016	0.017	0.015	0.019	0.016
Norm - Unscheduled	0.032	0.047	0.045	0.061	0.060
MH/FH - Flt-Readiness Insp	0.310	0.452	0.532	1.205	1.094
MH/FH - Scheduled - Look	0.386	0.438	0.424	0.743	0.753
MH/FH - Scheduled - Fix	0.184	0.238	0.292	0.518	0.516
MH/FH - Unscheduled Maintenance	0.551	0.710	0.777	1.308	1.508
MH/FH - Total	1.431	1.838	2.024	3.774	3.871
Unscheduled MTBM	4.4	3.4	3.1	2.0	1.7

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	3.0	4.0	4.0	5.0	5.0
(Per)	3.0	4.0	4.0	5.0	5.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 24

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.990	0.988	0.988	0.988	0.974
Mission Reliability	0.959	0.950	0.954	0.954	0.893
Availability	0.951	0.933	0.935	0.914	0.918
Norm - Scheduled	0.011	0.011	0.009	0.012	0.010
Norm - Unscheduled	0.038	0.056	0.055	0.074	0.072
MH/FH - Flt-Readiness Insp	0.314	0.457	0.537	1.215	1.104
MH/FH - Scheduled - Look	0.184	0.224	0.215	0.397	0.407
MH/FH - Scheduled - Fix	0.091	0.118	0.145	0.263	0.258
MH/FH - Unscheduled Maintenance	0.653	0.843	0.938	1.589	1.792
MH/FH - Total	1.242	1.642	1.835	3.464	3.561
Unscheduled MTBM	3.7	2.9	2.6	1.7	1.4

Average Utilization	70.0	80.0	70.0	60.0	50.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

INSPECTION SCHEME SUMMARY MATRIX

Insp Scheme - 25

	OH-58	UH-1	AH-1	CH-47	CH-54
Flight Reliability	0.995	0.993	0.994	0.994	0.984
Mission Reliability	0.977	0.973	0.976	0.975	0.938
Availability	0.932	0.920	0.929	0.907	0.914
Norm - Scheduled	0.049	0.054	0.046	0.058	0.050
Norm - Unscheduled	0.021	0.028	0.026	0.037	0.038
MH/FH - Flt-Readiness Insp	0.299	0.433	0.512	1.167	1.056
MH/FH - Scheduled - Look	0.877	1.172	1.102	2.115	2.168
MH/FH - Scheduled - Fix	0.362	0.494	0.587	0.997	1.018
MH/FH - Unscheduled Maintenance	0.356	0.428	0.457	0.783	0.961
MH/FH - Total	1.894	2.525	2.657	5.061	5.201
Unscheduled MTBM	6.6	5.4	5.1	3.2	2.6

Average Utilization	71.0	81.0	71.0	61.0	51.0
Average Flight Duration	3.0	2.9	2.4	1.4	2.6
Look Phase Sched Insp Crew (Int)	2.0	3.0	3.0	4.0	4.0
(Per)	2.0	3.0	3.0	4.0	4.0

APPENDIX IX
COMPONENT MIX FOR RECOMMENDED INSPECTION SCHEME

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
		100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
CODE	NOMENCLATURE																
110101	Frame/Stringer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110102	Skin	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110103	Windshield	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110104	Window	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110105	Escape Hatch	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110106	Hatch Jettison Mechanism																
110107	Cargo Ramp	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110108	Horizontal Stabilizer Section	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110109	Step/Handhold	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110110	Antenna/Support																
110201	Siding Cabin Door	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110202	Hinged Cabin Door	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110203	Door Strut Set																
110204	Door Latch Mechanism	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110205	Door Jettison Mechanism																
110301	Hinged Access Door/Cowling	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110302	Hinged Work Platform	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110303	Door/Cowl/Platform Latch Mechanism	X				X				X				X			
110304	Removable Fairing/Cowling	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110305	Removable Access Panel	X				X				X				X			
110401	Instrument Console				X								X				
110402	Equipment Rack				X								X				
110403	Floor Panel	X				X				X				X			
110404	Seat Track				X								X				
110501	Firewall	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110502	Scupper/Drain	X				X				X				X			
110503	Hanger Brg Support	X				X				X				X			
110601	Engine Fitting	X				X				X				X			
110602	Transmission/Gearbox Fitting	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
110603	Tail Boom Attach Fitting	X				X				X				X			
110604	Landing Gear Fitting	X				X				X				X			

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
		100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
CODE	NOMENCLATURE																
110605	Cargo Hook Fitting												X				
110606	Armament				X								X				
120101	Instrument Panel				X								X				
120102	Glare Shield		X		X		X		X		X		X		X		X
120103	Overhead Panel				X								X				
120104	Pilot/Copilot Seat/Cushion	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
120105	Seat Adjustment Mechanism				X								X				
120106	Inertia Reel				X								X				
120107	Shoulder Harness/Lap Belt				X								X				
120108	Armor Plate Set				X								X				
120109	Armor Plt Quick-Release Mechanism				X								X				
120110	Relief Tube				X								X				
120111	Map Case				X								X				
120112	Spare Lamp Storage Box				X								X				
120201	Passenger Seat				X								X				
120202	Lap Belt	X				X				X				X			
120203	Insulation Blanket Panel				X								X				
120204	Block & Tackle Assembly				X								X				
120301	Ramp Control Panel				X								X				
120302	Ramp Actuating Cylinder and Lock	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
120401	Hatch Door Actuating Cylinder	X				X				X				X			
120402	Hatch Door Latch	X				X				X				X			
130101	Skid Tube	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130102	Skid Tube Shoe	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130103	Cross Tube	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130104	Cross Tube Support	X				X				X				X			
130105	Strut Fairing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130201	Shock Strut	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130202	Drag Strut	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130203	Scissors Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130204	Shimmy Damper Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130205	Wheel Lock	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
		100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
130207	Wheel & Tire Assembly	X				X				X				X			
130301	Power Brake Master Cylinder	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X
130302	Brake Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130303	Parking Brake Control	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130304	Parking Brake Cable																
130305	Parking Brake Linkage/Spring				X								X				
130306	Parking Brake Valve				X								X				
130401	Rheostat				X								X				
130402	Electrical Harness	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130403	Power Steering Hyd Unit	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130501	Tail Skid Shock Strut	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130502	Tail Skid Tube	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
130503	Tail Skid Actuator	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140101	Collective Stick Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140102	Friction Brake	X				X				X				X			
140103	Torque Tube				X								X				
140104	Push-Pull Rod	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140105	Crank/Lever/Arm, etc.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140106	Magnetic Brake	X				X				X				X			
140107	Damper Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140108	Engine Droop Eliminator Unit				X								X				
140109	Boot/Seal	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140201	Cyclic Control Stick	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140202	Stick Trim Actuator	X				X				X				X			
140203	Longitudinal Stick Pos Indicator	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140204	Torque Tube	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140205	Push-Pull Rod	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140206	Crank/Lever/Arm, etc	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140207	Magnetic Brake	X				X				X				X			
140208	Force Gradient Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140209	Long Tdnl Cyclic Trim Spd Actr	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140210	Boot/Seal	X				X				X				X			

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
		100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
CODE	NOMENCLATURE																
140301	Controls Mixer Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140401	Swashplate Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140403	Scissor & Sleeve Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140404	Link/Rod/Lever, etc.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140405	Swashplate Boot/Seal																
140406	Swashplate Assy (Heavy Helo)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140501	Pedal Assembly				X								X				
140502	Pedal Adjustment Mech	X								X							
140503	Tail Rotor Trim Actuator				X								X				
140504	Push-Pull Rod	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140505	Crank/Lever/Arm, etc.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140506	Magnetic Brake	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140507	Force Gradient Assy	X				X				X				X			
140508	Pulley				X								X				
140509	Quadrant				X								X				
140510	Cable Assy/Turnbuckle	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140511	Fairlead	X				X				X							
140512	Chain Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140601	Cross Head/Star	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140602	Pitch Change Link	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140701	Push-Pull Rod	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140702	Crank/Lever/Arm, etc.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140703	Torque Tube	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
140801	SAS Gyro	X			X					X				X			
140802	SAS Transducer				X								X				
140803	SAS Control Actuator	X			X					X				X			
150101	M.R. Blade Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150102	Drag Brace	X								X							
150103	Damper Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150104	Damper Reservoir				X								X				
150105	Damper Hose				X								X				
150106	Pitch Varying Housing/Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150107	Tension-Torsion Strap Set				X								X				
150108	Hub Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150109	Hub Oil Reservoir	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150111	Centrifugal Droop Stop Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
		100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
150112	Anti-Flap Restraint																
150113	Pitch Horn	X			X									X			
150114	Pitch Link									X							
150115	K Bar	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150116	Control Tube/Rod	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150117	Stabilizer Bar Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150118	Stabilizer Damper	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150119	Rotary-Wing Head Fairing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150120	Sand Deflector	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150121	Boot/Cover	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150122	Pitch Vary Hsg/Assy (Qty Helo)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150123	Hub Assy (Heavy Helo)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150201	T.R. Blade Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150202	Sleeve & Spindle Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150203	Hub Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
150204	Oil Reservoir				X												
220101	Engine Assembly	X				X				X							
220201	Combustion Case Fuel Drain Valve		X		X		X		X		X		X		X		X
220202	Exhaust Ejector				X												
220203	Insulation Blanket				X												
220204	Fireshield	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
220301	Fuel Control Assembly	X				X				X							
220302	Fuel Control Strainer				X												
220303	Servo Filter				X												
220305	Overspeed Governor	X				X				X				X			
220306	Fuel Boost Pump				X												
220307	Fuel Filter				X												
220308	Fuel Heater	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
220309	Flow Divider Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
220310	Main & Starting Fuel Manifold				X												
220311	Line/Hose	X				X				X							
220401	Oil Tank	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
220402	Oil Strainer				X												
220403	Oil Filter	X				X				X							
220404	Liq-to-Liq Oil Cooler	X				X				X							
220405	Line/Hose				X												
220501	Test Switch				X												
220502	Electrical Harness Assy				X												
220503	Fire Detector Element	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
		100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
220601	NOMENCLATURE																
220602	Ignition Exciter				X								X				
220603	Ignition Harness				X								X				
220701	Igniter Plug				X								X				
220702	Anti-icing Probe				X								X				
220703	Airbleed Actuator/Strainer				X								X				
220704	Air Valve Assembly				X								X				
240101	Line/Hose	X				X				X				X			
240201	App Engine Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240202	Air Inlet Screen	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240203	Air Inlet Duct	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240204	Insulation Blanket				X								X				
240301	Fuel Control Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240302	Acceleration Control Assembly				X								X				
240303	Rated Speed Control Assy	X				X				X				X			
240304	Fuel Boost Pump	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240305	Fuel Filter				X								X				
240306	Pressure Switch	X				X				X				X			
240307	Fuel Shutoff Valve	X				X				X				X			
240308	Line/Hose				X					X				X			
240401	Oil Reservoir				X								X				
240402	Oil Filter				X								X				
240403	Oil Relief Valve				X								X				
240404	Line/Hose				X								X				
240501	Start Switch	X				X				X				X			
240502	Relay				X									X			
240503	Speed Control Switch				X								X				
240601	Ignition Unit	X				X				X				X			
240602	Exciter	X				X				X				X			
240603	Ignition Harness				X								X				
240604	Igniter Plug				X								X				
240701	Hydraulic Pump Motor	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240702	Hand Pump				X								X				
240703	Accumulator	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240704	Solenoid Valve	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240705	Line/Hose	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
240801	Thermocouple				X								X				

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
		100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
240802	Hour Meter		X				X					X			X		
240901	Tubular Mount		X				X				X				X		
240902	Rubber Shock Mount				X								X				
260101	Engine Drive Shaft	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260102	Shaft Coupling - Thomas Type	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260103	Shaft Coupling - Zurn Type	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260104	Shaft to Coupling Clamp		X				X			X					X		
260105	Hanger Bearing	X				X				X				X			
260106	Bearing Shock Mount		X				X				X				X		
260107	Eng/Sync Drive Shift (Heavy Helo)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260201	T.R./Aux Pwr Plant Shift	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260202	Shift Coupling - Thomas Type		X				X				X				X		
260203	Shift Coupling - Zurn Type	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260204	Shift to Coupling Clamp		X				X				X				X		
260205	Hanger Bearing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260206	Viscous Damper				X								X				
260301	Rotor Dr Shift & Hsg Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260302	Rds Mag Chip Detector	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260401	Fan Drive Shift Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260402	Drive Belt	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260403	Drive Belt Pulley				X								X				
260501	Freewheeling Assembly		X				X				X				X		
260502	Mag Chip Detector				X								X				
260503	Aux Pwr Plant Shift Clutch	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260601	Engine Transmission Assy				X								X				
260602	Combining Transmission Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260603	Main Rotor Transmission Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260604	Intermediate Gearbox Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260605	Tail Rotor Gearbox Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

COMPONENT		INSPECTION POINTS																			
		FIRST CYCLE										SECOND CYCLE									
		100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800	100	200	300	400
260606	M.R. Transmission (Hvy Helo)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260607	Int Gearbox Assy (Heavy Helo)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260608	T.R. Gearbox Assy (Heavy Helo)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260701	Oil Tank		X				X				X				X						
260702	Oil Pump		X				X				X				X						
260703	Pressure Relief Valve				X								X								
260704	Oil Filter				X								X								
260705	Oil Cooler				X								X								
260706	Thermostatic Valve				X								X								
260707	Line/Hose		X				X				X										
260801	Pylon Mount Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260802	Damper	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260803	Lift Link	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260804	Tubular Mount Assy	X	X				X				X										
260901	Brake Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260902	Disc				X																
260903	Line/Hose	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
260904	Switch				X																
260905	Throttle Interlock				X																
260906	Solenoid		X				X				X										
260907	Wiring	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290101	Engine Mount	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290102	Engine Mount Bearing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290103	Torque Sensor	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290201	Particle Separator Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290202	Door Actuator	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290203	Cable Assembly	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290204	Pulley				X																
290205	Control Level	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290206	Pressure Switch		X				X				X				X						
290207	Wiring Harness				X																
290208	Particle Sep Assy (Hvy Helo)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290301	Inlet Screen	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290302	Inlet Duct/Plenum Chamber	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

COMPONENT NOMENCLATURE		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
		100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
290303	Alternate Air Bypass Door				X								X				
290401	Tailpipe		X		X		X		X		X		X		X		X
290402	Tailpipe Adapter/Ext		X				X				X				X		
290403	Tailpipe Clamp/Coupling				X								X				
290501	Bleed Air Valve		X				X				X				X		
290601	Temperature Sensor				X								X				
290602	Engine Anti-Ice Switch		X				X				X				X		
290603	Solenoid Valve				X								X				
290604	Wiring Harness				X								X				
290701	Starter Switch	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290702	Starter Relay				X								X				
290703	Starter Solenoid				X								X				
290704	Starter Generator		X				X				X				X		
290705	Hydraulic Starter	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290706	Starter Pressure Switch	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290707	Eng Start Hyd Manifold Valve	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290801	Control Quadrant Assy	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290802	Eng Cond Control Box	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290803	Throttle Twist Grip Mech				X								X				
290804	Engine Control Linkage	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290805	Cable/Pulley	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290806	Control Cable Tensioner				X								X				
290807	Flex Cable	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290808	Boot/Seal		X				X				X				X		
290809	Drop Compensator Cam Box		X				X				X				X		
290810	Trim Switch				X								X				
290811	RPM Control Actuator	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
290812	Elec Harness Assy				X								X				
290901	Eng Speed Sensitive Sw		X				X				X				X		
290902	RPM Warning Limit Det/Box		X				X				X				X		
290903	Audio Warning Unit		X				X				X				X		
291001	Oil Tank																
291002	Oil Cooler Blower	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
291003	Blower Duct		X		X		X		X		X		X		X		X
291004	Oil Cooler	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
291005	Thermostatic Bypass Vlv								X								X
291006	Solenoid Shut-off Valve								X								X
291007	Line/Hose		X				X				X				X		

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
		100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
410101	Thermostat						X		X								X
410102	Anti-Ice Switch		X												X		
410103	Heat Relay								X								X
410104	Heater Element								X								X
420101	Generator								X								X
420102	Voltage Regulator								X								X
420103	Relay								X								X
420104	Current Limiter								X								X
420105	Receptacle	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
420106	Transformer								X								X
420107	Transformer Rectifier								X								X
420108	Inverter	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
420109	Control Switch	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
420201	Generator	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
420202	Voltage Regulator								X								X
420203	Relay		X		X		X		X		X		X		X		X
420204	Current Limiter								X								X
420205	Receptacle	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
420206	Battery	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
420301	Master Sw Control Panel	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
420302	Aircraft Wiring		X				X		X		X				X		
440101	Cockpit/Cabin Light								X						X		
440102	Instrument Light								X								X
440103	Control Panel	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
440201	Landing Light	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
440202	Search Light	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
440203	Position/Formation Light	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
440204	Anticollision Light		X				X				X				X		
440205	Flasher Unit	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
440206	Control Panel								X								X
450101	Reservoir	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
450102	Hydraulic Pump	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
450103	Hydraulic Hand Pump	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
450104	Hydraulic Filter	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
450105	Accumulator	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
450106	Solenoid								X								X
450107	Relief Valve		X				X				X				X		

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
		100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
CODE	NOMENCLATURE																
450108	Check Valve		X				X				X				X		
450109	Drain Valve		X				X				X				X		
450110	Hydraulic Motor								X								X
450111	Switch																
450112	Hose/Line	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
450201	Accumulator								X								
450202	Flight Boost Manifold		X				X				X				X		
450203	Control/Pilot Valve								X								X
450204	Cylinder	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
450206	Irreversible Valve		X				X				X				X		
450207	Lockout Valve	X	X			X	X	X	X	X	X	X	X	X	X	X	X
450208	Pressure Reducer Valve		X				X				X				X		
450301	Pressure Switch		X				X				X						X
450401	Cooler Blower	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
450403	Blower Duct								X								X
450403	Electro-Hydraulic Motor								X								X
450404	Hyd Fluid Cooler	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
450405	Thermostat	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
460101	Fuel Cell								X								
460102	Sump Pump	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
460103	Fuel Filter			X				X				X					
460104	Engine Fuel Purifier								X								X
460105	Fuel Selector Valve								X								X
460106	Line/Hose			X				X				X				X	
460108	Pressure Fueling Adapter								X								X
460109	Defueling Valve								X								X
460110	Sump Drain								X								X
460201	Fuel Pump			X				X				X				X	
460202	Solenoid Valve								X								X
460203	Fuel Shutoff Valve								X								X
460204	Line/Hose			X				X				X				X	
490101	Fire Detector Element			X				X				X				X	
490102	Amplifier								X								X
490103	Fire Detection Control			X				X				X				X	
490104	Fire Detection Test Sw			X				X				X				X	
490201	Control Switch			X				X				X				X	
490202	Wiring Harness			X				X				X				X	
490203	Nitrogen Fire Bottle			X				X				X				X	

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
		100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
490204	Line/Hose								X								X
490301	Wiper Control Panel								X								X
490302	Wiper Motor			X				X				X				X	
490303	Relay								X								X
490304	Wiring Harness								X								X
490305	Mechanical Linkage								X								X
490306	Blade Arm								X								X
490307	Blade			X				X				X				X	
490401	Heat/Rain Removal Valve								X								X
490402	Line/Hose			X				X				X				X	
490501	Washer Switch			X				X				X				X	
490502	Electric Pump								X								X
490503	Reservoir								X								X
490504	Washer Nozzles	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
490601	Cargo Suspension Assy			X				X				X				X	
490602	Cargo Hook Assembly								X								X
490603	Cargo Release Pedal/Cable			X				X				X				X	
490604	Release Solenoid	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
490605	Release Relay								X								X
490606	Winch Control Panel								X								X
490607	Hyd Winch Assembly			X				X				X				X	
490608	Load Leveler Cylinder	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
490609	Winch Pump	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
490610	Relief/Shutoff Valve	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
490611	Line/Hose	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
490612	Hoist Cable								X								X
490613	Limit Switch			X				X				X				X	
490614	Control Panel								X								X
490615	Guillotine								X								X
490701	Combustion Heater Assy			X				X				X				X	
490702	Air Blower	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
490703	Ventilation/Heater Duct								X								X
490704	Air Pressure Switch	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
490705	Cabin Heat Control Panel								X								X
490706	Heater Fuel Line			X				X				X				X	
490801	Control Panel								X								X
490802	Solenoid Valve								X								X

COMPONENT		INSPECTION POINTS															
		FIRST CYCLE								SECOND CYCLE							
		100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
CODE	NOMENCLATURE																
490803	Heater Duct								X								X
490901	Chip Det Relay Panel	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
490902	Chip Detector								X								X
491001	Control Panel								X								X
491002	Warning Horn			X				X								X	
491003	Flasher Unit								X								X
510101	Airspeed	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510102	Vertical Climb								X								X
510103	Barometric Altimeter			X				X									X
510104	Rate of Climb								X								X
510105	Directional Gyro								X								X
510106	Turn/Slip								X								X
510107	Attitude Indicator			X				X				X				X	
510108	Flt Dir Hover Ind								X								X
510109	Cruise Guide Ind								X								X
510201	AC Voltmeter								X								X
510202	DC Voltmeter								X								X
510203	DC Loadmeter								X								X
510204	Clock			X				X				X				X	
510205	Outside Air Temp								X								X
510206	Master Caution Light	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510207	Master Fire Warning Lgt								X								X
510208	Caution Light								X								X
510301	Pitot Head			X				X				X				X	
510302	Static Head								X								X
510303	Pitot Heat Switch			X				X				X				X	
510304	Line/Hose								X								X
510305	Drain Valve								X								X
510401	Magnetic Compass	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510501	Radio Magnetic Ind								X								X
510502	Compass Transmitter								X								X
510503	Amplifier	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510504	Directional Gyro			X				X				X				X	
510505	Controller			X				X				X				X	
510601	Dual Tach Indicator	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510602	Tach Generator			X				X				X				X	
510603	Oil Temperature Ind	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510604	Oil Temperature Bulb								X								X

COMPONENT		INSPECTION POINTS																							
		FIRST CYCLE												SECOND CYCLE											
		100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800	100	200	300	400	500	600	700	800
CODE	NOMENCLATURE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510605	Oil Pressure Switch																								
510606	Oil Pressure Transmitter																								
510607	Fuel Pressure Indicator	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510608	Fuel Pressure Transmitter																								
510609	Torque Indicator																								
510610	Torque Sensor Transmitter																								
510611	Exhaust Gas Temp Ind		X		X		X		X		X		X		X		X		X		X		X		X
510612	Exhaust Thermocouple Assy																								
510701	Oil Pressure Indicator																								
510702	Oil Pressure Transmitter	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510703	Oil Pressure Transducer																								
510704	Tach Indicator																								
510705	Tach Generator																								
510706	Oil Temperature Ind																								
510707	Temp Indicator Select Sw																								
510708	Oil Temperature Bulb																								
510709	Thermoswitch																								
510801	Fuel Quantity Indicator	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510802	Selector Switch																								
510803	Fuel Quantity Transmitter																								
510804	Low Level Switch			X				X																	
510901	Boost Pressure Ind																								
510902	Utility Pressure Ind	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
510903	Pressure Transmitter			X																					
511101	EGT Indicator																								
511102	Tachometer																								
511103	Oil Pressure Ind	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
910101	Portable Fire Bottle			X				X																	
910102	Fire/Crash Axe/Knife																								
910201	First Aid Kit																								
910301	Survival Kit			X				X																	

INSP SCHEME - 22
HEL0 MODEL - UH-1

INSPECTION SCHEME COMPONENT SUMMARY

PAGE 1

APPENDIX X
MODEL OPTION A AND B OUTPUTS FOR
RECOMMENDED INSPECTION SCHEME (UH-1)

WUC		NOMENCLATURE	QPA	RATES PER 10,000 FLIGHT-HOURS										PREV RE-PAIR	UNSCH RE-PAIR	F-R-INSPI N/H	SCHO INSP N/H	PREV REPR N/H	UNSCH REPR N/H	TOTAL N/H	PREV REPR ENT	UNSCH REPR ENT	MIS-SION ABORT	IN-FLT ABORT	INTVL BETN INSP
1100000		AIRFRAME SYSTEM																							
1101000		FUSELAGE SUBSYSTEM																							
1101010		FRAME/STRINGER	3	10	9	0	50	68	76	194	29	33	1	0	100.0										
1101020		SKIN	2	33	84	227	75	116	352	770	73	221	5	1	100.0										
1101030		WINDSHIELD	2	5	13	15	2	30	89	137	18	52	0	0	100.0										
1101040		WINDOW	10	1	13	77	3	1	34	116	1	23	0	0	400.0										
1101080		HORIZONTAL STABILIZER SECTION	2	15	10	30	20	40	31	121	28	21	0	0	100.0										
1101090		STEP/HAND HOLD	12	8	4	0	9	5	4	14	3	0	0	0	100.0										
1101100		ANTENNA/SUPPORT	13	0	58	51	2	0	126	179	0	63	0	0	800.0										
		SUBSYSTEM TOTAL		73	188	400	162	260	709	1531	151	414	6	2											
1102000		COCKPIT/CABIN DOOR SUBSYSTEM																							
1102010		SLIDING CABIN DOOR	2	20	65	30	15	34	133	213	24	94	0	0	100.0										
1102020		HINGED CABIN DOOR	2	18	32	30	10	26	54	120	22	47	0	0	100.0										
1102040		DOOR LATCH MECHANISM	4	4	15	30	5	7	31	73	5	23	0	0	100.0										
1102050		DOOR JETTISON MECHANISM	4	0	1	0	5	0	1	6	0	1	0	0	800.0										
		SUBSYSTEM TOTAL		43	113	91	35	67	219	412	52	165	1	0											
1103000		ACCESS DOOR/COWL SUBSYSTEM																							
1103010		HINGED ACCESS DOOR/COWLING	8	29	26	60	30	40	43	174	34	37	0	0	100.0										
1103030		DOOR/COWL/PLTFR LATCH MECHSM	16	1	9	62	5	1	12	80	1	11	0	0	400.0										
1103040		REMOVABLE FAIRING/COWLING	4	118	50	60	10	247	146	463	188	111	2	0	100.0										
1103050		REMOVABLE ACCESS PANEL	14	1	5	54	4	1	10	69	1	7	0	0	400.0										
		SUBSYSTEM TOTAL		147	92	237	49	289	211	786	224	166	2	0											

INSPECTION SCHEME COMPONENT SUMMARY

RATES PER 10,000 FLIGHT-HOURS																	
WUC	NOMENCLATURE	QPA	PREV RE- PAIR	UNSCH RE- PAIR	F-R- INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR ENT	UNSCH REPR ENT	MIS- SION ABORT	IN- FLT ABORT	INTVL BETW INSP			
1104000 COCKPIT/CABIN INTERIOR SUBSYS																	
1104010	INSTRUMENT CONSOLE	1	0	6	0	1	0	6	7	0	5	0	0	800.0			
1104030	FLOOR PANEL	7	1	6	54	7	7	40	109	3	18	0	0	400.0			
1104040	SEAT TRACK	2	0	1	0	1	0	2	2	0	1	0	0	800.0			
SUBSYSTEM TOTAL																	
			1	13	54	8	8	48	117	3	25	0	0				
1105000 ENG COMPARTMENT/TUNNEL SUBSYS																	
1105010	FIREWALL	2	4	6	0	10	11	23	44	7	15	0	0	100.0			
1105020	SCUPPER/DRAIN	2	0	0	0	0	0	0	0	0	0	0	0	400.0			
1105030	HANGER BRG SUPPT STRUCTURE	4	1	3	0	2	1	5	8	1	5	0	0	400.0			
SUBSYSTEM TOTAL																	
			4	9	0	13	12	28	53	8	20	0	0				
1106000 FITTING/HARDPOINT SUBSYSTEM																	
1106010	ENGINE FITTING	6	0	2	46	2	1	14	63	0	7	0	0	400.0			
1106020	TRANSMISSION/GEARBOX FITTING	1	3	0	0	2	6	0	9	4	0	0	0	100.0			
1106030	TAIL BOOM ATTACH FITTING	4	0	6	0	7	0	15	22	0	9	0	0	400.0			
1106040	LANDING GEAR FITTING	4	0	1	0	1	0	2	3	0	2	0	0	400.0			
1106050	CARGO HOOK FITTING	1	0	0	0	0	0	0	1	0	0	0	0	800.0			
SUBSYSTEM TOTAL																	
			3	9	46	13	7	31	98	5	18	0	0				
SYSTEM TOTAL																	
			272	431	829	280	642	1246	2907	444	809	10	2				
1200000 FUSELAGE COMPARTMENT SYSTEM																	
1201000 COCKPIT SUBSYSTEM																	
1201010	INSTRUMENT PANEL	1	0	6	0	1	0	6	7	0	5	0	0	800.0			
1201030	OVERHEAD PANEL	1	0	1	0	1	0	1	1	0	1	0	0	800.0			

INSP SCHEME - 22
HELLO MODEL - UM-1

PAGE 3

INSPECTION SCHEME COMPONENT SUMMARY

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE- PAIR	UNSCM RE- PAIR	F-R- INSP N/H	SCHD INSP N/H	PREV REPR N/H	UNSCM REPR N/H	TOTAL N/H	PREV REPR ENT	UNSCM REPR ENT	MIS- SION ABORT	IN- FLT ABORT	INTVL BETW INSP
1201040	PILOT/COPILOT SEAT/CUSHION	2	3	23	0	10	3	30	44	3	24	1	0	100.0
1201050	SEAT ADJUSTMENT MECHANISM	2	0	1	0	2	0	1	3	0	1	0	0	800.0
1201060	INERTIA REEL	2	0	3	31	2	0	2	35	0	2	0	0	800.0
1201070	SHOULDER HARNESS/LAP BELT	4	0	7	42	1	0	5	68	0	4	0	0	800.0
1201080	ARMOR PLATE SET	2	0	4	0	0	0	4	1	0	1	0	0	800.0
1201090	ARMOR PLT QUICK RELEASE MECHANISM	2	0	1	0	2	0	1	3	0	1	0	0	800.0
1201110	MAP CASE	1	0	6	0	0	0	3	5	0	5	0	0	800.0
1201120	SPARE LAMP STORAGE BOX	1	0	6	0	0	0	5	6	0	5	0	0	800.0
	SUBSYSTEM TOTAL		4	55	93	20	4	56	173	3	49	2	0	
1202000	CABIN SUBSYSTEM													
1202010	PASSENGER SEAT	11	0	6	0	5	1	15	21	0	10	0	0	800.0
1202020	LAP BELT	11	2	3	85	3	1	2	92	1	2	0	0	400.0
1202030	INSULATION BLANKET PANEL	5	0	4	0	3	0	4	4	0	1	0	0	800.0
	SUBSYSTEM TOTAL		3	10	85	12	2	18	117	2	12	0	0	
	SYSTEM TOTAL		6	65	179	32	6	74	290	5	61	2	0	
1300000	LANDING GEAR SYSTEM													
1301000	MLG SKID TYPE SUBSYSTEM													
1301010	SKID TUBE	2	14	26	15	10	84	190	298	37	84	1	1	100.0
1301020	SKID TUBE SHOE	2	3	5	15	5	11	21	52	5	10	0	0	100.0
1301030	CROSS TUBE	2	1	13	15	15	10	111	152	5	50	0	0	100.0
1301040	CROSS TUBE SUPPORT	4	1	7	31	4	1	7	43	1	7	0	0	400.0
	SUBSYSTEM TOTAL		20	50	76	34	106	328	544	48	150	2	1	

INSI' SCHEME - 22
HELO MODEL - UH-1

INSPECTION SCHEME COMPONENT SUMMARY

PAGE 4

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE- PAIR	UNSCH RE- PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCH REPR EMT	MIS- SION ABORT	IN- FLT ABORT	INTVL BETW INSP
1305000	TAIL SKID SUBSYSTEM													
1305020	TAIL SKID TUBE	1	2	6	8	5	4	12	28	3	9	1	0	100.0
	SUBSYSTEM TOTAL		2	6	8	5	4	12	28	3	9	1	0	
	SYSTEM TOTAL		22	56	84	39	110	340	573	51	153	2	1	
1400000	FLIGHT CONTROLS SYSTEM													
1401000	COLLECTIVE PITCH CNTLS SUBSYS													
1401010	COLLECTIVE STICK ASSEMBLY	2	35	25	30	25	71	59	185	53	44	1	0	100.0
1401020	FRICTION BRAKE	2	0	42	0	2	1	157	161	1	81	1	0	400.0
1401030	TORQUE TUBE	1	0	0	0	2	0	0	6	0	1	0	0	800.0
1401040	PUSH-PULL ROD	3	6	2	23	11	10	4	48	7	3	0	0	100.0
1401050	CRANK/LEVER/ARM, ETC	3	2	8	23	15	5	22	65	4	18	1	0	100.0
1401090	BOOT/SEAL	3	3	5	0	4	5	9	17	4	7	0	0	100.0
	SUBSYSTEM TOTAL		47	83	76	59	91	255	481	68	154	3	1	
1402000	CYCLIC CONTROLS SUBSYSTEM													
1402010	CYCLIC CONTROL STICK	2	2	23	30	25	3	46	104	2	35	1	0	100.0
1402040	TORQUE TUBE	1	4	4	0	13	8	11	31	6	9	0	0	100.0
1402050	PUSH-PULL ROD	9	3	4	68	34	4	7	113	3	5	0	0	100.0
1402060	CRANK/LEVER/ARM, ETC	3	12	16	23	15	28	43	108	22	34	1	0	100.0
1402070	MAGNETIC BRAKE	2	0	22	0	1	1	99	101	0	52	0	0	400.0
1402080	FORCE GRADIENT ASSEMBLY	2	1	7	0	7	3	22	33	2	17	0	0	100.0
1402100	BOOT/SEAL	4	0	0	0	1	0	0	1	0	0	0	0	400.0
	SUBSYSTEM TOTAL		22	76	121	96	47	229	493	36	152	3	1	

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE- PAIR	UNSC RE- PAIR	F.A. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSC REPR M/H	TOTAL M/H	PREV REPR ENT	UNSC REPR ENT	MIS- SION ABORT	IN- FLT ABORT	INTVL BETW INSP
1403000	CONTROLS MIXER SUBSYSTEM													
1403010	CONTROLS MIXER ASSEMBLY	1	4	4	45	50	10	4	105	8	0	0	0	100.0
	SUBSYSTEM TOTAL		4	0	45	50	10	0	105	8	0	0	0	
1404000	MAST CONTROLS SUBSYSTEM													
1404010	SWASHPLATE ASSEMBLY	1	8	31	45	100	41	185	371	23	104	4	1	100.0
1404030	SCISSOR & SLEEVE ASSEMBLY	1	32	25	30	38	83	80	230	58	55	1	0	100.0
1404040	LINK/ROD/LEVER, ETC	3	27	34	23	11	89	135	258	57	86	0	0	100.0
1404050	SWASHPLATE BOOT/SEAL	2	0	1	0	0	0	2	2	0	2	0	0	800.0
	SUBSYSTEM TOTAL		67	91	98	149	212	401	861	137	246	5	2	
1405000	TAIL ROTOR CONTROLS SUBSYSTEM													
1405010	PEDAL ASSEMBLY	4	0	10	0	1	0	15	16	0	13	1	0	800.0
1405020	PEDAL ADJUSTMENT MECHANISM	2	0	4	0	2	0	10	12	0	9	0	0	400.0
1405040	PUSH-PULL ROD	8	0	1	60	30	1	4	95	1	2	0	0	100.0
1405050	CRANK/LEVER/ARM, ETC	10	12	9	70	50	22	20	169	17	15	0	0	100.0
1405060	MAGNETIC BRAKE	1	0	4	0	2	1	13	16	1	8	0	0	100.0
1405070	FORCE GRADIENT ASSEMBLY	1	0	1	0	1	1	5	7	1	4	0	0	400.0
1405080	PULLEY	6	1	4	0	2	1	6	8	1	5	0	0	800.0
1405090	QUADRANT	1	0	1	0	1	0	1	2	0	1	0	0	800.0
1405100	CABLE ASSEMBLY/TURNBUCKLE	4	8	11	45	70	13	21	149	9	15	1	0	100.0
1405110	FAIRLEAD	10	2	6	0	3	2	8	13	2	7	0	0	400.0
1405120	CHAIN ASSEMBLY	1	7	2	4	13	11	5	36	9	4	0	0	100.0
	SUBSYSTEM TOTAL		30	54	189	174	53	107	524	39	81	3	0	

INSPECTION SCHEME COMPONENT SUMMARY

PAGE 6

RATES PER 10,000 FLIGHT-HOURS

MUC	NOMENCLATURE	QPA	PREV RE- PAIR	UNSC RE- PAIR	F.A. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSC REPR M/H	TOTAL M/H	PREV REPR ENT	UNSC REPR ENT	MIS- SION ABORT	IN- FLT ABORT	INTVL BETW INSP
1406000	TAIL ROTOR PITCH CNTRL SUBSYS													
1406010	CROSS HEAD/STAR	1	16	10	38	10	24	18	90	23	17	1	0	100.0
1406020	PITCH CHANGE LINK	2	10	23	15	7	12	33	68	11	31	1	0	100.0
	SUBSYSTEM TOTAL		26	33	53	17	36	52	158	33	48	2	0	
1407000	ELEVATOR CONTROLS SUBSYSTEM													
1407010	PUSH-PULL ROD	6	1	1	45	22	1	4	73	1	3	0	0	100.0
1407020	CRANK/LEVER/ARM, ETC	5	0	*	38	19	1	*	58	1	0	0	0	100.0
1407030	TORQUE TUBE	1	1	1	0	13	6	7	26	4	5	1	0	100.0
	SUBSYSTEM TOTAL		2	3	83	54	9	12	158	6	8	1	0	
	SYSTEM TOTAL		198	339	665	600	458	1056	2780	327	689	16	4	
1500000	ROTOR SYSTEM													
1501000	MAIN ROTOR SUBSYSTEM													
1501010	M.R. BLADE ASSEMBLY	2	5	32	302	40	24	197	564	11	85	4	3	100.0
1501020	DRAG BRACE	2	0	3	15	1	1	5	22	0	3	1	0	400.0
1501040	PITCH VARYING HOUSING/ASSY	2	3	4	30	20	8	12	70	5	8	0	0	100.0
1501070	TENSION-TORSION STRAP SET	2	0	*	0	0	0	*	1	0	1	0	0	800.0
1501080	HUB ASSEMBLY	1	2	46	15	10	15	350	390	7	159	2	1	100.0
1501090	HUB OIL RESERVOIR	4	1	2	30	5	2	5	42	1	3	0	0	100.0
1501130	PITCH HORN	2	0	1	15	1	0	1	18	0	1	0	0	400.0
1501140	PITCH LINK	2	28	59	15	7	39	99	161	31	78	2	0	100.0
1501160	CONTROL TUBE/ROD	4	7	6	30	15	9	10	64	7	7	0	0	100.0
1501170	STABILIZER BAR ASSEMBLY	1	22	38	15	15	38	77	145	29	59	2	1	100.0

INSPECTION SCHEME - 22
HELICOPTER MODEL - UH-1

INSPECTION SCHEME COMPONENT SUMMARY

PAGE 7

HUC	NOMENCLATURE	QPA	PREV RE- PAIR	UNSC RE- PAIR	F.A. INSP N/M	SCHD INSP N/M	RATES PER 10,000 FLIGHT-HOURS				TOTAL M/H	PREV REPR ENT	UNSC REPR ENT	MIS- SION ABORT	IN- FLY ABORT	INTVL BETW INSP
							PREV REPR N/M	UNSC REPR N/M	TOTAL M/H	PREV REPR ENT						
1501180	STABILIZER DAMPER	2	62	9	0	30	92	17	139	74	14	0	0	0	100.0	
	SUBSYSTEM TOTAL		131	199	470	145	229	772	1616	165	416	11	4			
1502000	TAIL ROTOR SUBSYSTEM															
1502010	T.R. BLADE ASSEMBLY	2	8	44	76	20	10	63	169	9	58	5	1	1	100.0	
1502030	HUB ASSEMBLY	1	21	42	8	7	33	81	129	29	71	2	1	1	100.0	
	SUBSYSTEM TOTAL		29	86	83	27	43	144	298	38	129	8	1			
	SYSTEM TOTAL		159	285	553	172	272	916	1913	203	545	19	5			
2200000	TURBO-SHAFT ENGINE SYSTEM															
2201000	ENGINE ASSEMBLY SUBSYSTEM															
2201010	ENGINE ASSEMBLY	1	1	33	155	132	4	209	500	2	91	4	1	1	400.0	
	SUBSYSTEM TOTAL		1	33	155	132	4	209	500	2	91	4	1			
2202000	ENG REPLACABLE COMPONENTS SUBSYS															
2202030	INSULATION BLANKET	1	0	8	0	0	0	8	1	0	0	0	0	0	800.0	
2202040	FIRESHIELD	1	3	1	0	2	9	7	15	6	3	0	0	0	100.0	
	SUBSYSTEM TOTAL		3	1	0	3	9	5	16	6	3	0	0			
2203000	ENGINE FUEL SUBSYSTEM															
2203010	FUEL CONTROL ASSEMBLY	1	0	18	0	6	0	44	51	0	36	1	0	0	400.0	
2203020	FUEL CONTROL STRAINER	1	0	1	0	3	0	1	4	0	1	0	0	0	800.0	
2203030	SERV FILTER	1	0	1	0	3	0	1	4	0	1	0	0	0	800.0	
2203050	OVERSPEED GOVERNOR	1	0	15	0	1	0	23	25	0	20	2	1	1	400.0	
2203060	FUEL BOOST PUMP	1	0	1	0	0	0	1	1	0	1	0	0	0	800.0	
2203070	FUEL FILTER	1	0	1	8	3	0	1	12	0	1	0	0	0	800.0	

INSP SCHEME - 22
HELLO MODEL - UM-1

INSPECTION SCHEME COMPONENT SUMMARY

PAGE 8

WUC	NOMENCLATURE	QPA	PREV RE- PAIR	UNSC RE- PAIR	RATES PER 10,000 FLIGHT-HOURS				TOTAL M/H	PREV REPR M/H	UNSC REPR M/H	MIS- SION ABORT	IN- FLY ABORT	INTVL BETW INSP
					F.M. INSP M/H	SCHO INSP M/H	PREV REPR M/H	UNSC REPR M/H						
2203100	MAIN & STARTING FUEL MANIFOLD	1	0	5	8	1	0	39	48	0	20	1	1	800.0
2203110	LINE/HOSE	3	0	5	12	1	1	8	20	1	9	1	0	400.0
	SUBSYSTEM TOTAL		1	47	27	18	1	118	165	1	87	5	2	
2204000	ENGINE LUBRICATION SUBSYSTEM													
2204010	OIL TANK	1	2	5	15	7	3	8	34	3	7	0	0	100.0
2204020	OIL STRAINER	2	0	2	0	6	0	2	9	0	2	0	0	800.0
2204030	OIL FILTER	1	0	1	8	6	0	1	15	0	1	0	0	400.0
2204040	LIQ-TO-LIQ OIL COOLER	1	0	1	4	1	0	2	11	0	1	0	0	400.0
2204050	LINE/HOSE	5	0	3	19	0	0	4	24	0	3	0	0	800.0
	SUBSYSTEM TOTAL		3	12	50	21	4	17	92	3	14	1	0	
2205000	ENGINE ELECTRICAL SUBSYSTEM													
2205010	TEST SWITCH	1	0	5	0	0	0	7	8	0	7	0	0	800.0
2205020	ELECTRICAL HARNESS ASSEMBLY	1	0	2	0	0	0	3	4	0	3	0	0	800.0
2205030	FIRE DETECTOR ELEMENT	2	3	20	0	25	6	50	81	4	31	2	0	100.0
	SUBSYSTEM TOTAL		3	26	0	26	5	61	92	4	41	2	0	
2206000	ENGINE IGNITION SUBSYSTEM													
2206010	IGNITION EXCITER	1	0	5	0	0	0	19	19	0	11	2	0	800.0
2206020	IGNITION HARNESS	1	0	1	0	1	0	1	2	0	1	0	0	800.0
2206030	IGNITER PLUG	4	0	6	0	5	1	20	25	0	12	1	0	800.0
	SUBSYSTEM TOTAL		0	11	0	6	1	40	47	0	23	4	0	
2207000	BLEED AIR SUBSYSTEM													
2207010	ANTI-ICING PROBE	1	0	1	0	1	0	2	2	0	1	0	0	800.0

INSP SCHEME - 22
MELO MODEL - UN-1

INSPECTION SCHEME COMPONENT SUMMARY

PAGE 9

RATES PER 10,000 FLIGHT-HOURS																
WUC	NOMENCLATURE	QPA	PREV RE- PAIR	UNSC RE- PAIR	F.R. INSP N/H	SCHD INSP N/H	PREV REPR N/H	UNSC REPR N/H	TOTAL N/H	PREV REPR ENT	UNSC REPR ENT	MIS- SION ABORT	IN- FLT ABORT	INTVL BETW INSP		
2207020	AIRBLEED ACTUATOR/TRAINER	1	0	1	0	3	0	2	5	0	1	0	0	800.0		
2207030	AIR VALVE ASSEMBLY	1	0	3	0	0	0	15	15	0	6	0	0	800.0		
2207040	LIME/HOSE	5	0	6	0	1	1	11	12	0	7	0	0	400.0		
SUBSYSTEM TOTAL			0	11	0	5	1	29	34	0	16	0	0			
SYSTEM TOTAL			11	142	232	212	25	478	947	17	274	16	3			
2600000 DRIVES - TRANSMISSION SYSTEM																
2601000 MAIN XMSN DRIVES SUBSYSTEM																
2601010	ENGINE DRIVE SHAFT	1	17	12	15	15	46	40	116	33	28	1	0	100.0		
2601030	SHAFT COUPLING-ZURN TYPE	2	5	4	30	10	8	8	56	8	7	0	0	100.0		
2601040	SHAFT TO COUPLING CLAMP	2	0	2	15	4	1	5	25	1	3	0	0	400.0		
SUBSYSTEM TOTAL			22	18	61	29	56	52	197	42	39	1	0			
2602000 TAIL ROTOR/AUX POWER LR SUBSYS																
2602010	T.R./AUX POWER PLANT SHAFT	6	18	1	91	90	27	2	209	21	2	0	0	100.0		
2602030	SHAFT COUPLING - ZURN TYPE	12	52	0	181	60	103	0	345	93	0	0	0	100.0		
2602040	SHAFT TO COUPLING CLAMP	12	3	10	93	22	6	27	149	4	19	0	0	400.0		
2602050	HANGER BEARING	4	49	0	30	20	99	0	149	89	0	0	0	100.0		
SUBSYSTEM TOTAL			122	11	395	192	235	29	852	207	20	0	0			
2606000 TRANSMISSION/GEARBOX SUBSYSTEM																
2606030	MAIN ROTOR TRANSMISSION ASSY	1	13	39	113	55	90	331	590	46	168	2	0	100.0		
2606040	INTERMEDIATE GEARBOX ASSY	1	8	15	53	35	15	32	135	13	26	2	1	100.0		
2606050	TAIL ROTOR GEARBOX ASSY	1	11	41	76	67	26	118	287	18	84	5	2	100.0		
SUBSYSTEM TOTAL			32	95	242	157	131	481	1012	77	278	8	4			

RATES PER 10,000 FLIGHT-HOURS

HUC	NOMENCLATURE	QPA	PREV RE- PAIR	UNSC RE- PAIR	F.R. INSP N/H	SCHD INSP N/H	PREV REPR M/H	UNSC REPR M/H	TOTAL M/H	PREV REPR ENT	UNSC REPR ENT	MIS- SION ABORT	IN- FLT ABORT	INTVL BETW INSP
2607000	TRANSMISSION OIL SUBSYSTEM													
2607040	OIL FILTER	2	0	0	16	6	0	0	22	0	0	0	0	800.0
2607050	OIL COOLER	1	0	6	8	0	0	12	21	0	12	1	0	800.0
2607060	THERMOSTATIC VALVE	1	0	1	0	0	0	1	1	0	1	0	0	800.0
	NO F.R. INSPECTION DUE TO NO TIME ALLOCATION IN MCF													
2607070	LINE/HOSE	10	0	5	0	2	1	12	15	1	9	2	0	400.0
	SUBSYSTEM TOTAL		1	12	23	9	1	26	59	1	22	3	1	
2608000	MOUNTS SUBSYSTEM													
2608010	PYLON MOUNT ASSEMBLY	1	13	10	15	50	61	54	180	43	37	0	0	100.0
2608020	DAMPER	5	4	6	38	12	25	46	122	15	27	0	0	100.0
2608030	LIFT LINK	1	3	4	8	7	5	8	29	4	6	0	0	100.0
	SUBSYSTEM TOTAL		21	20	60	70	92	108	330	62	71	0	0	
	SYSTEM TOTAL		197	156	782	457	515	696	2450	388	420	12	4	
2900000	POWER PLANT INSTALLATION SYS													
2901000	ENG MOUNT/SUSPENSION SUBSYS													
2901010	ENGINE MOUNT	3	11	8	16	15	27	22	80	18	15	1	0	100.0
2901020	ENGINE MOUNT BEARING	2	3	3	11	7	5	6	28	4	5	0	0	100.0
	SUBSYSTEM TOTAL		14	11	26	22	32	28	109	22	20	1	0	
2902000	ENG AIR PARTICLE SEPARTR SUBSYS													
2902010	PARTICLE SEPARATOR ASSY	1	10	2	23	20	15	3	61	14	3	0	0	100.0
	SUBSYSTEM TOTAL		10	2	23	20	15	3	61	14	3	0	0	
2903000	AIR INDUCTION SUBSYSTEM													

RATES PER 10,000 FLIGHT-HOURS														
WUC	NOMENCLATURE	QPA	PREV RE- PAIR	UNSC RE- PAIR	F.R. INSP N/H	SCHD INSP N/H	PREV REPR N/H	UNSC REPR N/H	TOTAL N/H	PREV REPR ENT	UNSC REPR ENT	MIS- SION ABORT	IN- FLT ABORT	INTVL BETW INSP
2903010	INLET SCREEN	1	2	2	8	5	2	3	18	2	3	0	0	100.0
2903020	INLET UUCT/PLENUM CHAMBER	1	18	14	8	5	35	32	79	31	28	0	0	100.0
	SUBSYSTEM TOTAL		20	16	15	10	37	35	97	33	31	0	0	
2904000	AIRCRAFT EXHAUST SUBSYSTEM													
2904010	TAILPIPE	1	0	1	8	2	0	1	11	0	1	0	0	200.0
2904030	TAILPIPE CLAMP/COUPLING	1	0	1	0	2	0	1	3	0	1	0	0	800.0
	SUBSYSTEM TOTAL		0	2	8	4	0	2	14	0	1	0	0	
2905000	AIRCRAFT BLEED AIR SUBSYSTEM													
2905010	BLEED AIR VALVE	1	0	1	0	0	0	2	3	0	2	0	0	400.0
2905020	LINE/HOSE	4	0	2	15	1	0	6	22	0	4	0	0	400.0
	SUBSYSTEM TOTAL		0	3	15	1	0	8	25	0	6	0	0	
2906000	ENG ANTI-ICE/DE-ICE SUBSYSTEM													
2906010	TEMPERATURE SENSOR	1	0	1	0	3	0	7	10	0	3	0	0	800.0
2906020	ENGINE ANTI-ICE SWITCH	1	0	0	0	1	0	0	1	0	0	0	0	400.0
2906030	SOLENOID VALVE	1	0	1	0	0	0	2	2	0	2	0	0	800.0
2906040	WIRING HARNESS	1	0	0	0	0	0	0	1	0	0	0	0	800.0
	SUBSYSTEM TOTAL		0	3	0	5	1	9	15	0	5	0	0	
2907000	START SUBSYSTEM													
2907010	STARTER SWITCH	1	0	1	0	2	1	3	5	0	1	0	0	100.0
2907020	STARTER RELAY	1	0	0	0	0	0	0	1	0	0	0	0	800.0
2907030	STARTER SOLENOID	1	0	4	0	0	0	11	11	0	7	0	0	800.0
2907040	STARTER GENERATOR	1	0	12	0	1	0	47	48	0	32	3	1	400.0
	SUBSYSTEM TOTAL		0	17	0	4	1	60	65	1	41	3	1	

INSPECTION SCHEME COMPONENT SUMMARY

MUC	NOMENCLATURE	QPA	RATES PER 10,000 FLIGHT-HOURS												IN- FLT ABORT	INTVL BETW INSP
			PREV RE- PAIR	UNSC RE- PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSC REPR M/H	TOTAL M/H	PREV REPR ENT	UNSC REPR ENT	MIS- SION ABORT				
2908000 THROTTLE/POWER LEVER SUBSYSTEM																
2908030	THROTTLE TWIST GRIP MECHANISM	2	0	1	31	1	1	0	5	37	0	4	0	0	800.0	
2908040	ENGINE CONTROL LINKAGE	18	4	2	130	22	4	2	165	4	2	0	0	0	100.0	
2908080	BOOT/SEAL	2	0	0	0	1	0	0	0	1	0	0	0	0	400.0	
2908090	DROOP COMPENSATOR CAM BOX	1	0	21	0	1	1	1	42	45	1	35	3	1	400.0	
2908100	TRIM SWITCH	2	0	0	0	1	0	0	0	2	0	1	0	0	800.0	
2908110	RPM CONTROL ACTUATOR	1	8	34	0	2	10	49	62	8	37	2	1	1	100.0	
2908120	ELECTRICAL HARNESS ASSY	1	0	0	0	0	0	0	0	2	0	1	0	0	800.0	
SUBSYSTEM TOTAL			13	58	167	29	15	101	313	12	80	5	2			
2909000 RPM WARNING SUBSYSTEM																
2909010	ENGINE SPEED SENSITIVE SWITCH	1	0	12	0	0	0	0	44	45	0	27	2	0	400.0	
2909020	RPM WARNING LIMIT DETECTOR/BOX	1	0	84	0	2	1	172	174	0	111	2	1	1	400.0	
2909030	AUDIO WARNING UNIT	1	0	13	0	1	0	0	26	27	0	17	0	0	400.0	
SUBSYSTEM TOTAL			1	109	0	3	1	1	242	247	1	155	5	1		
2910000 AIRCRAFT LUBRICATION SUBSYSTEM																
2910020	OIL COOLER BLOWER	1	2	1	8	5	4	4	4	20	3	3	0	0	100.0	
2910030	BLOWER DUCT	1	0	0	0	1	0	0	0	1	0	0	0	0	200.0	
2910040	OIL COOLER	1	1	0	8	4	3	11	26	3	10	0	0	0	100.0	
2910050	THERMOSTATIC BYPASS VALVE	1	0	0	0	0	0	0	0	1	0	0	0	0	800.0	
2910060	SOLENOID SHUT-OFF VALVE	1	0	0	0	0	0	0	0	1	0	1	0	0	800.0	
2910070	LINE/HOSE	22	1	12	85	4	2	26	118	1	15	1	1	0	400.0	
SUBSYSTEM TOTAL			4	18	100	15	9	43	167	7	28	1	0	0		

INSP SCHEME - 22
HEL0 MODEL - UM-1

INSPECTION SCHEME COMPONENT SUMMARY

PAGE 13

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	OPA	PREV RE- PAIR	UNSC RE- PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSC REPR M/H	TOTAL M/H	PREV REPR EMT	UNSC REPR ENT	MIS- SION ABORT	IN- FLT ABORT	INTVL BETM INSP
	SYSTEM TOTAL		62	238	355	113	111	532	1111	91	371	15	3	
	4200000 ELECTRICAL SYSTEM													
	4201000 AC POWER SUBSYSTEM													
	4201030 RELAY	1	0	*	0	0	0	*	1	0	1	0	0	800.0
	4201040 CURRENT LIMITER	20	0	2	0	1	0	6	6	0	1	0	0	800.0
	4201050 RECEPTACLE	4	1	1	0	10	1	1	12	1	1	0	0	100.0
	4201060 TRANSFORMER	1	0	2	0	0	0	3	4	0	3	1	1	800.0
	4201070 TRANSFORMER RECTIFIER	1	0	1	0	0	0	1	1	0	1	0	0	800.0
	4201080 INVERTER	2	3	20	0	7	4	39	51	3	27	2	1	100.0
	4201090 CONTROL SWITCH	2	2	10	0	6	5	30	42	3	17	2	1	100.0
	SUBSYSTEM TOTAL		6	37	0	25	11	81	117	7	50	5	3	
	4202000 DC POWER SUPPLY SUBSYSTEM													
	4202010 GENERATOR	1	2	12	0	20	7	54	80	3	28	3	0	100.0
	4202020 VOLTAGE REGULATOR	2	0	17	0	1	0	18	19	0	12	1	0	800.0
	4202030 RELAY	2	1	6	0	2	1	7	10	1	6	1	0	200.0
	4202040 CURRENT LIMITER	75	0	7	0	2	0	22	24	0	4	0	0	800.0
	4202050 RECEPTACLE	1	3	1	0	2	14	7	24	8	4	0	0	100.0
	4202060 BATTERY	1	31	86	8	38	25	82	152	22	72	3	0	100.0
	4202070 BATTERY SUMP JAR	1	13	2	8	25	19	3	54	16	2	0	0	100.0
	SUBSYSTEM TOTAL		51	131	15	90	66	192	363	50	127	8	0	
	4203000 ELECT PWR DISTRIBUTION SUBSYS													
	4203010 MASTER SWITCH CONTROL PANEL	1	0	*	0	0	0	*	1	0	0	0	0	800.0

INSPECTION SCHEME COMPONENT SUMMARY

		RATES PER 10,000 FLIGHT-HOURS														IN- FLY ABORT	INTVL BETW INSP
		QPA	PREV RE- PAIR	UNSC RE- PAIR	F.R. INSP N/H	SCHD INSP N/H	PREV REPR N/H	UNSC REPR N/H	TOTAL N/H	PREV REPR ENT	UNSC REPR ENT	MIS- SION ABORT					
WUC	NOMENCLATURE																
4203020	AIRCRAFT WIRING	1	1	26	0	22	1	58	82	1	46	1	0	400.0			
	SUBSYSTEM TOTAL		1	26	0	23	1	58	82	1	46	1	0				
	SYSTEM TOTAL		57	193	15	138	78	331	563	58	224	13	3				
4400000	LIGHTING SYSTEM																
4401000	INTERIOR LIGHTS SUBSYSTEM																
4401010	COCKPIT/CABIN LIGHT	4	0	24	31	0	0	23	55	0	17	0	0	800.0			
4401020	INSTRUMENT LIGHT	23	1	131	54	1	1	126	182	1	95	0	0	800.0			
4401030	CONTROL PANEL	1	6	43	8	2	8	67	86	6	47	0	0	100.0			
	SUBSYSTEM TOTAL		8	199	92	4	10	217	322	7	159	0	0				
4402000	EXTERIOR LIGHTS SUBSYSTEM																
4402010	LANDING LIGHT	1	5	26	8	2	4	25	39	3	22	0	0	100.0			
4402020	SEARCH LIGHT	1	7	27	15	5	6	29	55	6	26	0	0	100.0			
4402030	POSITION/FORMATION LIGHT	10	5	36	76	7	3	30	117	3	26	1	0	100.0			
4402040	ANTI-COLLISION LIGHT	1	1	48	8	1	1	63	73	1	52	1	0	400.0			
4402050	FLASHER UNIT	1	0	3	0	1	1	4	6	0	3	0	0	100.0			
4402060	CONTROL PANEL	1	0	1	8	0	0	1	8	0	1	0	0	800.0			
	SUBSYSTEM TOTAL		18	140	114	17	15	152	298	13	128	2	0				
	SYSTEM TOTAL		26	338	206	21	25	369	620	20	287	2	0				
4500000	HYDRAULIC POWER SYSTEM																
4501000	HYDRAULIC SOURCE/DISTRIB SUBSYS																
4501010	RESERVOIR	1	7	13	8	7	7	17	39	5	12	3	0	100.0			
4501020	HYDRAULIC PUMP	1	1	15	8	10	2	28	47	1	20	1	1	100.0			

INSP SCHEME - 22
HELO MODEL - UH-1

INSPECTION SCHEME COMPONENT SUMMARY

PAGE 15

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE- PAIR	UNSCY RE- PAIR	F.R. INSP M/H	SCHO INSP M/H	PREV REPR M/H	UNSCY REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCY REPR EMT	MIS- SION ABORT	IN- FLT ABORT	INTVL BETW INSP
	4501040 HYDRAULIC FILTER	2	23	23	15	50	32	39	136	20	25	0	0	100.0
	4501060 SOLENOID VALVE	1	0	4	0	0	0	4	1	0	0	0	0	800.0
	4501080 CHECK VALVE	10	0	4	0	3	0	10	14	0	6	0	0	400.0
	4501090 DRAIN VALVE	1	0	4	0	0	0	4	1	0	0	0	0	400.0
	4501110 SWITCH	1	2	12	0	3	4	22	29	2	15	2	0	100.0
	4501120 HOSE/LINE	45	0	4	174	8	0	6	189	0	5	0	0	400.0
	SUBSYSTEM TOTAL		34	72	205	83	46	123	456	30	84	6	1	
	4502000 HYDRAULIC BOOST SUBSYSTEM													
	4502040 CYLINDER	4	95	101	30	185	274	350	840	170	217	9	3	100.0
	4502060 IREVERSIBLE VALVE	3	1	3	0	2	3	11	15	2	7	0	0	400.0
	SUBSYSTEM TOTAL		96	104	30	197	277	361	855	172	225	9	3	
	SYSTEM TOTAL		129	176	235	270	322	484	1311	202	309	16	3	
	4600000 FUEL SYSTEM													
	4601000 FUEL SUPPLY/DISTRIB SUBSYSTEM													
	4601010 FUEL CELL	4	0	7	0	38	2	59	98	1	31	0	0	800.0
	4601020 SUMP PUMP	2	2	14	0	20	4	42	66	3	32	2	0	100.0
	4601030 FUEL FILTER	1	1	7	4	6	0	7	21	0	7	1	0	400.0
	4601040 LINE/HOSE	40	1	11	155	7	2	28	192	1	22	1	0	400.0
	4601090 DEFUELING VALVE	2	0	2	0	2	0	3	5	0	3	2	0	800.0
	4601100 SUMP DRAIN	4	0	4	0	1	0	2	3	0	2	1	0	800.0
	SUBSYSTEM TOTAL		3	45	163	75	8	141	387	4	94	6	0	
	SYSTEM TOTAL		3	45	163	75	8	141	387	6	96	6	0	

INSP SCHEME - 22
HELO MODEL - UH-1

INSPECTION SCHEME COMPONENT SUMMARY

PAGE 16

MUC	NOMENCLATURE	QPA	RATES PER 10,000 FLIGHT-HOURS										PREV RE-PAIR	UNSC RE-PAIR	F-R- INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSC REPR M/H	TOTAL M/H	PREV REPR EMT	UNSC REPR EMT	MIS- SION ABORT	IN- FLT ABORT	INTVL BETW INSP
4900000 MISCELLANEOUS UTILITIES SYSTEM																								
4903000 WINDSHIELD WIPER SUBSYSTEM																								
4903010	WIPER CONTROL PANEL	1	0	1	0	0	0	1	1	1	0	0	1	0	0	800.0	0	0	0	0	0	0	800.0	
4903020	WIPER MOTOR	2	0	*	0	2	0	*	4	4	0	0	1	0	0	400.0	0	0	0	0	0	0	400.0	
4903030	RELAY	1	0	*	0	0	0	*	1	1	0	0	1	0	0	800.0	0	0	0	0	0	0	800.0	
4903040	WIRING HARNESS	1	0	1	0	0	0	0	1	1	0	0	0	0	0	800.0	0	0	0	0	0	0	800.0	
4903060	BLADE ARM	2	0	2	0	0	0	3	4	4	0	0	3	0	0	800.0	0	0	0	0	0	0	800.0	
4903070	BLADE	2	0	*	0	1	0	*	1	1	0	0	0	0	0	400.0	0	0	0	0	0	0	400.0	
SUBSYSTEM TOTAL																								
4906000	CARGO SUSPENSION SUBSYSTEM		0	5	0	4	1	7	13	13	1	6	1	0	0									
4906000 CARGO SUSPENSION SUBSYSTEM																								
4906010	CARGO SUSPENSION ASSEMBLY	1	0	1	23	6	0	1	31	31	0	1	0	0	0	400.0	0	0	0	0	0	0	400.0	
4906020	CARGO HOOK ASSEMBLY	1	0	3	16	2	0	6	25	25	0	5	0	0	0	800.0	0	0	0	0	0	0	800.0	
4906030	CARGO RELEASE PEDAL/CABLE	1	0	3	0	2	1	6	9	9	1	6	0	0	0	400.0	0	0	0	0	0	0	400.0	
4906040	RELEASE SOLENOID	1	1	8	0	2	4	34	40	40	2	18	3	1	1	100.0	0	0	0	0	0	0	100.0	
4906050	RELEASE RELAY	1	0	1	0	0	0	1	2	2	0	1	0	0	0	800.0	0	0	0	0	0	0	800.0	
SUBSYSTEM TOTAL																								
4907000	COMBUSTION HEAT/DEFOG SUBSYS		2	15	39	13	5	49	106	106	3	31	4	1	1									
4907000 COMBUSTION HEAT/DEFOG SUBSYS																								
4907010	COMBUSTION HEATER ASSEMBLY	1	0	4	0	3	1	13	17	17	0	7	1	0	0	400.0	0	0	0	0	0	0	400.0	
4907020	AIR BLOWER	1	2	8	0	7	6	29	42	42	3	16	0	0	0	100.0	0	0	0	0	0	0	100.0	
4907030	VENTILATION/HEATER DUCT	5	0	1	0	1	0	2	3	3	0	2	0	0	0	800.0	0	0	0	0	0	0	800.0	
4907040	AIR PRESSURE SWITCH	1	1	3	0	2	3	9	14	14	2	7	0	0	0	100.0	0	0	0	0	0	0	100.0	
4907050	CABIN HEAT CONTROL PANEL	1	0	1	0	0	0	1	1	1	0	1	0	0	0	800.0	0	0	0	0	0	0	800.0	

INSPECTION SCHEME COMPONENT SUMMARY

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE- PAIR	UNSCH RE- PAIR	F.A. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H	PREV REPR EMT	UNSCH REPR EMT	MIS- SIGN ABORT	IN- FLT ABORT	INTVL BETH INSP
4907040	HEATER FUEL LINE	10	1	5	39	2	0	5	46	0	5	0	0	400.0
	SUBSYSTEM TOTAL		4	22	39	16	10	58	122	6	36	1	0	
4908000	BLEED AIR HEAT/DEFROG SUBSYSTEM													
4908010	CONTROL PANEL	1	0	1	0	1	0	2	3	0	2	0	0	800.0
4908020	SOLENOID VALVE	1	0	0	0	0	0	0	1	0	0	0	0	800.0
4908030	HEATER DUCT	25	0	2	0	2	0	3	6	0	2	0	0	800.0
	SUBSYSTEM TOTAL		0	3	0	4	0	6	10	0	4	0	0	
4909000	ELECTRIC CHIP DETECTOR SUBSYS													
4909020	CHIP DETECTOR	4	0	7	0	6	0	8	15	0	7	1	0	900.0
	SUBSYSTEM TOTAL		0	7	0	6	0	8	15	0	7	1	0	
	SYSTEM TOTAL		7	53	78	43	16	128	266	10	85	6	2	
5100000	INSTRUMENT SYSTEM													
5101000	FLIGHT INDICATORS SUBSYSTEM													
5101010	AIRSPEED	2	2	12	15	2	3	19	40	2	11	0	0	100.0
5101020	VERTICAL CLIMB	2	0	7	0	0	0	9	9	0	5	0	0	800.0
5101030	BAROMETRIC ALTIMETER	2	0	32	0	1	0	34	35	0	23	0	0	400.0
5101040	RATE OF CLIMB	2	0	6	0	2	0	10	13	0	5	0	0	800.0
5101050	DIRECTIONAL GYRO	2	0	2	0	0	0	2	2	0	2	0	0	800.0
5101060	TURN/SKIP	2	0	5	0	2	0	5	7	0	4	0	0	900.0
5101070	ATTITUDE INDICATOR	2	0	36	0	5	0	47	53	0	35	1	1	400.0
5101080	CRUISE GUIDF INDICATOR	1	0	2	0	0	0	3	3	0	2	0	0	900.0
	SUBSYSTEM TOTAL		3	102	15	14	3	130	163	2	86	1	1	

UUC	NOMENCLATURE	QPA	PREV RE- PAIR	UNSC RE- PAIR	F-N- INSP M/H	RATES PER 10,000 FLIGHT-HOURS				PREV REPR EMT	UNSC REPR EMT	MIS- STOM ABORT	IN- FLT ABORT	INTVL BTM INSP	
						SCHO INSP M/H	PREV REPR M/H	UNSC REPR M/H	TOTAL M/H						
5102000 MISC FLIGHT INSTRUMENTS SUBSYS															
5102010	AC VOLTMETER	1	0	3	0	3	0	0	3	6	0	2	0	0	800.0
5102020	DC VOLTMETER	1	0	5	0	3	0	0	5	7	0	4	0	0	800.0
5102030	DC LOADMETER	2	0	10	0	0	0	0	9	10	0	8	0	0	800.0
5102040	CLOCK	1	0	19	0	1	0	0	19	20	0	14	0	0	400.0
5102050	OUTSIDE AIR TEMPERATURE	1	0	4	0	0	0	0	3	3	0	2	0	0	800.0
5102060	MASTER CAUTION LIGHT	1	1	8	0	0	1	1	13	15	1	10	1	0	100.0
5102070	MASTER FIRE WARNING LIGHT	1	0	3	0	0	0	0	10	10	0	5	0	0	800.0
5102080	CAUTION LIGHT	16	0	21	0	1	0	0	25	26	0	20	1	0	800.0
SUBSYSTEM TOTAL															
			2	73	0	9	2	2	87	97	1	64	2	0	
5103000 PITOT STATIC SUBSYSTEM															
5103010	PITOT HEAD	1	0	1	23	2	0	0	1	27	0	1	0	0	400.0
5103020	STATIC HEAD	1	0	4	8	1	0	0	4	9	0	0	0	0	900.0
5103030	PITOT HEAT SWITCH	1	0	4	15	1	0	0	4	17	0	0	0	0	400.0
5103040	LINE/HOSE	15	0	3	0	1	0	0	3	5	0	2	0	0	800.0
5103050	DRAIN VALVE	1	0	1	0	1	0	0	2	3	0	1	0	0	800.0
SUBSYSTEM TOTAL															
			0	5	47	6	0	0	7	60	0	5	0	0	
5104000 NAVIGATIONAL INDICATORS SUBSYS															
5104010	MAGNETIC COMPASS	1	3	8	0	1	3	10	15	2	3	0	0	0	100.0
SUBSYSTEM TOTAL															
			3	8	0	1	3	10	15	2	8	0	0		
5105000 COMPASS SUBSYSTEM															
5105010	RADIO MAGNETIC INDICATOR	2	0	8	0	0	0	0	9	9	0	8	0	0	800.0

INSP SCHEME - 22
MELD MODEL - UM-1

INSPECTION SCHEME COMPONENT SUMMARY

PAGE 19

RATES PER 10,000 FLIGHT-HOURS

NUC	NOMENCLATURE	QPA	PREV RE- PAIR	UNSC RE- PAIR	F.A. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSC REPR M/H	TOTAL M/H	PREV REPR ENT	UNSC REPR ENT	MIS- SION ABORT	IN- FLY ABORT	INTVL BETW INSP
5105020	COMPASS TRANSMITTER	1	0	2	0	0	0	4	4	0	4	0	0	800.0
5105030	AMPLIFIER	1	3	17	0	2	5	31	38	3	23	0	0	100.0
5105040	DIRECTIONAL GYRO	1	0	24	0	1	0	35	36	0	29	1	1	400.0
	SUBSYSTEM TOTAL		3	52	0	4	5	79	87	4	63	1	1	
5106000	ENGINE INSTRUMENTS SUBSYSTEM													
5106010	DUAL TACH INDICATOR	1	2	7	8	1	2	8	19	2	7	0	0	100.0
5106020	TACH GENERATOR	2	0	22	0	1	0	24	25	0	21	2	0	400.0
5106030	OIL TEMPERATURE INDICATOR	1	0	3	8	1	0	3	12	0	3	0	0	100.0
5106040	OIL TEMPERATURE BULB	1	0	1	0	0	0	0	1	0	0	0	0	800.0
5106050	OIL PRESSURE INDICATOR	1	1	7	8	1	1	8	17	1	6	0	0	100.0
5106060	OIL PRESS TRANSMITTER	1	0	10	0	0	0	16	17	0	12	0	0	400.0
5106070	FUEL PRESSURE INDICATOR	1	1	4	8	1	1	5	16	1	4	0	0	100.0
5106080	FUEL PRESSURE TRANSMITTER	1	0	22	0	0	0	37	38	0	32	0	0	400.0
5106090	TORQUE INDICATOR	1	0	12	8	0	0	12	20	0	10	0	0	400.0
5106100	TORQUE SENSOR TRANSMITTER	1	0	2	0	0	0	4	4	0	3	0	0	800.0
5106110	EXHAUST GAS TEMP INDICATOR	1	1	15	8	13	2	42	64	1	26	0	0	200.0
5106120	EXHAUST THERMOCOUPLE ASSY	1	0	2	0	3	0	4	7	0	4	0	0	800.0
	SUBSYSTEM TOTAL		7	107	46	24	8	163	240	6	128	4	0	
5107000	DRIVE SYS INSTRUMENTS SUBSYS													
5107010	OIL PRESSURE INDICATOR	1	0	3	8	0	0	5	13	0	4	0	0	800.0
5107020	OIL PRESSURE TRANSMITTER	1	1	3	0	2	1	3	6	1	3	0	0	100.0
5107040	TACH INDICATOR	1	0	6	8	0	0	9	17	0	5	1	0	800.0

INSP SCHEME - 22
HELIC MODEL - UH-1

INSPECTION SCHEME COMPONENT SUMMARY

PAGE 20

RATES PER 10,000 FLIGHT-HOURS														
WUC	NOMENCLATURE	QPA	PREV RE- PAIR	UNSC RE- PAIR	F.R. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSC REPR M/H	TOTAL M/H	PREV REPR EMT	UNSC REPR EMT	MIS- SION ABORT	IN- FLT ABORT	INTVL BETW INSP
5107050	TACH GENERATOR	1	0	8	0	0	0	16	16	0	10	0	0	800.0
5107060	OIL TEMPERATURE INDICATOR	1	0	3	8	0	0	5	13	0	3	0	0	800.0
5107080	OIL TEMPERATURE BULB	1	0	1	0	0	0	1	1	0	1	0	0	800.0
5107090	THERMOSWITCH	1	0	1	0	0	0	6	6	0	3	0	0	800.0
	SUBSYSTEM TOTAL		1	26	23	3	1	45	73	1	30	2	0	
5108000	FUEL QUANTITY SUBSYSTEM													
5108010	FUEL QUANTITY INDICATOR	1	5	11	8	7	5	13	33	4	10	0	0	100.0
5108030	FUEL QUANTITY TRANSMITTER	4	0	1	0	1	0	4	5	0	2	0	0	800.0
5108040	LOW LEVEL SWITCH	1	0	1	0	0	0	4	5	0	3	0	0	400.0
	SUBSYSTEM TOTAL		5	13	8	9	5	21	43	4	16	0	0	
5109000	HYDRAULIC INSTRUMENTS SUBSYS													
5109030	PRESSURE TRANSMITTER	1	0	24	0	0	0	26	27	0	20	2	1	400.0
	SUBSYSTEM TOTAL		0	24	0	0	0	26	27	0	20	2	1	
	SYSTEM TOTAL		23	412	138	70	27	569	804	20	421	11	4	
9100000	EMERGENCY EQUIP SYSTEM													
9101000	FIRE FIGHTING EQUIP SUBSYSTEM													
9101010	PORTABLE FIRE BOTTLE	1	0	2	0	1	0	1	2	0	1	0	0	400.0
	SUBSYSTEM TOTAL		0	2	0	1	0	1	2	0	1	0	0	
9102000	MEDICAL EQUIP SUBSYSTEM													
9102010	FIRST AID KIT	4	0	8	0	2	0	8	2	0	0	0	0	800.0
	SUBSYSTEM TOTAL		0	0	0	2	0	0	2	0	0	0	0	
9103000	SURVIVAL EQUIP SUBSYSTEM													

RATES PER 10,000 FLIGHT-HOURS

WUC	NOMENCLATURE	QPA	PREV RE- PAIR	UNSCD RE- PAIR	FA-4 INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCD REPR M/H	TOTAL M/H	PREV REPR ENT	UNSCD REPR ENT	MIS- SION ABORT	IN- FLY ABORT	INTVL BETW INSP
9103010	SURVIVAL KIT	1	0	0	0	1	0	0	1	0	0	0	0	400.0
	SUBSYSTEM TOTAL		0	0	0	1	0	0	1	0	0	0	0	
	SYSTEM TOTAL		0	2	0	4	0	1	5	0	1	0	0	
	ALL SYSTEM TOTAL	1173	2931	4514	2527	2616	7360	17014	1843	4755	147	35		

INSPECTION SCHEME COMPONENT SUMMARY

INSP SCHEME - 22
HELO MODEL - UH-1

MUC	NOMENCLATURE	QPA	RATES PER 10,000 FLIGHT-HOURS										PREV REPR EMT	UNSC: REPR EMT	MIS- SION ABORT	IN- FLY ABORT	INTVL BETW INSP
			PREV RE- PAIR	UNSCH RE- PAIR	F.N. INSP M/H	SCHD INSP M/H	PREV REPR M/H	UNSCH REPR M/H	TOTAL M/H								
			1173	2931	4514	2527	2616	7360	17016	1943	4759	147	35				
	ALL SYSTEM TOTAL																

		INSPECTION INTERVALS (100 HOURS)											
		1	2	3	4	5	6	7	8	9	10	11	12
SYSTEM	MOS												
11 AIRFRAME SYSTEM	67W20	3.7	2.4	2.4	2.9	3.7	2.4	2.4	2.4				
	35K20	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0				
	TOTAL	3.7	2.4	2.4	3.1	3.7	2.4	2.4	2.4				
12 FUSELAGE COMPARTMENT SYSTEM	67W20	0.2	0.1	0.1	1.6	0.2	0.1	0.1	0.1				
	TOTAL	0.2	0.1	0.1	1.6	0.2	0.1	0.1	0.1				
13 LANDING GEAR SYSTEM	67W20	0.5	0.3	0.3	0.3	0.5	0.3	0.3	0.3				
	TOTAL	0.5	0.3	0.3	0.3	0.5	0.3	0.3	0.3				
14 FLIGHT CONTROLS SYSTEM	67W20	6.3	5.8	5.8	6.3	6.3	5.8	5.8	5.8				
	TOTAL	6.3	5.8	5.8	6.3	6.3	5.8	5.8	5.8				
15 ROTOR SYSTEM	67W20	1.8	1.7	1.7	1.7	1.8	1.7	1.7	1.7				
	TOTAL	1.8	1.7	1.7	1.7	1.8	1.7	1.7	1.7				
22 TURBOSHAFT ENGINE SYSTEM	67W20	6.3	0.3	0.3	2.6	6.3	0.3	0.3	0.3				
	TOTAL	6.3	0.3	0.3	2.6	6.3	0.3	0.3	0.3				
26 DRIVES - TRANSMISSION SYSTEM	67W20	4.2	5.3	4.2	4.8	4.2	5.3	4.2	4.2				
	TOTAL	4.2	5.3	4.2	4.8	4.2	5.3	4.2	4.2				
29 POWER PLANT INSTALLATION SYS	67W20	0.9	1.5	0.9	1.6	0.9	1.5	0.9	1.0				
	TOTAL	0.9	1.5	0.9	1.6	0.9	1.5	0.9	1.0				
42 ELECTRICAL SYSTEM	67W20	1.1	2.0	1.1	1.1	1.1	2.0	1.1	1.5				
	TOTAL	1.1	2.0	1.1	1.1	1.1	2.0	1.1	1.5				
44 LIGHTING SYSTEM	67W20	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3				
	TOTAL	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3				
45 HYDRAULIC POWER SYSTEM	67W20	2.6	3.1	2.6	2.6	2.6	3.1	2.6	2.6				
	TOTAL	2.6	3.1	2.6	2.6	2.6	3.1	2.6	2.6				
46 FUEL SYSTEM	67W20	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7				
	TOTAL	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.7				

SYSTEM	MOS	INSPECTION INTERVALS (100 HOURS)											
		1	2	3	4	5	6	7	8	9	10	11	12
49 MISCELLANEOUS UTILITIES SYSTEM	67W20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	TOTAL	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
51 INSTRUMENT SYSTEM	67W20	0.2	0.4	0.5	0.4	0.2	0.4	0.4	0.5	0.5	0.5	1.9	1.9
	35K20	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.3	0.3
	TOTAL	0.2	0.4	0.7	0.4	0.2	0.4	0.4	0.7	0.5	0.7	2.2	2.2
91 EMERGENCY EQUIP SYSTEM	67W20	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
	TOTAL	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
TOTAL ALL SYSTEMS	67W20	28.2	23.7	21.6	26.4	28.2	23.7	21.6	27.2	27.2	27.2	27.2	27.2
	35K20	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.2	0.2	0.2	0.3	0.3
	INSPECTION TOTAL	28.2	23.7	21.8	26.6	28.2	23.7	21.6	27.4	27.4	27.4	27.5	27.5
CLEANING & ACCESS TIME		6.1	5.1	4.8	5.8	6.1	5.1	4.8	6.0	6.0	6.0	6.0	6.0
LUBE & PREV. MAINT. TIME		3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
	TOTAL	38.0	32.5	30.3	36.1	38.0	32.5	30.3	37.1	37.1	37.1	37.2	37.2

• PREVENTIVE REPAIR MAN-HOUR SUMMARY •

SYSTEM	MOS	INSPECTION INTERVALS (100 HOURS)											
		1	2	3	4	5	6	7	8	9	10	11	12
11 AIRFRAME SYSTEM	67N20	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4				
	68E20	6.4	5.9	5.9	5.9	6.4	5.9	5.9	5.9				
	TOTAL	6.8	6.3	6.3	6.3	6.8	6.3	6.3	6.3				
12 FUSELAGE COMPARTMENT SYSTEM	67N20	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0				
	68E20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	TOTAL	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0				
13 LANDING GEAR SYSTEM	67N20	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	68E20	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
	TOTAL	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
14 FLIGHT CONTROLS SYSTEM	67N20	4.3	4.2	4.2	4.2	4.3	4.2	4.2	4.2				
	68F20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	68E20	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4				
TOTAL	4.7	4.5	4.5	4.5	4.6	4.5	4.5	4.5	4.5				
15 ROTOR SYSTEM	67N20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	68E20	2.7	2.6	2.6	2.6	2.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6
	TOTAL	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
22 TURBOSHAFT ENGINE SYSTEM	67N20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	68E20	0.3	0.1	0.1	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	TOTAL	0.4	0.2	0.2	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2
26 DRIVELS - TRANSMISSION SYSTEM	67N20	0.9	1.0	0.9	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.9	0.9
	68D20	4.1	4.4	4.1	4.1	4.1	4.4	4.1	4.1	4.1	4.1	4.1	4.1
	TOTAL	5.1	5.4	5.1	5.1	5.1	5.4	5.1	5.1	5.1	5.1	5.1	5.1
29 POWER PLANT INSTALLATION SYS	67N20	0.6	0.7	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6
	68G20	0.3	0.4	0.3	0.4	0.3	0.4	0.3	0.4	0.3	0.4	0.3	0.4
	68F20	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.2
TOTAL	1.0	1.3	1.0	1.0	1.0	1.3	1.0	1.0	1.0	1.0	1.0	1.0	
42 ELECTRICAL SYSTEM	67N20	1.1	1.3	1.1	1.1	1.1	1.3	1.1	1.1	1.1	1.1	1.1	1.1
	68F20	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
	TOTAL	1.9	2.1	1.9	1.9	1.9	2.1	1.9	1.9	1.9	1.9	1.9	1.9

SYSTEM	MOS	INSPECTION INTERVALS (100 HOURS)											
		1	2	3	4	5	6	7	8	9	10	11	12
44 LIGHTING SYSTEM	68F20	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.3				
	TOTAL	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.3				
45 HYDRAULIC POWER SYSTEM	67N20	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3				
	68F20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	68H20	2.8	3.0	2.8	2.8	2.8	3.0	2.8	2.8				
46 FUEL SYSTEM	TOTAL	3.2	3.3	3.2	3.2	3.2	3.3	3.2	3.2				
	67N20	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1				
	68F20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
49 MISCELLANEOUS UTILITIES SYSTEM	TOTAL	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.2				
	67N20	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1				
	68G20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
51 INSTRUMENT SYSTEM	68F20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
	TOTAL	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2				
	67N20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1				
91 EMERGENCY EQUIP SYSTEM	35K20	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0				
	68F20	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2				
	TOTAL	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.3				
TOTAL ALL SYSTEMS	67N20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	67N20	8.1	7.8	7.9	7.9	8.1	7.8	7.9	7.9				
	68G20	5.7	6.3	6.3	6.3	6.7	6.3	6.3	6.3				
	35K20	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0				
	68F20	1.5	1.6	1.5	1.5	1.5	1.6	1.5	1.6				
	68E20	3.0	3.0	2.0	3.0	3.0	3.0	3.0	3.0				
	68G20	0.3	0.1	0.1	0.2	0.3	0.1	0.1	0.1				
	68D20	4.1	4.4	4.1	4.1	4.1	4.4	4.1	4.1				
	68H20	2.8	3.0	2.8	2.8	2.8	3.0	2.8	2.8				
	TOTAL	27.	26.	26.	26.	27.	26.	26.	26.				

SYSTEM		MOS	INSPECTION INTERVALS (100 HOURS)											
			1	2	3	4	5	6	7	8	9	10	11	12
11	AIRFRAME SYSTEM													
	67N20	0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	68E20	4.4	4.1	4.1	4.1	4.4	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.4
TOTAL		4.7	4.4	4.4	4.4	4.7	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
12	FUSELAGE COMPARTMENT SYSTEM													
	67N20	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	68E20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL		0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	LANDING GEAR SYSTEM													
	67N20	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	TOTAL	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
14	FLIGHT CONTROLS SYSTEM													
	67N20	3.0	2.9	2.9	2.9	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
	68E20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL		3.4	3.2	3.2	3.3	3.3	3.4	3.2	3.2	3.2	3.2	3.2	3.2	3.2
15	ROTOR SYSTEM													
	67N20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	68E20	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
TOTAL		2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
22	TURBOSHAFT ENGINE SYSTEM													
	67N20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	68E20	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
TOTAL		0.3	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
26	DRIVES - TRANSMISSION SYSTEM													
	67N20	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	68D20	3.2	3.4	3.2	3.2	3.2	3.4	3.2	3.2	3.2	3.2	3.2	3.2	3.2
TOTAL		3.8	4.0	3.8	3.8	3.8	4.0	3.8	3.8	3.8	4.0	3.8	3.8	3.8
29	POWER PLANT INSTALLATION SYS													
	67N20	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	68E20	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
TOTAL		0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
42	ELECTRICAL SYSTEM													
	68F20	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	TOTAL	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6

SYSTEM	MOS	INSPECTION INTERVALS (100 HOURS)											
		1	2	3	4	5	6	7	8	9	10	11	12
44 LIGHTING SYSTEM	68F20	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
	TOTAL	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
45 HYDRAULIC POWER SYSTEM	67N20	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	68F20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	68H20	1.8	1.9	1.8	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8
	TOTAL	2.0	2.1	2.0	2.0	2.0	2.1	2.0	2.0	2.0	2.0	2.0	2.0
46 FUEL SYSTEM	67N20	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
	68F20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
49 MISCELLANEOUS UTILITIES SYSTEM	67N20	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
	68G20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	68F20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	TOTAL	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
51 INSTRUMENT SYSTEM	67N20	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0
	35K20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	68F20	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	TOTAL	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2
91 EMERGENCY EQUIP SYSTEM	67N20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	TOTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL ALL SYSTEMS	67N20	5.4	5.2	5.3	5.3	5.4	5.2	5.3	5.3	5.3	5.3	5.3	5.3
	68G20	4.7	4.5	4.5	4.5	4.7	4.5	4.5	4.5	4.5	4.5	4.5	4.5
	35K20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	68F20	1.1	1.2	1.1	1.1	1.1	1.2	1.1	1.1	1.1	1.1	1.2	1.2
	68E20	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
	68B20	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	68D20	3.2	3.4	3.2	3.2	3.2	3.4	3.2	3.2	3.2	3.2	3.2	3.2
	68H20	1.8	1.9	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.8	1.8	1.8
	TOTAL	19.0	19.0	18.0	18.0	19.0	19.0	18.0	18.0	18.0	18.0	18.0	18.0

INSP SCHEME - 22
HELO MODEL - UH-1

* SCHEDULED INSPECTION SUMMARY *

PAGE 29

SCHEDULED EFFECTIVE MAN-HOURS		INSPECTION INTERVALS (100 HOURS)											
SYSTEMS		1	2	3	4	5	6	7	8	9	10	11	12
11	AIRFRAME SYSTEM	10.5	8.7	8.7	9.4	10.5	8.7	8.7	8.7				
12	FUSELAGE COMPARTMENT SYSTEM	0.3	0.1	0.1	1.7	0.3	0.1	0.1	0.1				
13	LANDING GEAR SYSTEM	1.6	1.4	1.4	1.4	1.6	1.4	1.4	1.4				
14	FLIGHT CONTROLS SYSTEM	11.0	10.4	10.4	10.9	11.0	10.4	10.4	10.4				
15	ROTOR SYSTEM	4.5	4.4	4.4	4.4	4.5	4.4	4.4	4.4				
22	TURBOSHAFT ENGINE SYSTEM	6.7	0.5	0.5	2.9	6.7	0.5	0.5	0.5				
26	DRIVES - TRANSMISSION SYSTEM	9.3	10.7	9.3	9.8	9.3	10.7	9.3	9.3				
29	POWER PLANT INSTALLATION SYS	1.9	2.7	1.9	2.7	1.9	2.7	1.9	2.1				
42	ELECTRICAL SYSTEM	1.8	2.8	1.8	1.9	1.8	2.8	1.8	2.3				
44	LIGHTING SYSTEM	0.4	0.5	0.4	0.4	0.4	0.5	0.4	0.6				
45	HYDRAULIC POWER SYSTEM	5.7	6.4	5.7	5.7	5.7	6.4	5.7	5.8				
46	FUEL SYSTEM	0.2	0.2	0.9	0.2	0.2	0.2	0.9	3.7				
49	MISCELLANEOUS UTILITIES SYSTEM	0.2	0.2	1.0	0.2	0.2	0.2	1.0	1.5				
51	INSTRUMENT SYSTEM	0.4	0.7	1.1	0.7	0.4	0.7	1.1	2.5				
91	EMERGENCY EQUIP SYSTEM	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1				
TOTAL SCHEDULED EFFECTIVE MAN-HOURS		55	50	48	53	55	50	48	54				

TOTAL SCHEDULED ACTUAL MAN-HOURS		55	50	48	53	55	50	48	54
TOTAL SCHEDULED DOWNTIME HOURS		24	21	20	23	24	21	20	23
AVE. CREW SIZE - INSPECTION		2	2	2	2	2	2	2	2
AVE CREW SIZE - REPAIR		2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9

END