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May 12, 1980

U.S. Army Aviation Research
and Development Command
P. O. Box 209
St. Louis, MO 63166

ATTN: Captain James D. Bush
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DRDAV-PDF

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JUN 13 1980
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REFERENCE: DO DAAJ01-77-A-0012-0006 (P6D)
BOA DAAJ01-77-A-0012 (P6D)

Dear Captain Bush:

Please find enclosed our Final Report in accordance with Section E.1, Data Item A006, on the above referenced contract.

Should you have any questions or comments, please contact the undersigned.

Sincerely,

J. Thomas Harrington
Director of Research

JTH/pat

Enclosures

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CRITICAL PARTS.

FINAL REPORT

11, May 24

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DO DAAJ01-77-A-0012/0006 (P6D)

BOA DAAJ01-77-A-0012 (P6D)

MAY 12, 1980

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Date *A*

STATEMENT OF WORK PERFORMED AND RESULTS

This study's objectives are (1) to develop the methodology for assessing Disassembly Inspection Reports AND, ~~which would allow, (2)rd identification of those items/parts critical to flight safety.~~

The following reflects Task 1 - Review of Disassembly Inspection Data and Crash Facts.

DIRS

Time Frame for Each Fleet
Jan 73 - Nov 79

<u>Fleet</u>	<u>Number of Data</u>
UH-1	517
AH-1	131
OH-6	61
OH-58	360
CH-47	205

The above data was screened by part number and failure mode, but could not be related to mishap class, which is not available in DIR's.

CRASH FACTS

Time Frame for Each Fleet
June 73 - Nov 79

<u>Fleet</u>	<u>Number of Data</u>
UH-1	5,150
AH-1	1,014
OH-6	131
OH-58	1,439
CH-54	80
CH-47	718

The above data was screened by part number, functional group and mishap class. Maintenance induced cases were eliminated from data. Screening was performed manually for all criteria from hardcopy printouts transmitted by TSARCOM (Appendices A and B).

Appendix A shows the listing by fleet, of the number of failures (highest to lowest) by part number, nomenclature, and number of failures by failure code. This listing was developed from DIR data.

Appendix B shows the listing by fleet, of the number of failures (highest to lowest) by part number, nomenclature, and failures by mishap class. This listing was developed from Crash Facts data. An attempt was made to insure equivalency between the total number

of failures found in the DIR's and Crash Facts, but there are discrepancies due to gaps in data recording, and lack of tear downs resulting from Precautionary Landings.

Concerns raised by data screening and evaluation are:

- 1) Cannot correlate DIR's data with mishap information;
- 2) Cannot identify specific tail number identities associated with specific mishaps due to litigation potential;
- 3) Data not complete, e.g. missing failure codes, part numbers, poor reproduction quality, etc. on specific DIR's and/or in Crash Facts.

Evaluation of the Elements of Task 2:

- 2a) The first step in assessing the magnitude of actual and potential hazards in a system was accomplished by constructing a matrix relating number of failures by functional group to mishap class (See Appendix C for Matrix and Mishap Class definition).

No further update of data was accomplished due to the emphasis on using the DIR Data System for developing criticality. However, as is stated below in this report, relating mishap class, costs, and failure frequency and mode could be the vehicle

for developing a systematic approach for assessing not only magnitude of actual hazards, but also, potentiality of hazards within individual aircraft systems.

For example, in attempting to use mishaps as an indicator of flight safety, DIR's cannot be used, as mishap class is not recorded as Data Input for DIR programs as shown below:

DATA INPUT CARDS FOR DIR PROGRAMS

Card A	<u>Control No.</u>	<u>Date Rec'd</u>	<u>Tail No.</u>	<u>TMS</u>
	<u>Comp. Nom.</u>	<u>PN</u>		
Card B	<u>Control No.</u>	<u>Comp. SN</u>	<u>FMC</u>	<u>Date Rem'd</u>
	<u>TSN</u>	<u>TSO</u>	<u>No. Overhauls</u>	<u>Date Last OH</u>
	<u>OH Activity</u>	<u>Rem. Code</u>	<u>EIR No.</u>	<u>Findings</u>
Card C	<u>Control No.</u>	<u>Failed PN</u>	<u>Fail Code</u>	<u>Report Type</u>

Another alternative, however, is the establishment of an integrated DIR/CRASH FACTS System. Of two other alternatives, one would be limited additions of necessary data to the current DIR input or two, establishing a new total information reporting system. The latter, obviously, would be costly in both time and dollars.

Conclusions, drawn by the study group, however, point to the duplication of effort already in the systems(s) and the need, at a minimum, for a

coordinative agent to establish first, the needs of the various components of TSARCOM, and then, establishing the necessary data base and retrieval system to meet those needs. It is strongly felt by the study group that the development of an integrated, agreed upon data base system, with data clearly classified and validated before entry into the system with evergreen procedures, must be accomplished before any rigorous examination of criticality can be considered. This statement relates both to maintenance induced failures as well as material induced.

The November Progress Report also stated that a time series analysis would be developed to indicate trend values for individual systems, along with a relative measure of specific failures to total number of failures. The latter item was accomplished but results were of minimal value. The time series analysis was evaluated, but eliminated from further study due to data limitations.

- 2b) Calculation of associated probabilities for identification of critical components has been limited by data. Two approaches were developed. One using a frequency distribution (See example in Appendix D). The second uses this distribution

along with the matrix developed in 2a and cost data (Appendix E). From this data, an Expected Value of Cost was computed as follows.

If cost can be assumed to be related to safety, then the determination of critical could be narrowed to cost. For example, a total loss accident with bodily injuries or fatalities would certainly show up as a very high cost.

One method that is used is the matrix of median costs (Appendix E) by functional groups and accident classes (similar to the matrix of failures). A cell with a high median cost directs attention to a potentially critical area to be investigated.

Using the matrix relating number of failures by functional group to mishap class (Appendix C) and the matrix relating median cost by functional group to mishap class (Appendix E), we can compute a conditional expected value of median cost of a failure for each functional group. The formula is:

$$E(C/ J=j) = \sum_{i=1}^6 c(i,j)p(i/J=j)$$

for $j= 1, 2, 3, 4, 6, 8, 9, 10, 11, 12, 17, 19$ and 30 . In this formula, i is the mishap class, $J=j$ is the functional group, C is the median cost of

a failure, $c(i,j)$ is the median cost of a failure for mishap class i and functional group j , $p(i/J=j)$ is the conditional probability of the failure leading to a mishap in class i given that the mishap was a result of a problem in functional group $J=j$, and $E(C/J=j)$ is the expected value of median cost of a failure in functional group j .

Using the CH-47 Fleet as an example, we obtained the following results:

<u>J=j</u>	<u>Expected Value of Median Cost</u>
1	$E(C/J=1)=2491(20/37)+0(17/37)= \$1,346.49$
2	$E(C/J=2)=9915(4/5)+0(1/5)= \$7,932.00$
3	$E(C/J=3)=2026200(1/165)+184879(1/165)+14500(2/165)+0(161/165)= \$13,400.48$
4	$E(C/J=4)=3223625(1/159)+157528(3/159)+0(155/159)= \$23,246.60$
6	$E(C/J=6)=0(132/132)= \$0.00$
8	$E(C/J=8)=8472(1/33)+0(32/33)= \256.73
9	$E(C/J=9)=0(37/37)= \$0.00$
10	Cannot be computed at present time because of missing cost data.
11	$E(C/J=11)=0(22/22)= \$0.00$
12	$E(C/J=12)=0(14/14)= \$0.00$
17	$E(C/J=17)=0(2/2)= \$0.00$
19	No functional group 19 failures in CH-47 Fleet.
30	$E(C/J=30)=0(1/1)= \$0.00$

These expected values of median cost of a failure give us a way to rank the functional groups according to cost of failure which we feel is a measure of flight safety.

The rankings for the CH-47 Fleet would be:

<u>Rank</u>	<u>Functional Group</u>
1	Rotor and Transmission
2	Engine
3	Landing Gear
4	Airframe
5	Instruments
6 and above	All other functional groups had \$0.00 Expected Value of Median Cost of Failure except for 10 which could not be computed and 19 which had no failures in the CH-47 Fleet.

We used median cost instead of the mean cost for it is not as affected by outliers as the mean. Also, we preferred median over mode as it always exists and is a more stable measure of location.

As previously stated, however, data limitations, specifically lack of cost data and an inability to retrieve enough data for valid frequency distributions by specific part number, forced a curtailment of this task.

2c) Many of the design features contributing to pilot and maintenance errors leading to mishaps have been corrected thru EIR's and later generation aircraft i.e. the OH-58C, CH-47D, YAH-64 and UH-60A.

Many pilot errors through design features are due to a trade-off in design to save money or weight. Three good examples of this are first, the pilot seats in the OH-58 are not adjustable vertically leading to one fixed setting that must be used by pilots of all sizes which leads to fatigue on long missions. Secondly, the fixed landing light on the same aircraft causes glare under certain conditions; and thirdly, the windshield defroster will not clear the windshield on OH-58's and UH-1's under various weather conditions leading to poor pilot visibility.

Most maintenance errors caused by design features again are caused in many cases by the same kind of trade-offs, for instance:

- 1) Over or under lubed could be solved by using assemblies requiring no lube except at Depot Level.
- 2) Installed Improperly - Should be designed so this cannot happen.
- 3) Torque Incorrect - Use of a system so the assembly could not be safetied if torque is incorrect or

utilize the system of turning the bolt so many flats after resistance to turning is first noticed.

It is further recommended that design trade-offs, because of cost or weight that create reliability and maintainability problems, could be reduced through increased use of Value Analysis and Human Factors Studies as part of the Design package.

- 2d) Identification, ranking and cataloging of failure modes and hazardous conditions are shown in Appendix C. Major problems seem to fall under the following headings:

OH-58

<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>HIGHEST FREQUENCY/ FAILURE MODE</u>
No. 2 Bearing	59	22 Bearing Failure
Spur Gearshaft	35	20 Loose
No. 8 Bearing	17	11 Bearing Failure
Planetary Bearing Assy	13	7 Spalled
Power Turbine Seal	11	10 Carboned

All others less than 11 failures.

UH-1

<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>HIGHEST FREQUENCY/ FAILURE MODE</u>
Power Shaft Support Bearing	24	17 Bearing Failure
No. 4 Bearing	19	9 Bearing Failure
Carbon Seal	17	10 Leaking
Bevel Gear	15	5 Improper Lubrication
Bevel Gear	10	6 Scuffed
Compressor Rotor	15	5 F.O.D.
Compressor Assy	8	3 F.O.D.
Bellows, P-1	13	9 Manufacturer Defect
Bellows, Main	6	2 Leaking
Bearing, Housing	11	8 Worn Excessively
Compressor Blade	11	4 Fatigue Cracks
Engine T53 L13B	10	2 Not determined 2 Rusty

All others less than 10 failures.

AH-1

Engine	11	2 No discrepancy found 2 Eroded
Servo Cylinder	8	4 Improper Maintenance
No. 4 Ball Bearing	8	5 Excess Vibration

All others less than 8 failures.

CH-47

<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>HIGHEST FREQUENCY/ FAILURE MODE</u>
Ball Bearing	12	4 Incorrect Torque
Planet Bearing Retainer	11	4 Worn Excessively
Nut, Plain Round	9	5 Incorrect Torque
Power Shaft Support Bearing	9	4 Grooved
Bearing Assy, Planet Gear	6	6 Bearing Failure

All others less than 6 failures.

OH-6

Gasket, Lube Pump	4	3 Leaks Oil
Spur Gearshaft	3	3 Loose

All others less than 3 failures.

CH-54

Insufficient Data.

NOTE: Each Nomenclature may have more than one part number - See DIR Listing.

As can be seen, even though maintenance induced failures were supposed to have been culled from data base; when failure code was evaluated, many of the hazardous conditions could be traced directly to maintenance procedures.

2e) In determining conformance of the parts to quality and disclosing any major quality problems, we have noted fifty quality defects as outlined below. This is from DIR Data for all fleets. Two very major quality problems are first, the Bellows Assy in the UH-1 Fuel Control; and secondly, ball and roller bearings. We have also noted eighty-nine maintenance defects for all fleets.

UH-1

QUALITY

<u>FAILURE MODE FREQUENCY</u>	<u>CODE</u>	<u>FAILURE MODE</u>
15	225	Manufacturer Defect (9-Bellows Assy)
13	239	Improper Fit
4	237	Improper Assy. Mfg.
2	497	Design Deficiency
2	438	Poor Workmanship
2	247	Improperly Machined
<u>1</u>	054	Faulty part-Material
39		

MAINTENANCE

8	410	Lack of Lube
7	340	Installed Improperly
6	127	Improper Adjustment

UH-1

MAINTENANCE(Cont.)

<u>FAILURE MODE FREQUENCY</u>	<u>CODE</u>	<u>FAILURE MODE</u>
5	093	Missing Part
4	950	Wrong Part
4	167	Torque Incorrect
3	246	Improper Maintenance
2	238	Improper Assy
1	252	Lubrication Omitted
1	508	Safety Wire Incorrect
1	979	Maintenance Error
<u>1</u>	337	Improperly Serviced
43		

CH-47

QUALITY

1	225	Manufacturer Defect
<u>3</u>	239	Improper Fit
4		

MAINTENANCE

10	167	Torque Incorrect
4	340	Installed Improperly
2	127	Improper Adjustment
1	533	Parts Omitted
<u>1</u>	979	Maintenance Error
18		

OH-58

QUALITY

<u>FAILURE MODE FREQUENCY</u>	<u>CODE</u>	<u>FAILURE MODE</u>
1	225	Manufacturer Defect
1	239	Improper Fit
<u>1</u>	259	Oversize
3		

MAINTENANCE

5	373	Stripped Threads
1	340	Installed Improperly
1	410	Lack of Lube
<u>1</u>	637	Improper Thickness
8		

OH-6

QUALITY

1	263	Door Bonding
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MAINTENANCE

1	127	Improper Adjustment
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AH-1

QUALITY

2	497	Design Deficiency
<u>1</u>	225	Manufacturer Defect
3		

AH-1

MAINTENANCE

<u>FAILURE MODE FREQUENCY</u>	<u>CODE</u>	<u>FAILURE MODE</u>
13	246	Improper Maintenance
2	410	Lack of Lube
1	979	Maintenance Error
1	500	Overlube
1	167	Incorrect Torque
<u>1</u>	340	Installed Improperly
19		

2f) In identifying areas which require technological advances to improve reliability and maintainability, quality control of bearings has been a problem not only in Army Aviation; and is indeed one that requires new technology.

The Rotor Systems continue to be a problem; however, the new systems used on the Blackhawk and latest model of the CH-47 should eliminate most of the problems.

The next generation of engines with improvement in the fuel control should help especially when the Army adopts the Digital Electronic Fuel Control which should incorporate diagnostic capabilities.

Appendices A and B do identify in more specific detail those areas, (either because of the nature of the failure and/or the resultant type of mishap), that could be considered candidates for further study.

This completes the evaluation of the tasks and results assigned under the Statement of Work of Delivery Order DAAJ01-77-A-0012-0006 (P6D) under BOA DAAJ01-77-A-0012 (P6D).

APPENDIX A

UH-1

DISASSEMBLY INSPECTION REPORTS DATA
 NUMERICAL ORDER OF FAILURES

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
130021401	Seal, Carbon	17	10-381, 2-020, 2-910, 1-070, 1-135, 1-117
130033601	Seal, Carbon	4	1-020, 1-239, 1-582, 1-283
451858H60	Seal, Input	3	2-581, 1-340
130033602D	Seal, Carbon	2	1-020, 1-239
130023101	Seal, Plain Encased	2	020
1300214	Seal, Carbon	2	381
130033601G	Seal, Carbon	1	020
130033602	Seal, Carbon	1	099
130017402	Seal, No. 2 Bearing	1	020
1300173	Seal, Forward	1	730
130017401	Seal	1	371
410082H19	Seal, Plain Encased	1	020
2040111315	Seal, Grip	1	381
450171J60	Seal, Shaft Output	1	306
130023201	Seal, Starter Drive	1	473
112000014	Seal, 2nd Stage Air	1	040
MS29513010	Seal, O-Ring	1	750
2040404009	Gear, Bevel	15	5-095, 4-492, 2-795, 2-509, 1-020, 1-727
2040404017	Gear, Bevel	10	6-492, 2-020, 1-795, 1-335

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
89970	Gear, Fuel Pump Drive	4	2-020, 1-410, 1-660
2040407013	Gear, Bevel, Input	3	1-002, 1-647, 1-859
2040405009	Gear, Bevel	2	859
107006203	Gear, Spur, Tach	2	1-340, 1-853
103019206	Gear, Sun	2	660
87240	Gear, Pump Drive	1	660
103035008	Gear Assembly, Reduction	1	510
110021201	Gear, Accessory Drive	1	853
20404050010	Gear, Output	1	492
2040403555	Gear, Bevel	1	030
103019204	Gear, Sun	1	910
103019203H	Gear, Sun	1	910
107006404	Gear, Tach Drive	1	910
110072023	Rotor Assembly, Compressor	15	5-301, 4-304, 2-870, 1-020, 1-070, 1-148, 1-926
110072040	Compressor Assembly	8	3-301, 1-304, 1-070, 1-148, 1-574, 1-513
100072040	Rotor, Compressor	4	3-870, 1-304
110056003	Compressor Assembly	2	1-304, 1-070
110072018	Compressor Assembly	2	304
10072023	Rotor Assembly, Compressor	1	301
110072045	Rotor, Compressor	1	301
110036106023	Rotor, Compressor	1	870
106027005	Compressor, 1st Stage	1	301
74836	Bellows Assembly, P-1	13	9-225, 3-706, 1-381

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
74865	Bellows Assembly, Main	6	2-381, 2-027, 1-225, 1-030
74685	Bellows, Main	1	312
107010301	Housing, Bearing	11	8-020, 2-239, 1-214
106019001	Housing, Bearing, Compressor	3	2-859, 1-002
2050402315	Housing Assembly	1	910
111059002	Housing, Bearing	1	520
114059004	Housing, Bearing	1	570
110036106	Blade, Compressor, 1st Stage	11	4-853, 2-301, 2-148, 1-070, 1-425, 1-520
110038504	Blade, Compressor, 5th Stage	2	1-070, 1-920
1100562	Blades	2	303
119000703	Blade, Rotor, Power Turbine	1	853
119000802	Blade, 1st Stage	1	154
110028609	Blade	1	148
100006022	Blades	1	303
114027303	Blade, Turbine	1	521
110038501	Blade, Compressor	1	690
100006010	Engine	10	2-570, 2-920, 1-301, 1-002, 1-870, 1-148, 1-246, 1-790
LE11709	Engine	1	372
100008013	Engine	1	372
130008201B	Bearing, Roller, Power Shaft Support	9	5-710, 2-013, 1-497, 1-670
130008201	Bearing, Roller, Power Shaft Support	6	4-710, 1-509, 1-170
130001602	Bearing, Roller, Power Shaft Support	4	710

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
130008201A	Bearing, Roller, Power Shaft Support	2	1-710, 1-607
130008701E	Bearing, Roller, Power Shaft Support	2	710
2040401431	Bearing, Duplex Ball	8	2-020, 2-520, 1-509, 1-170, 1-023, 1-675
130017604	Bearing, No. 2	7	2-020, 2-239, 1-710, 1-214, 1-237
1300176	Bearing, No. 2	3	170
1300015	Bearing, No. 4	6	3-710, 2-182, 1-509
130001504	Bearing, No. 4	6	2-013, 1-710, 1-070, 1-014, 1-032
130011904	Bearing, No. 4	5	020
130001504N	Bearing, No. 4	3	2-853, 1-710
130001501	Bearing, No. 4	2	710
130001502	Bearing, No. 4	1	710
13000154N	Bearing, No. 4	1	710
2040404241	Bearing, Ball, Annular	5	3-863, 1-710, 1-340
2040406231	Bearing, T/R Drive Shaft	3	1-095, 1-570, 1-468
2040111171	Bearing, Duplex Ball	2	1-020, 1-410
2040401351	Bearing, Lower Planet Support	2	1-237, 1-372
130000602	Bearing, Pinion, Accessory Drive	2	240
19025301	Bearing	2	020
2040403101	Bearing, Roller	2	1-020, 1-410
130000301	Bearing, Tach Drive	2	1-710, 1-093
130001504L	Bearing, No. 1	2	509
2040107049	Bearing, Ball, T/R Pitch	1	710

<u>PART. #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
2050401081	Bearing, Ball, Annular	1	710
31100883399	Bearing, Ball, Annular	1	710
2050402491	Bearing, Roller, Journal	1	710
130017603	Bearing	1	239
130008218	Bearing, Roller	1	520
2040761681	Bearing, Support	1	239
130032902	Bearing, Shaft	1	509
2040403463	Bearing Set	1	509
2040404211	Bearing, Ball, Annular	1	374
5400114141	Bearing	1	238
MM210VM2	Bearing	1	710
148753	Bearing, Yoke	1	123
2040401369	Bearing, Mast	1	509
2040107651	Nut Assembly Control	8	5-020, 2-030, 1-247
2040403091	Nut, Plain Round	1	979
110009013	Housing, Impeller	7	2-920, 1-170, 1-926, 1-263, 1-240, 1-135
110121002	Housing, Compressor	1	167
1100064006	Housing, Compressor	1	175
110007809	Impeller	7	3-002, 2-225, 1-519, 1-853
114018902	Impeller	2	853
110007803	Impeller, Compressor	2	1-497, 1-853
114019102	Impeller, Rear	1	020
21794	Impeller, Turbine	1	950
74964	Connector, P-1 Valve	6	4-002, 1-070, 1-356

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
74965	Connector, P-1	2	1-853, 1-054
130026801	Pin, Spring, Blade Retaining	6	3-003, 1-154, 1-503, 1-585
20404001213	90° Gearbox	6	2-020, 1-070, 1-859, 1-095, 1-337
76237	Sleeve Assembly, Governor	5	3-020, 2-646
2040406045	Coupling, Drive Shaft	5	2-020, 2-410, 1-252
2040406875	Coupling, Main	5	1-154, 1-660, 1-093, 1-374, 1-346
2040406037	Coupling, Drive Shaft	4	2-410, 1-020, 1-841
X134276	Clutch	4	2-853, 2-242
X131720	Clutch	4	1-154, 1-503, 1-466, 1-853
2040112505	Blade, Main Rotor	4	2-190, 1-863, 1-263
20401170215	Blade, Tail Rotor	3	2-853, 1-263
20401200125	Blade, Main Rotor	1	420
5400110015	Blade, Main Rotor	1	846
2040107429	Control Tube, Tail Rotor	3	2-171, 1-020
110082006	Turbine, 2nd Stage	3	2-480, 1-246
114021011	Turbine, Power	2	001
110049008	Turbine Assembly	1	480
114027201	Turbine, 2nd Stage	1	853
2120760057	Servo, Hydraulic Flight Control	3	1-790, 1-006, 1-340
2050760381	Servo Cylinder	1	070
107005701	Cap, Bearing	3	2-105, 1-070
2050017211	Chain Assembly, Silent	2	1-070, 1-920
2050706757	Cover Assembly	2	1-070, 1-715

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
84200A5	Fuel Control	2	1-127, 1-561
84200A7	Fuel Control	2	1-127, 1-646
84200A6	Fuel Control	1	117
81800A1	Fuel Control	1	127
117016001	Fuel Control	1	853
111052021	Nozzle, Gas Producer	2	1-070, 1-225
119000009	Nozzle, 1st Stage Turbine	1	135
19000009	Nozzle & Cylinder Assembly	1	190
103046001	Nozzle, Oil	1	180
108027004	Shaft, Gear	2	020
110080004	Shaft, Power	2	1-020, 1-438
110050101	Shaft, Compressor	1	438
110050202	Bolts, Impeller	2	1-070, 1-003
MS906008	Bolt	2	1-853, 1-099
114021704	Bolt, Power Shaft	2	730
2040404051	Bolt, Retaining, Gear	2	1-730, 1-508
MS970508	Bolt	2	1-070, 1-167
2040013471	Bolt, Shouldered	1	002
20400113441	Bolt, Shouldered	1	002
NAS464539	Bolt, Shear, Swashplate Support	1	167
NAS130530D	Bolt, Machine	1	238
SKCP218515	Bolt	1	009
108003101	Race, Bearing, Outer	2	239
114066002	Race, Bearing, Outer	2	239

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
2040401917	Race, Bearing, Outer	2	259
2040404073	Race, Bearing, Inner	1	640
83869	Flyweight Assembly, N-1 Governor	2	646
75993	Flyweight Assembly, N-1 Governor	1	570
107022003	Carrier Assembly, Accessory Drive	2	214
A35AAU8AA	Altimeter	2	428
2120400541C	Case Assembly, Transmission	1	167
2040403549	Case, Transmission	1	853
204040003237	42° Gearbox	1	126
2040403101	42° Gearbox	1	308
—	42° Gearbox	1	170
2040400165	Transmission	1	170
2040400161	Transmission	1	185
2040405081	Indicator Disk, Oil	1	950
75208	Fitting, Fuel	1	581
79247	Solenoid	1	242
2040121125	Strap, Tension Torsion	1	306
2040121033	Fitting, Tension Torsion Strap	1	247
20506025427	Filter Assembly	1	232
75092	Sleeve, Bearing	1	244
SYCL520	Tube Assembly	1	422
78958E	Diaphragm, Valve, Regulator	1	576

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
106012103	Cylinder, Torquemeter	1	701
20401210119	Main Rotor Hub	1	915
2040111215	Grip Assembly, Main Rotor	1	225
20401172819	Grip Assembly, Tail Rotor	1	154
111018106	Plate, Bearing Retaining	1	020
2040111251	Plate Assembly	1	910
75503	Housing Assembly	1	070
2050402567	Housing, Main Input	1	190
41000286	Housing Assembly, Hydraulic	1	190
114019003	Housing, Seal	1	926
114020201	Housing, No. 3 Bearing Seal	1	259
110028901	Shim	1	246
2040401751	Shim, Laminated	1	947
MS29513014	Packing, O-Ring	1	381
SZ8088	Packing, Preformed	1	381
297006	Packing, Preformed	1	117
105886	Packing, Preformed	1	947
1300462	Packing	1	927
RR511	Ring, Retaining	1	070
110089003	Ring, Retaining	1	070
2040404273	Ring, Externally Threaded	1	170
1100146004	Ring, Oil, Forward	1	340
130035801	Ring, Lock	1	093
130035901	Ring, Retaining, Seal	1	093
2040114031	Ring Assembly, Swashplate	1	426

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
2040114501	Mast	1	070
2040403669	Mast Assembly	1	070
105886	Washer, Key	1	020
1300082	Cage, Bearing, Power Shaft	1	710
MS800I200A	Hose Assembly	1	381
10766	Hose Assembly	1	030
116016010	Manifold, Fuel	1	070
111010304	Manifold, Air Bleed	1	002
204011402	Trunnion, Swashplate	1	190
2040403051	Sleeve Assembly, Tail Rotor	1	190
75020	Valve Assembly, Foot	1	093
74963	Valve, P-1 Multiplier	1	070
75013	Valve, Press. Relief	1	371
93195	Screw, Connector, P-1	1	070
2040607657	Lever, Power Turbine Control	1	853
2040107473	Guard, Sprocket	1	920
2040107681	Sprocket Wheel	1	920
2040626851	Fuel Cell	1	225
114026801	Retainer	1	030
83567	Retainer	1	239
2120401841	Pump, Oil, Transmission	1	304
2120760101	Pump, Hydraulic	1	650
114019102	Pump, Paddle	1	574
76883	Yoke	1	030
20404020713	Quill Assembly, Tail Rotor	1	859

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
ALI0404000	Seats	1	154
86734	Vane, Inlet Guide	1	127
BL8305	Hoist Assembly	1	570
BL13800	Traction Sheave Assembly	1	769

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PARTS LACKING NOMENCLATURES

<u>PART #</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
1100383305	2	340
2040403315	2	210
77091	2	177
103018703	1	020
107014001	1	070
130033502	1	070
19001002	1	070
MS29513119	1	381
102001701	1	389
114047005	1	920
75175	1	920
106030003	1	127
83761	1	127
2040404261	1	214
119000703	1	706
110055301	1	480
NAS15956	1	237
700009F00Y324	1	237
107209	1	582
130017301	1	582
2120761181	1	105
110088001	1	900
110088009	1	900
20026018	1	517

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DISASSEMBLY INSPECTION REPORTS DATA

NUMERICAL ORDER OF FAILURES

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
100006010	Engine	11	2-502, 2-148, 1-180, 1-306, 1-979, 1-030, 1-722, 1-585, 1-870
20407600511	Servo Cylinder Assembly	8	4-264, 1-492, 1-870, 1-020, 1-135
20407605311	Servo Cylinder Assembly	2	246
130001504	Bearing, Ball, Annular	4	2-506, 1-013, 1-690
130002	Bearing, Ball, Annular	3	690
130001504R	Bearing, Ball, Annular	2	1-870, 1-230
130001504L	Bearing, Ball, Annular	1	690
1300015	Bearing, Ball, Annular	1	002
130017604	Bearing, Roller, Cylindrical	3	2-410, 1-020
130011903E	Bearing, No. 4	3	1-020, 1-190, 1-710
130008201B	Bearing, Roller, Cylindrical	2	1-497, 1-509
13001305G	Bearing	1	710
30E2061A	Bearing, Ball	1	099
2040403011	Bearing	1	935
2040403101	Bearing	1	420
20404001431	Bearing, Duplex Ball	1	520
130021401	Seal, Plain Encased	4	3-117, 1-381
1300336	Seal, Plain Encased	3	2-910, 1-559
1300214	Seal, Plain Encased	3	2-112, 1-381
5400111591	Seal	1	117

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
M28775027	Seal	1	440
20905000245	Cross Tube Assembly	3	2-730, 1-002
20905000241	Cross Tube Assembly	2	730
2040404017	Gear, Bevel	3	2-099, 1-492
116042202	Gear, Bevel	1	240
2050017481	Chain Assembly, Silent	3	2-003, 1-480
2040017393	Chain Assembly, Silent	1	190
114019102	Impeller, Rear 2nd Stage	3	2-935, 1-574
110007803	Impeller, Compressor	1	070
110007807	Impeller, Compressor	1	070
74836	Bellows Assembly, Multiplier	3	2-515, 1-575
130026801	Pin, Spring	3	1-003, 1-870, 1-730
110072040	Rotor Assembly, Compressor	2	1-099, 1-870
114055002	Rotor, Turbine	1	500
110088009	Rotor, Turbine, 1st Stage	1	099
110088001	Rotor, Turbine, 1st Stage	1	303
2040760061	Pump, Axial Piston	2	246
94965	Valve Assembly, P-1	2	790
MS178254	Nuts, Self Locking	2	660
100328	Sleeve, Servo Cylinder	2	1-020, 1-870
H585051	Latch Assembly, Infrared	2	853
42579	Spring, Helical	2	246
2133	Altimeter, Pressure	2	1-070, 1-712
5070760021	Servo, Lateral	2	246
5700740751	Servo Actuator	1	646

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
93195	Screw, Adjusting	1	002
81800A1	Governor, Overspeed	1	020
20404000333	Quill Assembly	1	021
2090401511	Gearshaft, Bevel	1	214
2090404021	Shaft, Shouldered	1	420
110080004	Shaft, Turbine	1	240
108025016	Gearbox Assembly	1	246
2040117111	Crosshead, T/R	1	030
2090740521	Control Unit Assembly	1	030
AB6H12A	Bolt	1	070
5400110233	Stud, Continuous Thread	1	225
AN126420	Stud, T/R Gearbox	1	167
102015401	Ring, Seal	1	070
RG17350	Ring, 'O'	1	405
130035801	Ring, Retaining	1	340
110036105	Blade Set, Compressor	1	070
5400112501	Blade Assembly, Main Rotor	1	853
2040401917	Race, Outer	1	509
2040406045	Coupling	1	020
2040406039	Coupling	1	190
84200A6	Fuel Control	1	497
84200A5	Fuel Control	1	177
2120107251	Sprocket, Pitch Change	1	853
5400111011	Hub Assembly, Main Rotor	1	853

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
11018106	Plate, Retaining, Bearing	1	730
106022003	Housing Assembly, Inlet	1	660
106019001	Housing, Compressor	1	853
110126002	Compressor	1	148

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PARTS LACKING NOMENCLATURES

<u>PART #</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
100006023	1	099
20904040011	1	513
20403082810	1	154
2040308289	1	204
27916	1	853

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DISASSEMBLY INSPECTION REPORTS DATA

NUMERICAL ORDER OF FAILURES

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
6840139	Gasket, Pump, Lubricating	4	3-283, 1-374
6855872	Gearshaft, Spur	3	730
6852088	Gearshaft, Spur	1	910
369A5195	Bearing, Roller, Tapered	3	2-509, 1-609
2520501	Bearing, Ball, Annular	2	710
369A5198	Bearing, Roller, Cylindrical	2	509
369A5199	Bearing, Roller, Cylindrical	2	935
369A5138	Bearing, Ball	2	1-509, 1-570
2526146	Bearing Assembly, Fuel	2	859
369A5433	Bearing, Ball, Annular	1	509
369A5423	Bearing, Ball, Annular	1	020
6876009	Bearing, Ball, Annular	1	290
6871606A	Bearing, Ball	1	900
6852369	Bearing, Ball	1	710
ALE4852369	Bearing, Ball	1	710
6859046E	Bearing, Roller	1	710
369A17109	Blade, Rotary, Rudder	2	1-070, 1-263
6856755	Blade, Compressor	1	853
369A7306	Tube Assembly, Torque	2	070
6823169	Nut, Special	2	105
369A5401	Housing Assembly	2	170

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
6855102	Support Assembly, Turbine	2	190
6870460	Valve Assembly, Bleed	2	1-705, 1-127
25244373	Fuel Control	2	178
133454	Filter Element, Fuel	2	920
6852090H	Gear, Spur	1	859
369A5110	Gear, Bevel, Output	1	170
369A5113A	Gear, Spur	1	570
68541481	Gear Cluster, Helical	1	020
6852171	Turbine Rotor	1	317
6852171AB	Turbine Rotor	1	480
6871430	Compressor Rotor, Axial	1	859
6871429	Compressor Rotor, 1st Stage	1	301
369A5158	Shaft, Transmission	1	374
6874201	Engine, Aircraft, Gas Turbine	1	920
369A5100607	Transmission, Assembly, Main	1	170
6851928	Cover Assembly, Gearbox	1	170
6810362124	Screw, Machine	1	730
369A54293	Breather	1	660
6850734	Ring, Retaining	1	154
MS9388019	Packing, Preformed	1	116

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DISASSEMBLY INSPECTION REPORTS DATA
NUMERICAL ORDER OF FAILURES

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
6876008	Bearing, Ball, No. 2	48	20-710, 10-910, 7-509, 5-240, 2-859, 1-795, 1-099, 1-070, 1-190
2060400357	Bearing Assembly, Planetary	13	7-509, 2-570, 1-710, 1-240, 1-859, 1-910
6876012	Bearing, Ball, No. 8	12	8-710, 1-852, 1-374, 1-853, 1-123
6873915	Bearing, No. 1	9	5-710, 2-509, 1-410, 1-374
6879433	Bearing, Ball	6	4-020, 1-520, 1-935
6859429	Bearing, Ball, No. 2	5	2-070, 1-935, 1-099, 1-020
6859429C	Bearing, Ball, No. 2	2	935
6859429L	Bearing, Ball, No. 2	1	935
6859429D	Bearing, Ball, No. 2	1	710
6859429B	Bearing, Ball, No. 2	1	547
6876009	Bearing, Ball, No. 4	5	3-509, 1-710, 1-520
6872369	Bearing, Ball, No. 8	4	3-710, 1-374
6824702	Bearing, Ball	3	2-710, 1-099
6871604	Bearing, Ball, No. 4	3	2-509, 1-710
2520501	Bearing, Ball	2	1-710, 1-509
2060401311	Bearing	2	1-710, 1-935
6876005	Bearing, Ball	2	1-509, 1-374
2060401301	Bearing	2	1-509, 1-306

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
2060400331	Bearing, Roller	2	1-509, 1-670
6850714	Bearing, No. 4	2	520
6876010	Bearing, Ball, No. 2	1	710
6859430C	Bearing, Ball, No. 5	1	710
2060404101	Bearing, Duplex	1	509
6859436	Bearing, Ball	1	509
6859436E	Bearing, Ball	1	240
SBS24ATC46	Bearing	1	340
20604000371	Bearing	1	030
2060117311	Bearing, Roller, Pitch Change	1	099
6871606	Bearing, Ball, No. 8	1	099
460547	Bearing, Main	1	123
6859434	Bearing, Roller	1	306
6850714G	Bearing, No. 3	1	520
2060400323	Bearing	1	570
2060404081	Bearing, Duplex	1	863
68594330	Bearing, Ball	1	935
6855872	Gearshaft, Spur	26	18-730, 2-120, 1-020, 1-130, 1-690, 1-099, 1-170, 1-346
6855872P	Gearshaft, Spur	6	3-120, 2-730, 1-374
6855872N	Gearshaft, Spur	3	2-570, 1-020
6852088L	Gearshaft, Spur	1	701
6855871	Gearshaft, Spur	1	935
2060402223	Gearshaft	1	580
2060404077	Gearshaft, Output	1	214

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
6854149	Gear Cluster, Spur	3	1-346, 1-701, 1-859
6871218	Gear Cluster, Helical	1	859
6845148	Gear, Output Cluster	1	185
2060401223	Gear, Spur, Planetary Sun	1	509
2060401171	Gear, Spur	1	190
6845867	Gear, Spur, Oil Pump Idler	1	379
2060404053	Gear, Input Pinion	1	509
20604004061	Gear, Bevel	1	492
2060401211	Gear, Spiral, Bevel	1	910
6842058	Seal, Power Turbine	11	10-112, 1-135
6870791	Seal, Oil Bellows	8	2-562, 1-117, 1-283, 1-112, 1-135, 1-374, 1-381
6871662	Seal Assembly, Compressor	5	2-020, 2-381, 1-910
450236H19	Seal, Output	2	020
6842054	Seal, Power Turbine	1	112
6847145	Seal, Bellows Oil	1	381
410236H19	Seal	1	582
6875490	Case Assembly	9	4-190, 1-148, 1-174, 1-230, 1-780, 1-002
6876266	Compressor Assembly, Axial	6	2-099, 2-574, 1-230, 1-070
6871430	Rotor Assembly, Compressor	4	2-302, 1-374, 1-099
6871429	Rotor, Compressor, 1st Stage	2	1-853, 1-070
6871444	Rotor, Compressor, 4th Stage	1	070
6873965	Rotor, Compressor, 5th & 6th Stage	1	070
6852721	Rotor Assembly, Power Turbine	1	135

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
6852171	Rotor Assembly, Turbine	1	900
6851116	Rotor, Compressor, Contrifugal	1	170
6857912E	Rotor, Turbine	1	374
6871432	Rotor, Compressor, 2nd & 3rd Stage	1	853
6871445	Rotor, Compressor, 5th & 6th Stage	1	853
6843393	Rotor, Turbine	1	853
6844494	Rotor, Compressor, 4th Stage	1	853
6875488	Diffuser, Rear, Compressor	5	3-020, 1-070, 1-374
6844694	Diffuser, Rear	1	020
6851929	Housing Assembly, Accessory	5	4-373, 1-170
20604015021	Housing Assembly, Mech. Drive	1	170
6851928	Housing & Cover Assembly, Gearbox	1	381
6876484	Splined Adapter	4	3-020, 1-154
6872069	Spline, Turbine Shaft	2	1-020, 1-916
2060107505	Blade, Tail Rotor	4	1-503, 1-301, 1-675, 1-154
2060112503	Blade, Main Rotor	3	1-070, 1-170, 1-225
6855102	Support Assembly, Turbine	4	2-020, 1-218, 1-190
6875778	Support Assembly, Power Turbine	2	1-673, 1-840
6874201	Engine	3	1-214, 1-920, 1-480
6876264	Engine	1	910
2060401201	Transmission Assembly	3	509
2060400035	Transmission Assembly	3	1-304, 1-570, 1-910

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
6871164	Cover Assembly, Oil Sump	3	2-020, 1-070
2525866	Cover Assembly, Drive Body	2	1-180, 1-230
6873599	Valve Assembly	3	1-790, 1-561, 1-239
343452	Valve Assembly, Fuel By-Pass	1	935
6846669	Valve, Check	1	381
6859956	Tube Assembly, Metal	3	2-070, 1-853
6850900	Tube Assembly, Metal	1	859
6854139	Tube Assembly, Metal	1	190
20600102423	Tube Assembly	1	190
2520659	Spring, Helical	3	2-790, 1-127
6871165	Scroll Assembly, Diffuser	2	1-020, 1-373
2525480	Shaft, Eccentric	2	1-170, 1-790
2523736	Shaft, Throttle	1	607
2526008	Shaft, Fuel Control	1	780
67543	Piston, Rate	2	240
67545	Piston, Stroking	1	135
2060404201	Sleeve Spacer	2	1-214, 1-020
6849140	Sleeve Bushing	1	730
2523549	Sleeve, Fuel Transfer	1	030
6848165	Accumulator	2	190
68549381	Insert, Thread	2	1-381, 1-730
6854938	Insert	1	730
2040405055	Plug, Oil Filter Cap	2	1-020, 1-780
6854607	Bellows Assembly	1	259
2527569	Bellows Assembly	1	790

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
2537569	Bellows Assembly, Fuel Control	1	790
6858119	Nozzle Assembly, 2nd Stage	1	701
6871482	Nozzle, Turbine	1	701
2060400861	Shim	1	637
553239	Shim	1	030
68590461	Cage, Bearing Retainer	1	710
2520491	Drive Assembly, Body	1	710
2060403151	Collar	1	020
67568	Cylinder Barrel	1	020
6808397	Ring, Spacer	1	020
6848661	Oil Slinger, Turbine	1	020
6840139	Gasket, Lubricating Pump	1	111
6852069	Gasket	1	947
2060404009	Gearbox Assembly, Tail Rotor	1	308
2060315543	Spindle	1	717
NAS6173	Packing, Preformed	1	582
2520580	Screw Spring Assembly	1	070
6810342124	Screw, Machine	1	730
2526125	Lever Assembly, Cam Follower	1	135
2523172	Pin, Headless Straight	1	381
343698	Pin, Headless Straight	1	170
AN1746A	Bolt, Machine	1	154
2060103423	Pitch Connector Assembly	1	154
2525837	Restrictor, Air Flow	1	180

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
252358668	Restrictor	1	180
6829641	Nut, Plain Round	1	730
6846278	Nut, Power Coupling	1	170

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PARTS LACKING NOMENCLATURES

<u>PART #</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
25244381	1	180
25233549	1	230
6848165	1	780
68520882	1	910
6850714	1	509

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DISASSEMBLY INSPECTION REPORTS DATA

NUMERICAL ORDER OF FAILURES

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
230002801	Bearing, Ball, Annular	12	1-020, 2-030, 4-167, 3-235, 2-935
206135001	Bearing, Power Shaft Support	9	1-030, 2-214, 4-290, 1-340, 1-935
114D2811	Bearing Assembly, Planet Gear	6	710
230001102	Bearing, Ball, Annular	5	1-520, 4-710
230000102	Bearing, Ball, No. 1	3	1-020, 2-170
114S5711	Bearing, Roller, Transmission	1	509
114DS5412	Bearing, Ball, Annular	2	710
114DS5454	Bearing, Roller, Cylindrical	2	735
230001104	Bearing, Ball, Annular	2	710
230003401	Bearing, Roller, Cylindrical	2	1-170, 1-509
114DS2531	Bearing, Roller	1	290
114DS6531	Bearing, Roller	1	501
1300003	Bearing	1	509
130000301	Bearing	1	509
13000402D	Bearing, Ball	1	710
114DS3401	Bearing, No. 6 Drive Shaft	1	710
114D5424	Bearing, Roller	1	859
230003101	Bearing, Ball, Annular	1	509
114DS6651	Bearing, Roller	1	710
3600606	Bearing, Ball	1	710

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
BRT6	Bearing	1	710
114D21841	Retainer, Planet Bearing	11	4-020, 1-030, 3-070, 2-910, 1-916
114D21191	Retainer, AFT Transmission	1	214
114DS2841	Retainer, Planet Bearing	1	070
114D10791	Retainer, Pinion Gear	1	979
RRT525	Retainer Ring, Bearing	1	533
214010302	Nut, Plain, Round	9	1-105, 5-167, 3-730
208001801	Nut, Gear Retaining	2	730
114D11101	Nut, Retaining	1	730
AN32012	Nut, Castellated	1	225
200003022	Engine, T-55 L-7C	5	1-304, 1-533, 2-710, 1-900
230000802	Engine	2	710
200102009	Engine	3	1-661, 2-920
553232	Bellows, Temp. Sensing	4	3-032, 1-374
114L23292	Drag Link, Landing Gear	3	1-003, 2-190
214000031	Rotor Assembly, Turbine	3	374
216006002	Rotor Assembly, Torquemeter	2	710
210160003	Rotor, Compressor	1	301
210020038	Rotor Assembly, Compressor	1	304
214116006	Rotor, 3rd Stage	1	070
210160003	Rotor, Compressor	1	301
114DS6462	Clutch, Engine Transmission	3	2-123, 1-640
107DS2102	Clutch	1	020
X133646	Clutch, Sprag	1	640

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
210124204	Blade, Compressor, 1st Stage	2	070
114D52002	Transmission Assembly	2	170
114D62004	Transmission Assembly	1	715
114E50841	Stop, Cargo Hook	2	1-127, 1-099
114D21341	Plug, AFT Transmission	2	340
114D52443	Gear, Bevel	2	859
114D22541	Gear, Bevel	1	070
114D20911	Gear, Bevel, Pinion	1	099
114D60862	Gear, Mechanical, Transmission	1	509
114D21321	Gear, Spur, Hydraulic	1	660
207000502	Gear, Accessory	1	070
208001303D	Gear, Accessory Drive	2	509
208005401	Shim	2	020
214009306	Shim	1	070
210006501	Shim	1	070
544334	Shim	1	374
208010703	Cover, Accessory Drive Gear	2	070
208010803	Cover, Spur Gear Train	1	859
2915009368548	Manifold, Fuel	2	180
230017401	Seal Assembly, Shaft Bearing	2	1-283, 1-381
230032301	Seal, Plain, Encased	1	582
230022502G	Nozzle, Fuel Injection	2	180
214001011	Nozzle Assembly, 2nd Turbine	1	070
114DS5752	Dampening Ring	2	1-290, 1-916
114D5613	Dampening Ring	1	030

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
208002022	Housing, Gearbox	2	1-170, 1-916
114D31025	Housing Assembly, Left Rotorshaft Bearing	1	030
114R05612	Housing, Pitch	1	190
207000701	Housing, Anti-Friction Bearing	1	030
210033003	Housing Assembly, Compressor	1	859
224287	Housing Assembly	1	290
589118	Housing Assembly	1	290
211007018	Housing, Combustor	1	190
21401042	Washer, Recessed	2	1-841, 1-020
114D30442	Washer, Flat	1	304
114DS1462	Pump, Lube, Oil Forward Transmission	1	007
114DS5474	Pump Assembly, Oil	1	308
114D51631	Bolt, Machine	1	070
NAS624H6	Bolt, Machine	1	070
114D52462	Shaft Assembly	1	123
114R2088	Shaft Assembly	1	577
284001	Shaft, Piston & Block Subassy	1	070
216003005	Gearshaft Assembly, Starter	1	509
114P20492	Connecting Link	1	154
114D20492	Connecting Link	1	853
114S18485	Bracket Assembly	1	154
114D3243	Adapter, Shaft, Transmission	1	190
114D51122	Lubrication	1	214

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
114PS4542	Valve, Check	1	396
2603002301	Valve, Solenoid	1	032
114R21971	Pin, Hollow Horizontal Hinge	1	501
997852	Pin, Grooved Headless	1	585
1904S302	Pin, Metal	1	710
114H6B04	Piston Assembly, Shock Blade	1	520
14832	Piston, Linear Actuating Cylinder	1	070
67711	Piston, Hydraulic Motor	1	070
114D11121	Race, Outer, Bearing	1	935
216028805	Diaphragm, Valve	1	023
210003903	Disk, 2nd Stage Compressor	1	027
202005411	Sleeve, Torquemeter	1	030
206125006	Guide Vane Assembly, Stator	1	030
206124002	Vane & Lever Assembly	1	154
206000103	Vane, Inlet Guide	1	190
210004016	Vane Assembly, Stator	1	304
215001011	Diffuser Assembly, Exhaust	1	170
213111018	Liner Assembly, Combustion	1	190
208042001	Filter Assembly, Oil	1	340
02W241148	Filter Assembly, Oil	1	308
230017601	Switch, Sensitive	1	127
230035301	Harness Assembly	1	196
NAS1593026	Packing, Preformed	1	030
STD3019E67	Packing, Preformed	1	116

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
GA5500	Gerotor, Outer	1	304
219130	Impeller, Axial	1	070
573042	Screw & Plate Assembly	1	336
6955210	Wire, Retaining	1	710
9543414	Wheel Subassy	1	859

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PARTS LACKING NOMENCLATURES

<u>PART #</u>	<u>TOTAL FAILURES</u>	<u>FREQUENCY/FAIL CODE</u>
114D600120	1	640
114D21804	1	910
214001010	1	920
7392226	1	127
68520882	1	167
271671	1	301
613063049	1	920
613063047	1	920

APPENDIX B

UH-1

CRASH FACTS DATA

NUMERICAL ORDER OF FAILURES

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
MS244981	Battery	383	6
BP433A	Battery	3	6
BB433AA	Battery	1	6
BB600AA	Battery	1	6
BB433A1A	Battery	1	6
MS244081	Battery	1	6
34AC20	Battery	1	6
MS24498	Battery	1	6
273073	Battery	1	6
100006010	Engine	356	1-7, 279-6, 60-5, 5-4, 1-3, 1-2, 9-1
100008006	Engine	3	2-6, 1-5
100008013	Engine	3	6
100006008	Engine	1	5
100008002	Engine	1	6
—	Engine	1	6
2040760571	Switch, Pressure	253	6
2040605413	Switch, Pressure	16	6
88617	Switch, Pressure	10	6
100316	Switch, Pressure	7	6
2040600571	Switch, Pressure	3	6
2040616101	Switch, Pressure	3	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
7120063	Switch, Pressure	2	6
2040403763	Switch, Pressure	1	6
204070571	Switch, Pressure	1	6
204070551	Switch, Pressure	1	6
2040600081	Switch, Pressure	1	6
2040760551	Valve, Irreversible	129	128-6, 1-5
425503	Valve, Irreversible	5	6
425502	Valve, Irreversible	4	6
42550	Valve, Irreversible	3	6
2040400551	Valve, Irreversible	1	6
2040760571	Valve, Irreversible	1	6
425501	Valve, Irreversible	1	6
20404001213	Gearbox, 90°	95	6
124112230	Switch	88	6
2040600081	Switch	55	6
204076571	Switch	35	6
2040403763	Switch	30	6
2050616335	Switch	10	9-6, 1-1
7120063	Switch	8	6
2040605413	Switch	5	6
2050606133	Switch	4	6
17120063	Switch	3	6
MS2510222	Switch	3	6
139243	Switch	3	6
910022	Switch	3	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
2040625423	Switch	2	6
4210128	Switch	2	6
ITL1443G	Switch	2	6
MS250893C	Switch	2	6
C100E239	Switch	2	5
3440130A221	Switch	2	6
2040606545	Switch	2	6
6607P87	Switch	1	6
2040709079	Switch	1	6
MS242421	Switch	1	6
MS2510521	Switch	1	6
MS2466023G	Switch	1	5
8190017	Switch	1	6
96025	Switch	1	6
2050606173	Switch	1	6
124112230	Switch	1	6
1241112236	Switch	1	6
2050606131	Switch	1	6
13AT1T	Switch	1	6
H20078	Switch	1	6
MS3505823	Switch	1	6
2040606541	Switch	1	6
MS2465822G	Switch	1	6
100316	Switch	1	6
13AT66	Switch	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
42D128	Switch	1	6
TRU66A	Switch	1	6
21230	Switch Trigger	1	6
MS2452423	Switch, Toggle	1	6
2040600081	Switch, Pressure	1	6
84200A7	Fuel Control	87	68-6, 17-5, 1-4, 1-2
84200A6	Fuel Control	77	54-6, 22-5, 1-1
84200A5	Fuel Control	3	1-6, 1-5, 1-2
81700C5	Fuel Control	3	1-6, 1-5, 1-4
81706C6	Fuel Control	2	6
84200AT	Fuel Control	2	6
84200AS	Fuel Control	1	5
84200A3	Fuel Control	1	6
84200A1	Fuel Control	1	6
84200X2A7A	Fuel Control	1	6
81800A1	Governor	86	1-7, 69-6, 14-5, 1-2, 1-1
12AM16826	Governor	1	2
87000B7	Governor	1	6
682AM12678	Governor	1	6
22A55A	Generator	78	75-6, 3-5
22A554	Generator	42	6
MILG2661GEU7A	Generator	15	6
32005007	Generator	5	6
3200005	Generator	3	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
30B3737	Generator	3	6
TYPEGEU5A	Generator	3	6
20407602001	Generator	2	6
30E2016A	Generator	1	6
MILG26611	Generator	1	6
GEU7A	Generator	1	6
MILG2661GEUTA	Generator	1	6
30010000	Generator	1	6
23031004	Generator	1	6
23064001	Generator	1	6
1300243	Chip Detector	78	6
B752G	Chip Detector	63	6
B7674A	Chip Detector	50	6
B7669B	Chip Detector	1	6
B76748	Chip Detector	1	6
B7674A	Chip Detector	1	6
PDI25438	Indicator, Pressure	70	6
PDI25438A	Indicator, Pressure	50	6
PDI25438H	Indicator, Pressure	1	6
864263	Indicator, Pressure	4	6
864264	Indicator, Pressure	2	6
3440130A221	Transmitter, Pressure	67	6
TRU66A	Transmitter, Pressure	28	6
2050606075	Pump, Submerged	66	64-6, 1-5, 1-4

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
2040606063	Pump, Submerged	57	6
20506026063	Pump, Submerged	26	6
2050606063	Pump, Submerged	24	6
RG12240D	Pump, Submerged	23	6
2040606279	Pump, Submerged	17	6
RG12470	Pump, Submerged	11	6
164A168	Pump, Submerged	11	6
2050606065	Pump, Submerged	6	6
2040606075	Pump, Submerged	5	6
60351B	Pump, Submerged	3	6
2056616355	Pump, Submerged	1	6
60351E	Pump, Submerged	1	6
RG12240	Pump, Submerged	1	6
2040760551	Pump, Submerged	1	6
PV30448	Pump	28	6
1300212	Pump, Oil	7	6
204076065	Pump	3	6
PVB0442	Pump	3	6
GC1669	Pump	1	6
2120401841	Pump	1	6
2040760061	Pump	1	6
AA6531RA	Pump	1	6
87352	Pump	1	6
RR12580	Pump, Boost	1	6
164A166	Pump, Fuel	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
205401873	Gasket	64	63-6, 1-5
48416291	Gasket	15	6
116004702	Gasket	4	6
MS913501	Gasket	3	6
2040401873	Gasket	1	6
2050101873	Gasket	1	6
04051111	Gasket	1	6
116036203	Gasket	1	6
111007201	Gasket	1	6
2040112505	Blade Assembly, Main Rotor	57	54-6, 3-5
110036106	Blade, Compressor	12	5-6, 6-5, 1-2
110028609	Blade	3	6
110036105	Blade	3	6
20401170215	Blade Assembly	3	6
5400110015	Blade Assembly	2	6
110038305	Blade	2	5
110038505	Blade	2	1-6, 1-5
110028608	Blade	1	5
110055301	Blade	1	1
110038405	Blade	1	5
110038501	Blade	1	6
110056201	Blade	1	5
114027303	Blade	1	6
114027402	Blade	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
119000703	Blade	1	1
20401100115	Blade	1	6
2040760531	Servo Cylinder	55	6
2050760387	Servo Cylinder	43	6
166023	Servo Cylinder	21	6
2050760997	Servo Cylinder	12	6
2040760535	Servo Cylinder	7	6
2040760531	Servo Cylinder	6	6
20407600511	Servo Cylinder	2	6
2040760529	Servo Cylinder	1	6
SGT2207	Servo Cylinder	1	6
511589214	Servo Cylinder	1	6
2040760707	Servo Cylinder	1	6
2050760707	Servo Cylinder	1	6
166003	Servo Cylinder	1	6
166017	Servo Cylinder	1	6
2040760537	Servo Cylinder	1	6
22702851	Control Alarm	45	6
227285A	Control Alarm	4	6
22702805	Control Alarm	2	6
227028051	Control Alarm	1	6
2050762011	Tube Assembly	43	6
2050762131	Tube Assembly	12	6
2050762351	Tube Assembly	9	6
2050760331	Tube Assembly	4	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
2050762121	Tube Assembly	3	6
2040762011	Tube Assembly	2	6
2050761411	Tube Assembly	2	6
20406020177	Tube Assembly	2	6
2040764521	Tube Assembly	2	6
2050605751	Tube Assembly	1	6
2050605861	Tube Assembly	1	6
2050402031	Tube Assembly	1	6
2040407331	Tube Assembly	1	6
2050401431	Tube Assembly	1	6
205041591	Tube Assembly	1	6
2040764591	Tube Assembly	1	6
20407619187	Tube Assembly	1	6
2040762121	Tube Assembly	1	6
2040762131	Tube Assembly	1	6
2040764501	Tube Assembly	1	6
204076551	Tube Assembly	1	6
2040764881	Tube Assembly	1	6
2050761601	Tube Assembly	1	6
2050762021	Tube Assembly	1	6
2050762022	Tube Assembly	1	6
2050762041	Tube Assembly	1	6
2050762071	Tube Assembly	1	6
2050762581	Tube Assembly	1	6
2070762121	Tube Assembly	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
2050762591	Tube Assembly	1	6
2050762371	Tube Assembly	1	6
20407517323	Tube Assembly	1	6
MS21916D64	Tube Assembly	1	6
2040617127	Tube Assembly	1	6
2040763741	Tube Assembly	1	6
2050616631	Tube Assembly	1	6
2050762311	Tube Assembly	1	6
2040764061	Tube Assembly	1	6
20507513515	Tubing	1	6
15891F	Regulator, Voltage	32	6
E15972	Regulator, Voltage	6	6
MS1807112	Regulator, Voltage	1	6
41806	Connector	32	6
MS312EF1419P	Connector	11	6
74964	Connector, P-1 Valve	8	2-5, 4-2, 2-1
1021461475	Connector	7	6
30051R12S3S	Connector	6	6
MS3106R366P	Connector	5	6
MS3106R10SL3S	Connector	4	6
MS3406R12S3S	Connector	3	6
1300178	Connector	2	6
MS3108R2821P	Connector	2	6
2620PS	Connector	2	6
MS3108R1456S	Connector	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
MS3106R10S23S	Connector	1	6
MS3122E2039P	Connector	1	5
MS0512A	Connector	1	6
MS3400K16512	Connector	1	6
MS3406K8515	Connector	1	6
CS3100A12S51P	Connector	1	6
30051R12S3S	Connector	1	6
MS3108R105135	Connector	1	6
MS3108R105L45	Connector	1	6
MS3124E145S	Connector	1	6
AN31162	Connector	1	6
MS280343	Transmitter	32	6
MS280051	Transmitter	7	6
37520012	Transmitter	4	6
20506163317	Transmitter	3	6
21850A	Transmitter	3	6
3440130A221	Transmitter	2	6
41800041	Transmitter	2	6
TRU66A	Transmitter	2	6
PAB934	Transmitter	1	6
2040400161	Transmitter	1	6
MS280342	Transmitter	1	6
56B17	Transmitter	1	6
20506163313	Transmitter	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
2050606131	Transmitter	1	6
8518329	Thermostat	31	6
2050605121	Thermostat	31	6
294FS4G180	Sensing Element, Fire	31	6
294FS46180	Sensing Element, Fire	2	6
116004003	Sensing Element, Fire	1	6
440810045	Panel Assembly	30	6
8103351	Panel Assembly	23	6
20407570545	Panel Assembly	20	6
14110450045	Panel Assembly	11	6
440810029	Panel Assembly	10	6
80009919	Panel Assembly	7	6
20407570519	Panel Assembly	6	6
249100	Panel Assembly	5	6
20407510529	Panel Assembly	4	6
80009911	Panel Assembly	3	6
436910021	Panel Assembly	3	6
440810019	Panel Assembly	3	6
792100	Panel Assembly	2	6
14110450029	Panel Assembly	2	6
14110450019	Panel Assembly	2	6
8000991	Panel Assembly	2	6
436910021	Panel Assembly	1	6
2040406009	Hanger Assembly	24	21-6, 1-5, 2-4

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
2040406231	Hanger Assembly	4	6
20404000337	Gearbox, 42 degree	23	6
2040701551	Indicator	23	22-6, 1-1
157800	Indicator, EGT	19	6
PDI25438A	Indicator	17	6
MS280091	Indicator	12	6
8DJ67FBC1	Indicator	9	6
MIL125623TYPEMU1	Indicator, N-1	9	6
MS280101	Indicator	7	6
20407570517	Indicator, Fire	6	6
2050616337	Indicator, Fuel	6	6
41105CSA4E3	Indicator, Tach	4	6
217A100A	Indicator	3	6
864263	Indicator, Torque	2	6
DSF419	Indicator	2	6
158700	Indicator, Temp	2	6
MS173131	Indicator, Attitude	2	6
2040757053	Indicator	2	6
39352	Indicator	1	6
MS280243A	Indicator	1	6
146891SB1	Indicator	1	6
21750A	Indicator	1	6
MIL125623	Indicator, N-1	1	6
39300401409	Indicator, Fuel	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
2040701551	Indicator, Fuel	1	6
	Indicator, Pressure	1	6
S51	Indicator, Liquid	1	6
2050017211	Chain Assembly	19	9-6, 7-5, 2-4, 1-1
2040017393	Chain Assembly	8	6
2040017365	Chain Assembly	1	6
1560UH17521	Chain Assembly	1	6
412501000	Resistor	18	6
RER75F1R00R	Resistor	3	6
CM26654	Resistor	2	6
RE75G1R00	Resistor	1	6
75F1R00R	Resistor	1	6
2040755191	Resistor	1	6
CM814	Resistor, Variable	1	6
AN31552550	Resistor, Variable	1	6
AN31555025	Resistor	1	6
HN55342	Resistor, Thermo	1	6
26330053	Valve Assembly	18	6
2040403681	Valve Assembly	14	6
1300194	Valve	6	6
204076123	Valve	6	6
MS295306	Valve	5	6
475C62NWPS	Valve	5	6
2040765041	Valve	5	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
RB17365	Valve, Relief	5	6
MS288906	Valve, Check	5	6
205063911	Valve, Check	4	6
2040616891	Valve	4	6
2040760711	Valve, Relief	3	6
2050605373	Valve, Therman	3	6
116022002	Valve, Drain	3	6
BYLB9272	Valve	2	6
2040763433	Valve	2	6
A800	Valve	2	6
81516AP	Valve, Drain	2	6
465C62NSW	Valve, Drain	2	6
118019003	Valve Assembly, Flow	2	6
AV16B1667D	Valve, Gate	2	6
2040605501	Valve	1	6
116027005	Valve	1	6
103004008	Valve	1	6
1011025	Valve	1	6
2040764371	Valve	1	6
2840	Valve	1	6
2050626511	Valve	1	6
2040616891	Valve	1	6
1U1025	Valve	1	6
1V0125	Valve	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
2090761361	Valve, Lockout	1	6
2050636501	Valve, Shutoff	1	6
344526	Valve, Poppet	1	6
2040763433	Valve, Relief	1	6
475C62NWPS	Valve, Drain	1	6
2040764373	Valve, Check	1	6
MS295304	Valve, Drain	1	6
MS28893A4	Valve, Hyd. Relief	1	6
116022003	Valve, Drain	1	6
MS288904	Valve, Check	1	6
2040724751	Valve, Mixing	1	6
2050606123	Valve, Gate	1	5
2582053	Valve, De-Ice	1	6
118015001	Actuator Assembly	18	17-6, 1-4
117005008	Actuator Assembly	15	6
2040607621	Actuator Assembly, Linear	7	6
54026421	Actuator	4	3-6, 1-5
117005002	Actuator	3	6
SYLC919010	Actuator	3	6
65A1191	Actuator	1	6
118015001	Actuator	1	6
117005009	Actuator	1	6
117005010	Actuator	1	6
2040607611	Actuator, Linear	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
DL1B26M31	Actuator, Antenna	1	4
S642550153101	Actuator, Antenna	1	6
MS287789	Packing	17	6
MS287784	Packing	15	6
MS287785	Packing	10	6
MS29561237	Packing	5	6
MS2951210	Packing	4	6
MS28775011	Packing	4	6
NAS15956	Packing	4	1-2, 3-6
MS28775135	Packing	3	6
MS2913027	Packing	2	6
MS29513207	Packing	1	6
105886	Packing, Preformed	1	6
MS2951206	Packing, Preformed	1	6
100647	Packing, Preformed	1	6
MS2877810	Packing, Preformed	1	6
MS29513020	Packing	1	4
1300462	Packing	1	6
NAS6173	Packing	1	6
MS28775113	Packing	1	6
MS28775012	Packing	1	6
MS28775014	Packing	1	6
MS29561224	Packing	1	6
MS29561014	Packing	1	6
256265401	Packing	1	6
MS29561024	Packing	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
22A554	Brake Assembly	16	6
MP4983	Brake Assembly	8	6
2040013763	Brake Assembly, Magnetic	2	6
2040013763	Brake Assembly	1	6
R460M15	Brake Assembly	1	6
R460M153	Brake Assembly	1	6
	Hydraulic	15	6
205073881	Box, Warning	15	6
2050740011	Box, Warning	2	6
2050753881	Box, Warning	1	6
74865	Bellows	15	6-6, 6-5, 1-3, 1-2, 1-1
74836	Bellows	5	6
MS24171D1	Relay	15	14-6, 1-5
AN3025300	Relay	5	6
20507513711	Relay	4	6
MS2419D1	Relay	1	8
MS24166D1	Relay	1	6
2040604483	Turbine Fan	14	6
A201523	Turbine Fan	8	6
1321011	Turbine Fan	3	6
119001002	Turbine Rotor	2	1-6, 1-4
110088001	Turbine Rotor	2	6
114021011	Turbine Assembly	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
110088009	Turbine Rotor	1	5
110082006	Turbine Rotor	1	2
2040604483	Turbine Fan	1	6
KSP90015	Trunnion	14	6
KSP90013	Trunnion	2	6
RSP90015	Trunnion	1	6
3755412	Coupling	13	6
20404685	Coupling	6	6
AE93531J	Coupling Half	5	6
2040406045	Coupling	4	1-5, 2-4, 1-3
2040406037	Coupling	3	1-5, 1-4, 1-3
AE93532J	Coupling Half	3	6
37552516	Coupling Half	2	6
2090606543	Coupling Assembly	1	6
37554	Coupling	1	6
SKCP22811	Coupling	1	6
4562350	Coupling	1	6
3750412	Coupling	1	6
37520416	Coupling	1	6
375510	Coupling Half	1	6
30055412D	Coupling Half	1	6
2040406875	Coupling, Main	1	6
—	Electrical	13	12-6, 1-5
2040400165	Transmission	12	6
2040400163	Transmission	5	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
20404000117	Transmission	2	6
20404000961	Transmission	1	6
—	Rotor & Transmission	7	5-6, 1-4, 1-1
04050000	Rotor & Transmission	1	6
20504027633	Quill Assembly	12	1-7, 9-6, 2-5
204043633	Quill Assembly	5	1-7, 2-6, 2-4
2040107405	Quill Assembly	1	6
20404000335	Quill Assembly	1	6
1300242	Wire Harness	11	6
A900	Solenoid	10	1-6, 9-5
79247	Solenoid	5	6
2090627611	Solenoid	1	6
451858H60	Seal	10	6
KIT5091	Seal	9	6
1300232	Seal	7	6
1300336	Seal	6	6
420120H	Seal	5	6
1300214	Seal	4	6
455942H	Seal	4	6
1300173	Seal	2	6
130033402	Seal	1	6
71X7062	Seal	1	6
130036807	Seal	1	6
130023201	Seal	1	5
20506080515	Seal	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
20503067324	Window	12	8-6, 4-4
20503067323	Window	2	6
2050302851	Window	1	6
2050316697	Window	1	4
1300176	Bearing	9	6-6, 2-5, 1-4
1300015	Bearing	8	5-6, 2-5, 1-4
P203NPPES50160	Bearing	8	6
9103NPP	Bearing	4	6
9101NPPFS160	Bearing	4	6
5400111109	Bearing	4	6
MS276416	Bearing	4	6
2040117121	Bearing	4	6
2040111191	Bearing	4	6
9103PPANG25	Bearing	3	6
P203NPPFS50160	Bearing	3	6
204010749	Bearing	3	6
MS20201KP6A	Bearing	2	6
54001111013	Bearing	2	6
130008201B	Bearing	2	1-6, 1-5
B54522	Bearing	2	6
MS2764110	Bearing	1	6
130011904	Bearing	1	6
2040107041	Bearing	1	6
204040461	Bearing	1	6
MM210VM2	Bearing	1	5

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
130001502	Bearing	1	5
130001502P	Bearing	1	6
130001504	Bearing	1	1
130001504L	Bearing	1	1
5400111281	Bearing	1	6
5400114151	Bearing	1	6
130008218	Bearing	1	5
1300082	Bearing	1	6
130008201A	Bearing	1	6
13000821A	Bearing	1	6
1300329	Bearing	1	6
2040117691	Bearing	1	6
1300178	Adapter, Connector	9	6
A101892	Adapter, Connector	1	6
130017802	Adapter, Connector	1	6
MS8001E200A	Hose Assembly	9	6
1240386D0096	Hose Assembly	8	6
1240414D0140	Hose Assembly	6	6
1240276D0133	Hose Assembly	6	6
66603540210	Hose Assembly	5	6
1300202	Hose Assembly	3	6
MS87028K312E140	Hose Assembly	3	6
132626050210	Hose Assembly	3	6
MS87028E216A	Hose Assembly	3	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
1300139	Hose Assembly	2	6
MS8001E200A	Hose Assembly	2	6
15210	Hose Assembly	2	6
70009F00Y324	Hose Assembly	1	3
1240414D140	Hose Assembly	1	6
1240276D0146	Hose Assembly	1	6
70009F245Z346	Hose Assembly	1	6
MS8000K2605	Hose Assembly	1	6
MS8001E330A	Hose Assembly	1	6
MS8001F200A	Hose Assembly	1	6
MS8001G130B	Hose Assembly	1	6
MS8001G330A	Hose Assembly	1	6
15614116D0180	Hose Assembly	1	6
20406265021	Hose Assembly	1	6
20506265023	Hose Assembly	1	6
2050762011	Hose Assembly	1	6
20506265015	Hose Assembly	1	6
2050762351	Hose Assembly	1	6
10966	Hose Assembly	1	6
S347164300W110	Hose Assembly	1	6
245640313F0330	Hose Assembly	1	6
1300134	Hose Assembly	1	5
37550412	Hose Assembly	1	6
S218121308W	Hose Assembly	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
IS87029M0284E220	Hose Assembly	1	6
MS8001F200A	Hose Assembly	1	6
MS8001E320A	Hose Assembly	1	6
1300142	Hose Assembly	1	6
124038D0096	Hose Assembly	1	6
20506265017	Hose Assembly	1	6
110007807	Impeller	6	2-6, 3-5, 1-2
11007809	Impeller	6	3-6, 2-5, 1-4
11000877	Impeller	2	6
11007803	Impeller	2	5
21794	Impeller	1	4
116016010	Manifold Assembly	6	3-6, 2-5, 1-2
116016009	Manifold Assembly	3	6
2040463875	Manifold Assembly	2	6
111010304	Manifold	1	6
117015002	Manifold, Fuel	1	2
113073002	Manifold	1	6
MS21908D6	Elbow	6	6
MS219266D	Elbow	2	6
AN939D10	Elbow	1	6
MS2190824	Elbow	1	6
MS21907D6	Elbow	1	6
12060500	Utility System	6	6
—	Utility System	3	6
110009013	Case Assembly	6	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
X134296	Clutch	6	4-6, 2-4
X131720	Clutch	5	1-6, 3-4, 1-1
—	Fuel System	6	6
30E2061A	Starter Generator	5	4-6, 1-5
XW201732	Motor	5	6
2040605499	Cooler Assembly	4	6
MS25445	Circuit Breaker	4	6
MS2524452	Circuit Breaker	2	6
MS2524410	Circuit Breaker	1	6
2040319203	Damper	4	6
SGT5206	Damper Assembly	1	6
SGT5204	Damper Assembly	1	6
MS214831	Inverter	4	3-6, 1-5
MGH159200	Inverter	2	6
522292900	Inverter	2	6
2050751401	Inverter	2	6
MS219831	Inverter	1	6
MS21983B	Inverter	1	6
MS219831	Inverter	1	6
114047005	Nozzle	4	6
111052019	Nozzle, Turbine	1	6
1300347	Nozzle	1	6
11072040	Compressor	4	6
11072033	Compressor	3	6
110044007	Compressor Assembly	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
	Instruments	4	
2040118019	Hub Assembly	3	6
20401210119	Hub Assembly	2	6
2040121015	Hub Assembly	2	6
5400111019	Hub Assembly	2	6
2040118015	Hub Assembly	1	1-6, 1-5
20401110111	Hub Assembly	1	5
MS287776	Washer	3	6
116063501	Washer, Special	1	6
20401172819	Grip Assembly	3	2-2, 1-1
205031669109	Track	3	6
205031669110	Track, Cargo	1	4
130026801	Pin	3	1-5, 1-4, 1-1
2040607525	Pin	2	1-5, 1-6
AN152	Pin, Lock	1	
MS203923C45	Pin	1	4
2040012341	Pin	1	6
MS2053182	Pin, Straight	1	6
41531	Mount	3	6
3802	Mount	1	6
2040319277	Mount	1	6
28876	Filter	3	1-6, 2-5
2050760345	Filter Assembly	2	6
02W10116	Filter	2	6
20404076013	Filter Assembly	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
20506025427	Filter Assembly	1	6
2050760343	Filter Assembly	1	6
MS251901320	Wire	3	6
MS25190B20	Wire	1	6
MS25190B18	Wire	1	6
MS906008	Bolt	3	2-5, 1-4
115005901	Bolt	2	1-8, 1-6
MS97058	Bolt	1	6
AN17315	Bolt	1	6
AN2354A	Bolt	1	8
2040013471	Bolt	1	6
110072023	Compressor Rotor Assembly	3	1-6, 2-5
110072040	Rotor Assembly	1	5
2040110621	Tip Cap	3	6
5400110251	Tip Cap	1	6
2040110651	Tip Cap	1	6
20507540719	Cable Assembly	3	6
MS2517115	Cable Assembly	2	6
2050754011	Cable Assembly	1	6
2050754023	Cable Assembly	1	6
2050754073	Cable Assembly	1	6
1566UH1H678	Cable Assembly	1	6
2050754073	Cable Assembly	1	6
2050017069	Cable Assembly	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
MS251711S	Cable Assembly	1	6
2050754025	Cable Assembly	1	6
CN998ASN43	Gyro	3	6
—	Gyro	1	6
20401140011	Swashplate Assembly	3	2-6, 1-1
2040114007	Swashplate Assembly	1	6
5400113843	Collet Set	2	6
MS21902D4	Nipple Tube	2	6
MS2439204	Nipple Tube	2	6
MS21924D6	Nipple Tube	1	6
AN8326D	Nipple Tube	1	6
MS21924D4	Nipple Tube	1	6
MS21902D5	Nipple Tube	1	6
MS24392D16	Nipple Tube	1	4
110139	Brush	2	6
110024408	Disc	2	5
BYLB79	Disk	1	6
MS124661	Insert	2	6
107006204	Gear, Spur	2	1-5, 1-6
111007201	Gear Assembly	1	3
11014683	Gear Assembly	1	6
20404050010	Gear, Bevel	1	4
2040405009	Gear, Bevel	1	1
103010401	Gear, Bevel	1	5

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
D4150ARN	Dyna Motor	2	6
MS252414581	Lamp	2	6
2040107681	Sprocket Wheel	2	6
2040406203	Shaft Assembly	2	6
2050400043	Drive Shaft Assembly	2	1-5, 1-6
108027004	Shaft, Gear	1	5
116049001	Shaft, Gear	1	6
108032001	Shaft, Gear Assembly	1	5
2040720021	Shaft Assembly	1	6
39970	Shaft	1	5
116044401	Shaft	1	5
2040617203	Shaft, Jack	1	6
2050607101	Shaft, Jack	1	5
2040405029	Cap Assembly	2	1-6, 1-4
20503029212	Cap Assembly	2	6
20503029211	Cap Assembly	2	6
20404050211	Cap Assembly	1	6
2050302919	Cap Assembly	1	6
20503029110	Cap Assembly	1	6
2040010425	Gradient Assembly	2	6
2040107753	Housing, Quill	2	6
2040107405	Housing, Quill	1	6
52490	Cross Fitting	2	6
2040107429	Control Tube	2	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
25820153	Solenoid Valve	2	6
2040720241	Suspension Assembly	2	6
111025002	Pan Assembly	2	6
111025001	Pan Assembly	1	6
114018201	Cover	2	4
20503061429	Cover, Access	1	4
2050722771	Sensor	2	1-6, 1-4
CH27423	Rheostat	2	6
AN315525100	Rheostat	1	6
01017088	Blanket	2	4
2040706121	Blanket	1	6
20507061254	Blanket	1	6
2040760529	Cylinder Assembly	2	1-6, 1-1
—	Spring, Utility	2	6
2040010445	Spring Assembly	1	6
A51703AR	Antenna	2	1-6, 1-4
—	Avionics	2	6
120008028E20	Shim	2	6
120006C6045	Shim	1	6
AN126000	Stud	2	6
MS202202	Pulley Groove	2	6
111023008	Housing, Diffuser	2	6
20403085388	Rubber Strip	1	6
20403085373	Rubber Strip	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
20406088128	Cowl Assembly, Transmission	1	4
205060826135	Cowl Assembly, Transmission	1	4
—	Air Frame	1	6
13066301	Ring	1	4
2040608681	Ring	1	6
MS166241093	Ring, Retainer	1	6
RR511	Ring, Retainer	1	6
2050605361	Bracket	1	6
2040306968	Bracket Assembly	1	4
79165	Strainer	1	6
230036101	Strainer Assembly	1	5
93195	Screw	1	1
118013501	Screw	1	6
11691076	Screw	1	6
AN52510R10	Screw	1	6
101050008	Particle Separator	1	6
—	Tape	1	6
204076055511	Vane, Irriversible	1	6
106033003	Vane Inlet	1	6
110104003	Vane Assembly	1	6
110111007	Vane Assembly, Stator	1	6
2050401763	Boot	1	5
2040114621	Boot	1	6
2040111271	Link Assembly	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
20401176211	Link Assembly	1	6
2040760681	Link, Connecting	1	3
2050751341	Tube, Vent	1	6
205031837215	Chip	1	6
C1611AA1C	Control	1	6
2040753995	Card Assembly	1	6
—	Card, Amplifier	1	6
ANARC115	Receiver-Transmitter	1	6
ANARC51BX	Receiver-Transmitter	1	6
ANARN82	Receiver	1	6
SMB692590	Receiver-Transmitter	1	6
RT1021ARN30D	Receiver	1	6
R1021	Receiver	1	6
54001114313	Spacer Sleeve	1	6
2050312511	Damper Mount Assembly	1	6
2050312512	Damper Mount Assembly	1	6
H38K613	Latch	1	4
2050740261	Light, RPM	1	6
M8117421A	Light, Search	1	6
AN31779	Light, Nav	1	6
G62504	Light, Search	1	6
MS25010A11A327	Light Panel	1	6
B6618	Light Panel	1	6
HN55342	Thermocouple	1	6
115007703	Thermocouple	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
5469087G5	Thermocouple	1	6
RB17351	Housing, Pump	1	6
113061005	Housing Assembly	1	6
RT348ARC54	Radio FM	1	6
522546300	Radio FM	1	6
—	Fuse	1	6
RT742ARC518BX	Transceiver	1	6
2040111205	Pitch Horn	1	6
2050019141	Horn Assembly	1	6
216105501	Nut, Jam	1	6
MS21086L4	Nut	1	6
AN92412D	Nut	1	6
MS24665153	Nut	1	5
MS210424	Nut	1	5
MS2104214	Nut	1	6
MS21045L8	Nut	1	6
2040107473	Guard	1	6
MS25036103	Terminal Lug	1	6
MS25036102	Terminal Lug	1	6
—	Terminal Lug	1	6
MS25036149	Terminal Lug	1	6
8000701	Panel, Fault	1	6
MS915872	Shunt	1	6
2040722639	Heat Exchanger	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
2050626359	Tank, Fuel	1	6
2050616213	Tank, Fuel	1	6
2040013371	Bell Crank Assembly	1	6
2050607513	Bell Crank	1	6
2040018321	Bell Crank	1	6
2050304915	Hook Latch	1	6
NAS4248D	Coupling Tube	1	6
MS21909D6	Tee Tube	1	6
MS21911D5	Tee Tube	1	6
MS21911D4	Tee Tube	1	6
2040110251	Weight	1	4
2040110253	Weight	1	6
2040722647	Blower Unit	1	4
2040722615	Blower Unit	1	6
20503084627S	Stiffener, Spar	1	6
111002302	Plate	1	6
2040107463	Plate	1	6
MILR7611TYPEMA1	Relay Armature	1	6
MS243321	Voltmeter AC	1	6
MS30574A	Clamp	1	6
2040764333	Clamp Half	1	6
EAR700D6	Clamp Loop	1	6
AN735D80	Clamp Loop	1	6
MS24172D1	Seal Retainer	1	6
CP53B1KE105K1	Capacitor	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
MS179832	Compass	1	6
MS219226	Sleeve	1	6
MS25190818	Harness	1	6
9T39Y5	Transformer	1	6
C980	Transformer	1	6
20401042219	Liner, Bearing	1	6
20400129001	Control Stick	1	6
39300401970	Fuel Quantity	1	6
115024003	Diffuser Exhaust	1	6
MS901509	Plug	1	5
MS24399D21	Reducer Tube	1	6
W4A18	System	1	6
204011281	Universal Assembly	1	6
2040110391	Tab, Trim	1	6
2040113011	Level Assembly	1	6
2040113131	Level Assembly	1	6
24942211	Lens, Transmission Hot	1	6
2494227	Lens, Twenty MIN WNG	1	6
2040107203	Slider	1	6
2040111371	Turnbuckle	1	6
205030164187	Clip	1	5
2040121127	Strap Assembly	1	6
2040760125	Accumulator	1	6
BB600A	Cell	1	6
2040012741	Lining	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
11701204	Barrel	1	6
20507045611	Duct Assembly	1	6
294F54G180	Element	1	6
2040607879	Cam, Droop	1	6
H40K832	Catch Assembly	1	4
105879	Washer Key	1	6
2050301051	Support	1	6
2050019101	Support Assembly	1	6
118010902	Retainer, Packing	1	6
2040709071	Motor Assembly	1	6
112002901	Spacer Ring	1	5
116024401	Band, Compressor	1	6
116024501	Band, Compressor	1	6
2040012951	Lever	1	8
2050019025	Lever Assembly	1	6
2040607657	Lever	1	6
76883	Yoke	1	6
75175	Stand Pipe	1	1
2050605373	Thermal By Pass	1	6
SKEP22811	Flexible Plate	1	8
2040406231	Hanger Assembly	1	6
D752GDBC12	Plug, Magnetic	1	6
B752G	Plug, Magnetic	1	6
20401140613	Scissors Assembly	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
MS8001G1308	Line	1	6
2040016015	Stick Assembly	1	6
—	VHF T366 ARC	1	6
2040753993	Board Assembly	1	6

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CRASH FACTS DATA

NUMERICAL ORDER OF FAILURES

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
10006010	Engine	71	1-8, 49-6, 14-5, 5-4 1-3, 1-1
100006023	Engine	5	2-6, 1-5, 1-2, 1-1
2040605413	Switch	52	6
88617	Switch	32	6
2040625423	Switch	21	6
2090013101	Switch	13	6
F74356	Switch	8	6
139243	Switch	2	6
42D207	Switch	2	6
H20078	Switch	1	6
GPB7506	Switch	1	6
2040625421	Switch	1	6
100316	Switch	1	6
44HY26254	Switch	1	6
2040760571	Switch	1	6
MS2452326	Switch	1	6
MS2466023G	Switch	1	6
13AT66	Switch	1	6
7G542	Switch	1	6
139240	Switch	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
80C87A	Switch	1	6
2050760445	Switch	1	6
7G1981	Switch, Pressure	20	6
76981	Switch, Pressure	6	6
8G506	Switch, Pressure	6	6
2040403763	Switch, Pressure	6	6
124112230	Switch, Temperature	6	6
2050401873	Gasket	31	6
2040760051	Servo Cylinder	30	25-6, 1-5, 2-4, 1-2, 1-1
20907602111	Servo Cylinder	1	6
166015	Servo Cylinder	1	6
2040760057	Servo Cylinder	1	6
MS287786	Packing	19	6
MS29513027	Packing	1	6
MS29513237	Packing	1	6
NAS6176	Packing	1	6
MS29561325	Packing	1	6
MS2051210	Packing	1	6
20904040011	Gearbox, 90°	18	6
84200A6	Fuel Control	14	5-6, 9-5
84200A7	Fuel Control	6	4-6, 2-5
100770A2	Fuel Control	4	2-6, 2-5
84200A7A	Fuel Control	3	6
10077A3	Fuel Control	1	6

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PARKS COLL OF SAINT LOUIS UNIV CAHOKIA ILL
CRITICAL PARTS.(U)
MAY 80 R BOLL, J T HARRINGTON, J KUSTURA

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<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
5700740803	Transducer	13	6
5700740801	Transducer	1	2
CA2H1	Battery	12	6
MS244981	Battery	7	6
2050606063	Pump, Submerged	11	6
2040760061	Pump	7	6
1300212	Pump	4	6
PVB0442	Pump Assembly	4	6
1300221	Pump	1	6
1300212	Pump, Oil	1	6
RG17350	Pump, Oil	1	6
90084612D	Elbow	10	6
120212D	Elbow	3	6
MS24392D8	Elbow	1	6
MS21908D16	Elbow	1	6
81800A1	Governor	10	8-6, 1-5, 1-4
116085016	Governor	2	6
2090752281	Regulator, Voltage	10	6
20905000245	Cross Tube	9	7-4, 2-3
20905000241	Cross Tube	6	2-7, 3-4, 1-3
2090531011	Cross Tube	1	4
2050017481	Chain Assembly	8	3-6, 2-5, 1-3, 1-2, 1-1
2040017393	Chain Assembly	4	2-6, 2-5
2050017211	Chain Assembly	1	5

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
EX26292	Chain, Silent	1	6
1300243	Chip Detector	8	6
B7674A	Chip Detector	4	6
20407605311	Servo, T/R	8	5-6, 1-5
41103740	Servo	4	2-6, 2-4
21701141	Indicator, Pressure	7	6
2090606025	Indicator	5	2-6, 1-5, 1-3, 1-1
MS280091	Indicator, Temperature	6	6
217001141	Indicator, Pressure	3	6
2090756581	Indicator, Pressure	2	6
217A100A	Indicator, Pressure	1	6
PD125438A	Indicator, Pressure	1	6
21700141	Indicator, Pressure	1	6
1481100101	Indicator, Altitude	1	6
80019931	Panel Assembly	7	6
20407570543	Panel Assembly	6	6
440810045	Panel Assembly	3	6
20407570549	Panel Assembly	1	6
2040757003	Panel Assembly	1	6
7501521	Panel Assembly	1	6
80009917	Panel Assembly	1	6
20907532563	Panel	1	6
54001111013	Bearing	7	6
130015	Bearing	3	2-6, 1-5

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
5400111109	Bearing	3	6
9103NPP	Bearing	2	6
1300176	Bearing	1	6
1300006	Bearing	1	6
130011903E	Bearing	1	6
H33C32	Bearing	1	6
2090010711	Bearing	1	6
9101NPPFS160	Bearing	1	6
8906595	Bearing	1	2
130004	Bearing	1	2
130001504	Bearing	1	5
2040107049	Bearing	1	6
130008201	Bearing	1	6
130008201A	Bearing	1	6
204040623	Bearing	1	6
J33C32	Bearing	1	6
4180041	Transmitter	7	6
31800040	Transmitter	6	6
MS280343	Transmitter	4	6
3440130A221	Transmitter	1	6
TRU66A	Transmitter, Pressure	1	6
T66631980250	Hose Assembly	6	6
MS8001H170E270	Hose Assembly	2	6
MS87028K072C	Hose Assembly	2	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
MS8001G224C	Hose Assembly	2	6
MS800J1076	Hose Assembly	1	6
MS800E304F345	Hose Assembly	1	6
MS87028K0082B	Hose Assembly	1	6
MS800K224K200	Hose Assembly	1	6
MS87028K00821B	Hose Assembly	1	6
MS8001G120E330	Hose Assembly	1	6
MS8001E230B	Hose Assembly	1	6
MS8001E12213	Hose Assembly	1	6
MS8001F1146	Hose Assembly	1	1
MS8001G274A	Hose Assembly	1	6
T6603560146	Hose Assembly	1	6
T66631980250	Hose Assembly	1	6
MS8001E244A	Hose Assembly	1	6
MS8001F124A	Hose Assembly	1	6
MS8001E122B	Hose Assembly	1	6
MS8001H170E270	Hose Assembly	1	6
1300202	Hose Assembly	1	4
11687453	Hose Assembly	1	6
BE12YZ083000	Hose Assembly	1	6
130013801	Hose Assembly	1	6
—	Hose Assembly	1	6
2040408163	Valve Assembly	6	6
465C62WSW	Valve	5	6
465C62NSW	Valve	4	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
RB17365	Valve, Relief	3	6
1090605011	Valve, By Pass	3	6
2040764371	Valve, Check	2	1
81516AP	Valve, Drain	2	6
2040760123	Valve Assembly	2	6
28040	Valve	1	6
2090606611	Valve	1	6
2090721491	Valve	1	6
AV16B1748D	Valve	1	6
204048161	Valve Assembly	1	6
2090761361	Valve	1	6
2090605011	Valve, By Pass	1	6
2040764391	Valve, Solenoid	1	6
26330053	Valve, Anti-Icing	1	6
5700740107	Sensor Amplifier	6	6
57007401011	Sensor Amplifier	4	6
57007403723	Sensor Amplifier	2	6
57007043715	Sensor Amplifier	1	6
57007403711	Sensor Amplifier	1	6
57007403719	Sensor Amplifier	1	6
5700740751	Sensor Amplifier	1	1
2090705851	Impeller	6	6
110007807	Impeller	3	2-6, 1-5
1978031	Impeller	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
AN3025300	Relay	6	6
2090753231	Relay	1	6
56HL265	Relay	1	6
RY4LA3B301	Relay	1	6
MS24181D1	Relay	1	6
3S2791G200F9	Relay	1	6
MS25457D1	Relay Armature	1	6
MS24181D2	Relay, Main Inverter	1	6
GEU7A	Generator, Tach	5	6
30E2061A	Generator	4	6
MILG2661GEU71	Generator, Tach	3	6
2040602001	Generator	3	6
23064001	Generator	2	6
32005007	Generator, Tach	2	6
22A554	Generator, Tach	1	6
22A54	Generator, Tach	1	6
20404000337	Gearbox, 42°	4	6
108025016	Gearbox	1	6
375S0412	Coupling Half	4	6
37520010	Coupling	1	6
D7200151A	Coupling	1	5
11687222	Coupling Assembly	1	6
HE91043H	Coupling Half	1	6
MS2877304	Retainer, Packing	4	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
118015001	Actuator	4	3-6, 1-5
5700760021	Actuator, Servo	3	6
117005008	Actuator	2	6
117005002	Actuator	1	6
SYLC919010	Actuator	1	4
MS21902D4	Nipple Tube	4	6
MS21902D6	Nipple Tube	1	6
MS24392D8	Nipple Tube	1	6
2090705541	Insulation	3	6
451858H60	Seal	3	6
445942H	Seal	2	6
S11940114G5	Seal	2	6
1300173	Seal	2	6
1300232	Seal	2	6
KIT5091	Seal	1	6
450161H	Seal	1	6
130023101	Seal	1	6
1300336	Seal	1	6
5091	Seal	1	6
H605S063D213	Catch Assembly	3	4
11687233	Tube Assembly	3	6
2040407331	Tube Assembly	2	6
209076021	Tube Assembly	2	6
2090762021	Tube Assembly	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
20907603641	Tube Assembly	1	6
2050761561	Tube Assembly	1	6
2070762131	Tube Assembly	1	6
2090762081	Tube Assembly	1	6
2090762121	Tube Assembly	1	6
2090762721	Tube Assembly	1	6
2090763961	Tube Assembly	1	6
2090763031	Tube Assembly	1	6
11300114N256	Tube	1	6
2090762581	Tube Assembly	1	6
70012H000V132	Tube Assembly	1	6
MS2207310	Circuit Breaker	2	6
MS252445	Circuit Breaker	1	6
MD4983	Brake Assembly	2	6
MP4983	Brake Assembly	1	6
204001B763	Brake Assembly	1	6
R460M1511	Brake, Magnetic	1	6
2090401531	Quill Assembly	2	6
2040107405	Quill Assembly	2	1-6, 1-4
2050402633	Quill Assembly	1	5
2040606009	Hanger Assembly	2	1-6, 1-4
2040400165	Transmission	2	6
2099614003	Transmission	1	6
2090752133	Inverter	2	6
TYPEPY543PRENA	Inverter	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
PU543A	Inverter	1	6
PS3521	Inverter	1	6
MS219831	Inverter	1	6
2697	Handle, Door	2	6
MS3406R12S3S	Connector	2	6
30051R12S3S	Connector	2	6
P123	Connector	1	6
MS3106R14S9S	Connector	1	6
MS3406R12S3S	Connector	1	6
MS3126F106S	Connector	1	6
CA227922865	Connector	1	6
MS3106R366P	Connector	1	6
13001782	Connector	1	6
74964	Connector	1	2
AN6289D6	Locknut Fitting	2	6
AN6289D8	Locknut	1	6
AN6289D4	Locknut	1	6
8035609	Launching Pod	2	6
MS21910D4	Tee Tube	2	6
MS21910D6	Tee Tube	1	6
M2191204	Tee Tube	1	6
2090605221	Oil Cooler	2	6
AP22AN12001	Oil Cooler	1	6
2090605223	Oil Cooler	1	6
11688148	ECA	2	1-7, 1-6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
2090705543	Duct	2	6
2090703011	Duct	1	6
2090704331	Duct	1	6
2090724037	Duct	1	6
117042001	Manifold	2	6
11677217	Manifold	1	6
209053951	Control Unit	2	6
2090740521	Control Unit	1	6
3234005110	Control AMP	2	1-8, 1-6
3234007110	Power Supply	2	8
2090308739	Cover Assembly	1	4
20903087311	Cover Assembly	1	4
2090011471	Cover Assembly	1	6
20996110621	Stiffener	1	4
110126002	Rotor Assembly	1	5
116041701	Gear Shaft	1	2
2120107011	Hub & Blade Assembly	1	6
2120107019	Hub Assembly	1	6
54001110117	Hub Assembly	1	6
5400112501	Blade Assembly	1	1
20401170217	Blade, T/R	1	6
2090701021	Piping Installation	1	6
20907542813	Cable Assembly	1	6
2090754061	Cable Assembly	1	6
2090754319	Cable Assembly	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
6220001444687	Light, Search	1	6
MS252414581	Lamp	1	2
2090609237	Element	1	6
2120609237	Element	1	6
12007334	Cord	1	6
209074511	Interface Control	1	6
54001115315	Extension Assembly	1	6
2040604483	Turbine Blower	1	6
37520010	Pin	1	6
116887453	Stow Lock	1	6
20907511613	Vent Tube Assembly	1	6
11688148	Control System	1	4
61752831	Control Sensor	1	6
20404076013	Filter	1	6
2097061913	Fairing Assembly	1	8
2090710366	Fairing, Nose	1	4
115010703	Strainer, Oil	1	6
2040762027	Nut Assembly	1	6
2040107651	Nut, Control	1	6
2090308009	Tail Boom	1	4
20906030119	Ejector	1	6
2090017781	Turnbuckle	1	6
2090303741	Support Assembly	1	6
2040601211	Support Block	1	6
2050017521	Sprocket	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
C1611DA1C	Intercom	1	6
110036106	Blade, Compressor	1	5
5700740107	Blade, Compressor	1	6
2090305835	Door Assembly	1	6
2090305839	Door Assembly	1	6
2090710802	Rack Assembly	1	8
150010014	Rack Assembly	1	4
2090761351	Accumulator	1	6
MS21902D6	Fitting	1	6
11687225	Fitting, Line	1	6
MS21902D5	Fitting	1	6
2090605323	Fitting	1	6
MS124661	Insert, Screw	1	6
2090627611	Solenoid	1	5
2090724361	Fan, Centrifugal	1	6
2040625401	Fan, Cooler	1	6
110049903	Disk Assembly	1	5
5400110233	Stud	1	5
AN126420	Stud	1	6
2090013101	Stud	1	6
93195	Screw	1	2
2040406203	T/R Drive Shaft	1	6
2040319277	Mount Assembly	1	6
MT3791BARC134	Mount	1	6
2040607657	Lever Assembly	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
2090751045	Electrical Instrument	1	6
57007403721	Card, Roll	1	6
M50867189	Wire	1	6
22702851	Control Alarm	1	6
107014001	Gear Assembly, Bevel	1	5
2040405009	Gear, Bevel	1	5
MS24399D13	Reducer Tube	1	6
2090305173	Hinge	1	4
2090305177	Hinge	1	6
2090302305	Bumper Assembly	1	6
5700741313	Compensator	1	6
2040107429	Control Tube	1	6
11701204	Barrel	1	6
2090104001	Switch Plate Assembly	1	6
600067	Guide Tube	1	6
C1611DA1C	Intercom	1	6
115010801	Adapter	1	6
110029202	Bolt	1	6
106018001	Housing	1	6
42579	Spring, Helical	1	1
110038301	Blade	1	6
MS25036101	Terminal Lug	1	6
2120107111	Link Assembly	1	6
20907602111	Cylinder Assembly	1	6
2050753881	Box, Warning	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
H9051	Cowling Latch	1	6
113061012	Housing, Valve	1	6
SGT12701	Dampner Assembly	1	6
2120107751	Crosshead	1	6
2090740521	Servo Electronic	1	6

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CRASH FACTS DATA

NUMERICAL ORDER OF FAILURES

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
369A5400603	Transmission Assembly	9	6
369A5100607	Transmission Assembly	5	6
369A5100601	Transmission	4	6
369A5100605	Transmission	2	6
369A5100609	Transmission	2	6
6874255	Governor	8	7-6, 1-5
369A5185	Switch	5	6
369A4534	Switch	1	6
MS2510621	Switch	1	1
6871111	Fuel Control	8	6
369A4517	Generator, Tach	4	6
23032022	Generator	1	6
369A5160	Chip Detector	3	6
369A801625	Hose Assembly	2	6
369A813119	Hose Assembly	1	6
369A47253	Hose	1	6
369A5186	Packing	2	6
MS9388012	Packing	1	6
369A5302	Impeller	2	6
BB641A	Battery	3	6
BB678A	Battery	2	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
6840139	Gasket	2	6
369A7304	Gasket Assembly	1	6
369A5302	Oil Cooler Assembly	2	6
Y926521N36YDRL	Tape	2	6
369A4652	Regulator, Voltage	2	6
6855347	Pump	2	6
369A5264	Pump	1	6
369A8143	Pump	1	6
369A5264	Pump	1	6
2520501	Bearing	2	1-6, 1-5
6876009	Bearing	1	5
2526146	Bearing	1	5
6876012	Bearing	1	5
6876008	Bearing	1	5
369AB083	Tee-Tube	2	6
369A24202	Windshield	2	1-4, 1-6
369A414315	Wire Harness, Battery	1	6
369A20472	Window Panel	1	6
124878	Indicator	1	6
369A4330	Indicator	1	6
MS28045T2	Indicator, Airspeed	1	1
AW1842AR01	Indicator	1	6
369A6202	Spring	1	6
6858345	Compressor Rotor	1	5
6875845	Compressor	1	5

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
HS610CP3132191260	Bushing	1	4
369A17109	Blade	1	4
369A5350601	Clutch, Overrunning	1	6
6871234	Tube Assembly	1	6
6859956	Tube Assembly	1	6
369A45111	Panel, Caution	1	6
6874944	Tube, Compressor	1	6
369A5518601	Shaft Assembly	1	6
369A5758	Shaft, Transmission	1	2
6871429	Rotor Assembly	1	5
6871445	Rotor	1	5
369A8420	Valve	1	4
369A8054	Valve Assembly	1	6
6870791	Seal	1	6
369A8322	Seal, Oil Tank	1	6
710058	Seal, Fuel	1	6
6874086	Seal	1	6
369A5167D	Seal Assembly	1	6
369A4557	Relay, Armature	1	6
A700X	Relay	1	6
A700XA	Relay	1	6
369A4533	Transmitter	1	6
6810362124	Screw	1	6
RD17684	Filter Element	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
6847210	Shield	1	6
369A8116	Duct Assembly, Fuel	1	5
369A8128	Fairing, Fuel Vent	1	6
369A7712	Link Assembly	1	6
6850734	Ring	1	2
E9072A	Filler Cap	1	6
369A4730	Valve, Solenoid	1	6

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CRASH FACTS DATA

NUMERICAL ORDER OF FAILURES

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
2040764041	Switch	113	6
124112230	Switch	61	6
7G1981	Switch	57	6
2060763651	Switch	48	6
7G1991	Switch	4	6
2060625031	Switch	4	6
2060626591	Switch	3	6
761981	Switch	2	6
3G1981	Switch	1	6
2040403763	Switch	1	6
124112130	Switch	1	6
MS3505822	Switch	1	6
H20078	Switch	1	5
A07032	Switch, Cycling	1	6
2060400035	Transmission	89	87-6, 1-2, 1-5
6874255	Governor	66	46-6, 17-5, 2-4, 1-2
25244381	Governor	3	6
6854622	Valve, Check	57	32-6, 23-5, 1-2, 1-4
6870460	Valve Assembly	11	2-5, 9-6
8527855	Valve Control	7	6
6873599	Valve, Check	6	2-5, 4-6

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<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
2060760361	Valve, Relief	4	6
20607049113	Valve	2	6
6875224	Valve, Check	1	5
2060626041	Valve	1	6
15431	Valve, Solenoid	1	6
42C42626	Valve, Solenoid	1	6
2060625041	Valve	1	6
6854607	Valve	1	6
25244293	Valve, Double Check	1	6
2060760303	Pump, Rotary	33	6
2060626283	Pump Assembly	7	6
6854292	Pump Assembly	5	2-6, 3-5
206062628	Pump Assembly	4	6
6855347	Pump	2	6
2060626281	Pump Assembly	1	6
65216	Pump, Hydraulic	1	6
B3225C	Chip Detector	29	6
6871641	Chip Detector	20	6
B3188B	Chip Detector	12	6
B3182B	Chip Detector	6	6
B752G	Chip Detector	2	6
B7674A	Chip Detector	3	6
133325C	Chip Detector	1	6
133225C	Chip Detector	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
6871111	Fuel Control	27	21-6, 6-5
2060626271	Generator, Tach	22	20-6, 2-5
2060763731	Generator, Tach	7	6
23032022	Generator	29	6
30B6915A	Generator	11	6
2925EG002	Generator	13	6
23022022	Generator	5	6
2925EG0022	Generator	1	6
2925EB002	Generator	1	6
2302022	Generator	1	6
2060404009	Gearbox	21	20-6, 1-2
2060404007	Gearbox	10	6
6876268	Gearbox	1	6
2060627211	Actuator, Linear	15	12-6, 3-5
206062724	Actuator, Linear	1	6
2040607621	Actuator	1	6
B9T8B	Elbow Assembly	15	14-6, 1-5
MS24394D6	Elbow Tube	1	6
2060403397	Bearing, No. 2	15	13-6, 1-5, 1-4
6876008	Bearing, No. 2	12	7-6, 4-5, 1-2
2060400363	Bearing, Mast	7	6
2060402071	Bearing	5	6
6876012	Bearing, No. 8	4	1-5, 3-6
6876005	Bearing, No. 2	3	1-5, 2-6
2060403399	Bearing	2	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
6859429	Bearing	2	5
6873915	Bearing	2	1-6, 1-5
2060400357	Bearing	2	6
6875029	Bearing	1	6
MS212313	Bearing	1	6
6876009	Bearing	1	5
2060324141	Bearing	1	6
2060404081	Bearing, Duplex	1	6
2060104691	Bearing	1	6
6876010	Bearing	1	1
6859436	Bearing	1	6
2520501	Bearing, Ball	1	6
6871606	Bearing	1	5
6824702	Bearing	1	5
6879095	Bearing	1	6
P9106NPPB2A2	Bearing	1	6
2060403395	Bearing	1	6
2060403221	Bearing	1	6
2060104421	Bearing, Assembly	1	6
2060112503	Blade Assembly	13	12-6, 1-4
2060107505	Blade Assembly	3	2-6, 1-1
6859956	Tube Assembly	13	12-6, 1-5
2060763831	Tube Assembly	10	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
6854139	Tube, Assembly	5	3-5, 1-4, 1-2
6874944	Tube, Compressor	3	6
6870036	Tube, Compressor	3	6
6871234	Tube, Compressor	2	6
6848472	Tube, Compressor	2	1-6, 1-5
6870035	Tube Assembly	2	6
1300114N90	Tube Assembly	2	6
20607029627	Tube	1	6
6870219	Tube Assembly	1	5
6871014	Tube Assembly	1	5
6844044	Tube Assembly	1	6
6850900	Tube Assembly	1	5
6859956A	Tube Assembly	1	6
20607029629	Tube, Plastic	1	6
6876266	Compressor	10	4-6, 6-5
6875845	Compressor	5	2-6, 3-5
6871430	Rotor, Compressor	3	1-6, 1-5, 1-2
6851116	Rotor, Compressor	3	1-6, 2-2
6871445	Rotor, Compressor	2	1-5, 1-2
6871444	Rotor, Compressor	2	1-4, 1-2
6874390	Compressor Assembly	1	5
6873965	Rotor, Compressor	1	5

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
6871429	Rotor	1	1
6871432	Rotor	1	6
2060754567	Panel Assembly	10	6
2060754565	Panel Assembly	1	6
2040013763	Brake Assembly	10	6
28180	Battery	9	6
CA21H1	Battery	7	6
2060753631	Battery	6	6
BB676A	Battery	1	6
MS244981	Battery	1	6
281804	Battery	1	6
BB6761A	Battery	1	6
2060755451	Sensor, Tach	9	8-6, 1-2
2060755459	Sensor, Tach	1	6
6875224	Accumulator	9	3-6, 6-5
2060754473	Regulator, Voltage	8	6
2060754471	Regulator, Voltage	3	6
2060401381	Seal	8	6
450127H19	Seal	5	6
524919	Seal	3	6
6854086	Seal	3	6
6871662	Seal	3	1-6, 1-5, 1-1

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
451509H19	Seal	2	6
6854424	Seal	2	6
451883H19	Seal	2	6
415364H19	Seal	1	6
6870736	Seal	1	6
6870737	Seal	1	6
68777361	Seal	1	5
6859418	Seal	1	6
45150H19	Seal	1	6
6871165	Scroll Assembly	8	6
31002001	Indicator	7	6
206002001	Indicator, Temp	6	6
2060702679	Indicator	4	6
2060702655	Indicator	3	6
2060702685	Indicator	2	6
35713703002	Indicator	1	6
2060703071A	Indicator	1	6
32002001	Indicator	1	6
2060703072A	Indicator	1	6
65021001	Indicator	1	6
2060702665	Indicator, Tach	1	6
26002001	Indicator	1	6
MS280091	Indicator	1	6
2060705851	Indicator	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
2060305393	Mount Assembly	7	6
6852020	Nozzle, Spray	7	4-6, 3-5
2060753645	Inverter	7	7
2060753643	Inverter	4	6
PS285	Inverter	2	6
PP6376AA	Inverter	1	6
2060760315	Servo Cylinder	5	6
20607603111	Servo Cylinder	3	6
20607603115	Servo Actuator	3	6
2060760311	Servo Cylinder	2	6
41103730	Servo	1	6
KG1217	Servo Assembly	1	6
MS280343	Transmitter	5	6
391089001	Transmitter	1	6
TRU66A	Transmitter, Pressure	1	6
8534998	Cooler, Oil	4	6
8537936	Cooler	2	6
6851929	Housing	4	6
2060402411	Housing, Bearing	1	6
2060402411	Housing	1	6
6875490	Case Assembly	4	6
6874395	Case Assembly	1	5
0214629	Filter, Fuel	4	3-6, 1-5
2060760343	Filter	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
6855872	Adapter, Gearshaft	3	1-6, 2-5
2060010761	Gradient Assembly	3	6
31655242885	Hose Assembly	3	6
AN6270322	Hose Assembly	3	6
2060625271	Hose Assembly	2	6
70010G000X116	Hose Assembly	2	6
640058K000T0346	Hose Assembly	1	6
MS87028F164C	Hose Assembly	1	6
70010F000X116	Hose Assembly	1	6
MS87028E125C	Hose Assembly	1	6
MS87028F125A	Hose Assembly	1	6
156116D0181D350	Hose Assembly	1	6
MS8000E062E140	Hose Assembly	1	5
1560016D00252	Hose Assembly	1	6
2060614321	Blower Assembly	3	2-6, 1-4
2060704753	Blower	2	6
2060739033	Blower Assembly	1	6
2060704753	Blower, Defogging	1	6
2060625051	Tank, Oil	3	6
2060626051	Tank	3	6
4596	Lamp	3	6
AC1022	Lamp	1	6
6823169	Nut	3	6
6746974	Nut	1	6
MS2104214	Nut	1	4
6846278	Nut	1	3

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
6870693	T-Tube	3	6
AN8153J	Nipple Tube	2	6
MS24392C5	Nipple Tube	1	4
MS24392J4	Nipple Tube	1	6
AN737RM44	Clamp	3	2-6, 1-5
4606AC	Clamp	2	6
2060118035	Trunnion Assembly	2	6
2060118037	Trunnion	1	6
2060403151	Collar	2	6
2060118053	Liner, Bearing	2	6
2060315085	Link Assembly	2	1-6, 1-1
2060325007	Door Assembly	2	1-6, 1-4
2060622249	Duct	2	1-6, 1-5
20604023019	Free Wheeling Assembly	2	6
H10805	Hinge L/H	2	1-6, 1-4
2060315753	Hinge L/H	1	6
H10807	Hinge L/H	1	6
2060104505	Swashplate Assembly	2	6
CA20309188	Connector	2	6
MS3126E123S	Connector	2	6
MS25036108	Connector	1	6
2463106R14S5P100	Connector	1	6
MS3406R14S5S	Connector	1	6
AN25523A	Connector	1	4

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
MS3108R12S3S	Connector	1	6
MS3106R8S1S	Connector	1	6
MS3100K14S5S	Connector	1	6
ZY400C	Cap	2	6
MS287786	Packing	2	6
MS287785	Packing	2	6
20026018	Packing	1	6
MS2951206	Packing	1	6
MS9388024	Packing	1	6
MS9388022	Packing, Preformed	1	5
MS287784	Packing	1	6
2060753031	Light, Taxi	2	6
MS246682	Screw, Flat Head	2	6
3510001	Screw	1	6
68255462	Screw	1	6
230331141	Brushes	2	6
2060754623	Rheostat	2	6
CM37455	Rheostat	1	4
2060118019	T/R Blade and Hub Assembly	2	6
2520580	Spring	2	6
20603157419	Rod, Jettison	1	6
20603157421	Rod, Jettison	1	6
2060325163	Latch Assembly, LH	1	4

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
6890480A	Gear Shaft	1	6
6854856	Gear Shaft, Spur	1	6
2060402223	Gear Shaft	1	6
MS2081960	Fitting	1	6
AN6289D6	Fitting, Locknut	1	6
2060703133	Flapper	1	6
C6533ARC	Control	1	6
412B0220	Control Assembly	1	6
412B0270	Control Assembly	1	6
2060102423	Pad	1	6
2925EG0021	Starter	1	6
2060104521	Support	1	6
2060102389	Weight, Blade	1	6
2060403303	Shaft, Assembly	1	6
2060107411	Crosshead Assembly	1	6
2060015261	Bellcrank	1	6
2060627201	Bellcrank Assembly	1	6
2060010613	Clevis, Rod End	1	6
2060617123	Clevis, Rod End	1	6
2060622231	Boot Assembly	1	6
2060754571	Relay, Inverter	1	6
3001410	Circuit Breaker	1	6
B758R	Plug	1	6
MS901508	Plug, Machine	1	5

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
68558554	Orifice	1	6
68558552	Orifice	1	6
6876484	Adapter	1	5
AN81630	Adapter, Pipe	1	6
2090753233	Armature, Relay	1	6
AN1735	Bolt	1	5
AN1746A	Bolt	1	1
20606190517	Cover Assembly	1	6
6871164	Cover Assembly, Oil	1	6
2060521035	Crosstube	1	4
6876814	Thermocouple	1	6
AE94836G	Coupling Half	1	6
2060103381	Bushing	1	6
6877092	Turbine Rotor	1	2
6857912E	Turbine, 2nd Stage	1	1
6847449	Turbine Wheel	1	5
6843393	Turbine Rotor	1	6
2060754281	Box, Warning	1	6
6875488	Diffusor	1	6
A312T16	Stud	1	4
MS2519088	Wire	1	6
M810442229	Wire	1	6
M810442209	Wire	1	6
6871482	Nozzle	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
T2	Fire Extinguisher	1	1
MS905806	Retainer	1	6
0212932	Retainer	1	6
MS948406	Retainer, Packing	1	6
MS203921C7	Pin	1	6
2523172	Pin	1	5
951161	Pin	1	5
6829551	Spanner Nut	1	6
6870059	Igniter	1	6
6852069	Gasket	1	5
6840139	Gasket, Pump	1	6
6850920	Strainer, Oil	1	6
2523102	Strainer	1	6
6855369	Terminal Assembly	1	6
010138501	Reel Assembly	1	6
6877056	Jet Assembly	1	6
68549371	Insert, Screw	1	6
6854149	Gear, Cluster	1	1
6871218SGB	Gear Assembly	1	5
6843394	Labyrinth Seal	1	6
252358668	Restrictor	1	5
2060617163	Lever	1	6
2060305393	Damper	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
2060104591	Sleeve, Bearing	1	6
2060104511	Sleeve Assembly	1	6
2060627085	Torque Tube Assembly	1	6

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CRASH FACTS DATA

NUMERICAL ORDER OF FAILURES

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
575776	Tube Assembly	2	6
643520195023	Tube Assembly	1	6
66WA400	Pump	2	6
643520556101	Pump	1	6
PT06SP2016P	Connector	2	6
SA06F14525	Connector Plug	1	6
6412520201042	Blade Assembly	2	6
MS24399D7	Reducer	2	6
643520400047	Transmission	2	6
643520400057	Transmission	1	6
MS8000J094A	Hose Assembly	1	6
645062058112	Hose	1	6
B31888	Chip Detector	1	6
6535111096041	Chip Detector	1	6
6435202090041	Plug Shaft	1	6
643520272102	Disk	1	6
643520196102	Disk	1	6
643520272101	Brake Assembly	1	6
646065010101	Antenna	1	6
21B1710A	Regulator, Voltage	1	6
MS287784	Packing	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
AN62275	Packing	1	6
645062352104	Cylinder	1	4
643520248012	Switch	1	6
21EN1212	Switch	1	6
586982	Valve	1	6
15314531	Shaft, Generator	1	6
417062	Shaft Assembly	1	6
645062100102	Release, Cargo	1	8
644561217101	Indicator	1	6
641021015016	Cover Assembly	1	6
PMF117B006A	Motor	1	6
642067483012	Door Assembly	1	6
64352015011	Coupling	1	6

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CRASH FACTS DATA

NUMERICAL ORDER OF FAILURES

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
6565211228101	Switch	5	6
6565209022115	Switch	1	6
643520248012	Switch	1	6
6565209022107	Switch	1	6
643520500042	Transmission	3	6
643520500043	Transmission	2	6
MS287788	Packing	2	6
6535111096041	Chip Detector	2	6
643520556101	Pump	1	6
646520019101	Pump	1	6
658785	Fuel Control	1	6
7392401	Fuel Control	1	6
-	Rate Gyro	1	6
28B13933A	Generator	1	6
MS203921619	Pin	1	4
642550214041	Axle	1	4
MS280341	Transmitter	1	6
ER834D121006	Tee Fitting	1	6
6570311304081	Seal Assembly Diaphragm	1	6
MS287778	Washer	1	6
95443191	Brake Disk	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
642067490117	Hinge	1	4
MS21261R404	Key, Woodruff	1	6
B2764	ID Marker	1	6
646562350063	Tube Assembly	1	6
420393	Tube Assembly	1	6
64256230066	Tube Assembly	1	6
646566051050	Tube	1	6
MS24393D16	Nipple Tube	1	6
643566400044	Gearbox	1	6
H02012	Igniter	1	6

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CRASH FACTS DATA

NUMERICAL ORDER OF FAILURES

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
200003022	Engine	7	6
200003012	Engine	4	6
MS35275213	Engine	1	6
200003018	Engine	1	6
114ES2364	Switch	6	6
114HS1123	Switch	1	6
114HS1273	Pump	4	6
114HS1309	Pump	2	6
114HS1271	Pump	1	6
114D41113	Pump, Submerged	1	6
114ES372	Transducer	4	6
114ES371	Transducer	2	6
114ES237	Transducer	1	6
31220002	Generator	4	6
31161001	Generator	1	6
22A54	Generator, Tach	1	6
114D600120	Transmission	4	3-6, 1-5
114D2209	Transmission	1	6
114D100127	Transmission	1	6
114D12009	Transmission	1	6
114D600119	Transmission	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
114H110051	Tube Assembly	3	6
114H10049	Tube Assembly	2	6
114H1102103	Tube Assembly	2	6
114H110149	Tube Assembly	1	6
F92964113	Fuel Control	2	6
1008290	Fuel Control	1	6
208015602	Filter	3	6
114HS12012	Filter	1	6
208017005	Filter Assembly	1	6
114PS2002	Actuator N ₁	2	6
114PS2052	Actuator N ₂	2	6
216035010	Actuator	2	6
114CS110418	Actuator	1	6
BB432A	Battery	2	6
MS21908D4	Elbow Tube	1	6
6768	Hose	2	6
MS8001E103C	Hose Assembly	1	6
MS28741160240	Hose Assembly	1	6
214005810	Nozzle	2	6
MS287774	Washer	2	6
MS2877710	Washer	1	6
114DS6531	Bearing	2	6
114DS5412	Bearing	1	5
M667161C	Fan, Hydraulic	2	6
MS21902D6	Nipple Tube	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL - FAILURES</u>	<u>MISHAP CLASS</u>
MS24388D16	Tee Tube	1	6
1A050	Valve	1	6
114HS5801	Valve	1	6
0112403	Valve	1	6
3A114	Valve	1	6
MS29561326	Packing	1	6
MS2877810	Packing	1	6
MS287786	Packing	1	6
MS287784	Packing	1	6
049416	Packing	1	6
114H650070	Actuating Cylinder	1	6
DE06CE1239	Connector	1	6
PP00CE2255S	Connector	1	6
213021004	Connector Assembly	1	6
DPD215634PFA95	Connector	1	6
MS3116P2255P	Connector	1	6
114120871	Connecting Link	1	4
114S2905401	Door, Access	1	6
114S164718	Door	1	4
114S164717	Door	1	6
114E20322	Resistor	1	6
114ES259	Resistor	1	6
1300243	Chip Detector	1	6
A7033WB	Chip Detector	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
MS202532600	Hinge Pin	1	6
114R1002122	Blade Assembly	1	6
219130	Impeller Fan	1	6
213022007	Manifold Assembly	1	6
SYLZ75613	Control Box	1	6
MS280341	Transmitter	1	6
230012702	Cable Assembly	1	6
AN58132	Pitot Tube	1	4
216004008	Torque Drive	1	6
114D30487	Shaft Assembly	1	6
356084575	Sensing Element	1	6
114CS172	Magnetic Brake	1	6
210003903	Disk	1	6
114ES2355	Indicator	1	6
114DS6462	Clutch Assembly	1	6
MS21044C06	Nut, Self Lock	1	6
230019401	Float	1	6
MS3575213	Screw	1	6
114HS10612	Oil Cooler	1	6

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CRASH FACTS DATA

NUMERICAL ORDER OF FAILURES

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
114D600120	Transmission	8	7-6, 1-7
114D500120	Transmission, Combining	3	6
114D62004	Transmission	1	6
114D22009	Transmission	1	6
114D100123	Transmission	1	6
114D200126	Transmission	1	6
114ES2364	Switch	5	6
114ES2354	Switch	2	6
114HS1123	Switch	2	6
230017601	Switch	2	6
26020013	Switch	1	6
31161001	Generator	4	6
22A554	Generator, Tach	3	6
31220002	Generator	3	6
32005007	Generator, Tach N ₂	1	6
22A703	Generator, Tach	1	6
114PS2052	Actuator N ₂	3	6
114PS2002	Actuator N ₁	3	6
114CS11424	Actuator	2	6
216035010	Actuator	2	6
114H660018	Actuator	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
114PS2063	Actuator	1	6
114S164717	Door	3	1-6, 2-4
717717	Fuel Control	3	6
592964113	Fuel Control	3	6
114S296616	Absorber Assembly	3	6
114ES2363	Indicator	3	6
114ES2355	Indicator	2	6
MS2877812	Packing	2	6
MS28778	Packing	2	6
MS29561239	Packing	1	6
MS287786	Packing	1	6
MS24690	Packing	1	6
MS9388032	Packing	1	6
MS2951204	Packing, Preformed	1	6
114HS1309	Pump	2	6
114HS1273	Pump	1	6
114S1271	Pump	1	6
90419	Pump	1	6
RR17510	Pump, Oil	1	6
216079004	Pump	1	6
114DS2691	Seal	2	6
114DS3472	Seal	1	6
114RS2121	Seal	1	6
114D21331	Seal	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
114ES2371	Seal	1	6
SS3121X	Seal	1	6
114H110049	Tube Assembly	2	6
114H110017	Tube Assembly	1	6
114H1100419	Tube Assembly	1	6
MS280053	Transmitter	2	6
MS280341	Transmitter	1	6
230027401	Cable Assembly	2	6
230012702	Cable Assembly	1	6
114E25701	Cable Assembly	1	6
114ES2372	Transducer	2	6
BB432A	Battery	2	6
216004008	Torque Drive	2	6
208015602	Filter	2	1-6, 1-5
208017005	Filter Assembly	1	6
114HS12016	Filter Assembly	1	6
56B25A	Bulb Assembly	2	6
H5601A6	Latch	1	4
998402120	Stud, Turnlock	1	4
MS203921C23	Pin	1	4
114S161940	Hatch Assembly	1	4
214001011	Nozzle Assembly	1	5
214112014	Nozzle Assembly	1	6
214013901	Nozzle	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
219130	Impeller Fan	1	6
21919	Impeller Fan	1	6
114S164718	Door Assembly	1	6
114S164714	Door Assembly	1	6
MS21907D8	Elbow Tube	1	6
114D30487	Shaft Assembly	1	6
114D30031	Shaft Assembly	1	6
114M10022	Vent	1	6
114H560016	Servo Cylinder	1	6
114H68003	Damper	1	6
114H59007	Dampener, Flutter	1	6
26009	Turnlock Fastener	1	6
6719372	Cooler	1	6
1300243	Chip Detector	1	6
114CS1172	Magnetic Brake	1	6
216139001	Flow Divider	1	6
114E50626	Hook Assembly	1	6
A02HS1394	Control Assembly	1	6
114DS3401	Bearing	1	6
114D30442	Washer	1	6
114HS1334	Accumulator	1	6
114DS5561	Gasket	1	6
114E207737	Relay	1	6
68119	Motor	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
114TS1065	Motor	1	6
21600602	Torque Meter	1	6
114D31025	Housing Assembly	1	6
MS27039C112	Screw	1	6
MS27371H0300	Hose Assembly	1	6
200003018	Engine	1	6
114C11755	Thrust Control	1	6
MILW5086AN20TY1	Wire, Electrical Copper	1	6
114S1604148	Former, R/H	1	6
213109003	Combuster Housing	1	6

CH-47C

CRASH FACTS DATA

NUMERICAL ORDER OF FAILURES

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
114ES2372	Transducer	14	6
114ES2371	Transducer	9	6
114ES237	Transducer	4	6
1300243	Chip Detector	10	6
A7633WB	Chip Detector	2	6
A6776W	Chip Detector	1	6
87674A	Chip Detector	1	6
114D62004	Transmission	10	8-6, 2-5
114D12009	Transmission	5	6
114D22009	Transmission	8	6-6, 2-4
114D22007	Transmission	4	6
114D52002	Transmission, Combining	6	6
114D12007	Transmission	3	6
114012005	Transmission	2	6
114D220011	Transmission	2	6
114D62003	Transmission	1	6
114D62001	Transmission	1	6
114D22008	Transmission	1	6
114P220013	Transmission, AFT	1	6
31161001	Generator	10	6
22A554	Generator, Tach	7	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
31220002	Generator	2	6
32005	Generator, Tach	1	6
32005007	Generator, Tach	1	6
MS280053	Transmitter	9	6
330001A1	Transmitter	2	6
MS280341	Transmitter	1	6
181704	Transmitter	1	6
114S164717	Door	8	3-6, 5-4
114S164718	Door	2	1-6, 1-4
1145164725	Door	1	6
114HS1309	Pump	6	6
114HS1273	Pump	5	6
RR17510A	Pump	1	6
MS287788	Packing	6	6
MS287786	Packing	4	6
MS29561119	Packing	1	6
MS28775011	Packing	1	6
MS2877816	Packing	1	6
MS28775124	Packing	1	6
STD3019E49	Packing	1	6
MS32481016	Packing	1	6
MS17413032	Packing	1	6
MS2877810	Packing	1	6
MS28775006	Packing	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
MS2951202	Packing	1	6
114PS2063	Actuator N ₁	6	6
114CS11424	Actuator	3	6
114CS11426	Actuator	2	6
114PS2052	Actuator N ₂	1	6
114CS10025	Actuator	1	6
114ES2354	Switch	6	6
114ES2364	Switch	5	6
230017601	Switch	2	6
A21810104300	Switch	1	6
MS2452323	Switch	1	6
X862C	Switch	1	6
114DS1491	Seal	5	6
230038701	Seal	3	6
114DS2631	Seal	1	6
114D21331	Seal	1	6
13001S1	Seal	1	6
355603575	Sensing Element	5	6
219130	Impeller Fan	4	6
114ES2831	Box Assembly	5	6
114E207741	Box Assembly, Relay	1	6
56B25A	Bulb Assembly	4	6
M6671B1C	Fan, Hydraulic	4	6
210124204	Blade	4	2-6, 1-4, 1-1

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
114R150233	Blade	1	5
114R150248	Blade Assembly	1	6
114PS4542	Valve, Check	3	1-4, 2-2
3A0114	Valve	2	6
114PS4561	Valve	1	6
114HS1241	Valve, Flow	1	6
114HS1142	Valve, Linear	1	6
114H1221	Valve	1	6
114H1162	Valve	1	6
26C26608	Valve, Pressure	1	6
114HS1031	Valve, Directional	1	6
114HS1065	Motor	3	6
219130	Motor	1	6
BB432A	Battery	3	2-6, 1-5
114ES2591	Resistor	3	6
J91045	Mount	3	6
216095014	Manifold Assembly	3	2-6, 1-5
114H41014	Manifold Assembly	1	6
216095004	Manifold	1	5
553232	Bellows	2	6
573039	Rod	2	6
375516	Coupling Half	2	1-6, 1-5
114HS2002	Starter	2	6
H5601AE	Latch	2	4

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
H5200K950	Latch	1	4
H33417	Latch	1	6
544334	Shim	2	6
114D20652	Shim	1	1
114C12508	Spring	2	6
114C12761	Spring	1	6
717717	Fuel Control	2	6
7392224	Fuel Control	1	6
592964113	Fuel Control	1	6
2614S011	Fuel Control	1	6
114P20492	Link Assembly	2	6
114S26151	Link Assembly	1	4
114L23292	Link, Drag	1	4
152B55	Indicator, EGT	2	6
—	Indicator, N ₁	1	6
114ES2363	Indicator	1	6
114S297186	Absorber Assembly	2	6
114S297172	Absorber Assembly	1	6
114S295019	Absorber Assembly	1	6
114D2811	Bearing	2	6
23000102	Bearing	2	6
RF4	Bearing, Rod End	1	6
114DS5711	Bearing	1	6
2300037	Bearing, No. 4	2	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
114DS3401	Bearing	1	6
230003401	Bearing, No. 3	1	6
114D32501	Bearing	1	6
114DS2811	Bearing	1	6
114ES24913	Panel, Generator	2	6
50185010	Panel	1	6
MS21911D6	Tee Tube/Fitting	2	6
MS21908D4	Elbow Tube	2	6
MS21908012	Elbow Tube	1	6
MS2190808	Elbow Tube	1	6
MS208224	Elbow	1	6
ER833D1610	Elbow	1	6
114H210087	Tube Assembly	2	6
114E404829	Tube Assembly	1	6
114D404059	Tube Assembly	1	6
114H1100127	Tube Assembly	1	6
114H3104183	Tube Assembly	1	6
114H3104137	Tube Assembly	1	6
114H1102214	Tube Assembly	1	6
114H1102121	Tube Assembly	1	6
114H110017	Tube Assembly	1	6
114H11003	Tube Assembly	1	6
114C23101	Bell Crank Assembly	2	6
SY1Z75613	Control Box	2	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
114D32411	Shaft, Quill	2	7
114D21052	Shaft, Quill	1	6
114D52443	Gear, Bevel	2	1-5, 1-2
114D62441	Gear, Bevel	1	4
114D20911	Gear, Bevel	1	6
114D21781	Gear, Spur	1	6
203007006	Gear Assembly	1	6
214114016	Disk Assembly	1	3
214005032	Disk Assembly	1	6
214004040	Disk Assembly	1	6
214116006	Disk	1	4
114L24103	Power Steering	1	4
114L23221U	Axle	1	4
1145160771	Lock, Door	1	4
114S392042	Cover, Access	1	4
210006023	Vane Assembly	1	5
416187	Cap Assembly	1	6
1300363	Exciter	1	6
114D52462	Clutch	1	6
X133646REVD	Clutch	1	6
114CS1172	Brake, Magnetic	1	6
114PS4581	Tank Assembly	1	6
114R21971	Pin	1	6
PW114C49144	Work Platform	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
114R20123	Droop Stop	1	6
MILW5086AN20TY1	Wire, Electrical Copper	1	6
B14GAA	Armature, Relay	1	6
114E50626	Hook Assembly	1	6
216004008	Torque Drive	1	6
230027401	Cable Assembly	1	6
230012702	Cable Assembly	1	6
NAS139517	Bolt	1	6
114D21624	Bolt	1	6
NAS1189C3A21	Screw	1	6
MS27039C112	Screw	1	6
114PS4335	Gasket	1	6
049170	Gasket	1	6
114H560010	Servo Cylinder	1	6
114H66011	Servo Cylinder	1	6
214001010	Nozzle	1	6
114HS10612	Oil Cooler	1	6
114H30281	Cooler Assembly	1	6
208015602	Filter	1	6
208017005	Filter	1	6
114HS12015	Filter	1	6
A86135	Fan, Hydraulic	1	6
220007023	Torque Meter Kit	1	6
216006002	Torque Meter Kit	1	6

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
AN6289D4	Nut	1	6
BACN10TR8	Nut	1	6
114E303047	SAS Amplifier	1	6
114E303049	SAS Amplifier	1	6
MS2877710	Washer	1	6
MS287778	Washer	1	6
MS87028M0280C	Hose Assembly	1	6
MS27371H0300	Hose Assembly	1	6
MS80016224C	Hose Assembly	1	6
230013401	Hose Assembly	1	6
545016001	Probe, Sensor	1	6
114HS1283	Motor, Pump	1	6
114HS1293	Motor, Hydraulic	1	6
MS21915D108	Adapter Tube	1	6
MS21924D4	Nipple Tube	1	6
MS24392D4	Fitting	1	6
MS21907D6	Fitting	1	6
114R15433	Socket Assembly	1	6
GS9165	Housing Assembly	1	6
MS3548922	Grommet	1	6
CN998ASN43	Gyro	1	6
51250010	Regulator, Voltage	1	6
14832	Actuator Piston	1	6

JCH-47C

CRASH FACTS DATA

NUMERICAL ORDER OF FAILURES

<u>PART #</u>	<u>NOMENCLATURE</u>	<u>TOTAL FAILURES</u>	<u>MISHAP CLASS</u>
114D22008	Transmission	1	6
114D62004	Transmission	1	6
114D22007	Transmission	1	6
230038701	Seal	1	6
114DS2691	Seal	1	6
114C12557	SAS	1	6
114PS46837	Hose Assembly	1	6
114HS1283	Motor, Pump	1	6
114HS1065	Motor	1	6
114PS4541	Valve, Check	1	6
31161001	Generator	1	6
32005007	Generator, Tach	1	6
114CS11426	Actuator	1	6
216095014	Manifold Assembly	1	6
A21810106603	Switch	1	6
114ES2831	Box Assembly	1	6
208000013	Gearbox	1	6
114S16477	Door	1	4
X133646REVD	Clutch	1	6
210124204	Blade	1	6
130023	Chip Detector	1	6
216139001	Flow Divider	1	6
114D3076	Shaft Assembly	1	6

APPENDIX C

APPENDIX C

AIRCRAFT ACCIDENT - damage to one or more aircraft which occurs between the time the engine(s) is (are) started for the purpose of commencing flight until the time the aircraft comes to rest with all engines and propellers or rotors are stopped.

AIRCRAFT MISHAP - any accident or occurrences which may or may not result in aircraft damage.

CLASS 1 - Major Accident (Total Loss) - an aircraft accident is classified major, total loss, when the aircraft is destroyed and determined uneconomically repairable. The damage sustained is equal to or in excess of the criteria cited in Table 2-1 of AR 385-40; or damage in which a major component is destroyed/damaged beyond economical repair at any level of maintenance.

CLASS 2 - Major Accident (Substantial Damage) - an aircraft accident is classified major, substantial damage, when the aircraft is repairable, and the total direct man-hours required to remove, repair, and replace damaged component(s) equal or exceed the man-hours set for that particular type and model of aircraft in Table 2-2 of AR 385-40.

- CLASS 3 - Minor Accident - damage which is less than major damage, but is equal to or exceeds the criteria for minor damage cited in Table 2-2 of AR 385-40.
- CLASS 4 - Incident - aircraft damage which is less than the criteria for minor damage cited in Table 2-2 of AR 385-40.
- CLASS 5 - Forced Landing - a landing necessitated by failure or apparent impending failure of engines systems or components which makes continued flight impossible, and which did not result in damage.
- CLASS 6 - Precautionary Landing - a landing necessitated by failure of apparent impending failure of engines, systems of components which makes continued flight inadvisable, and which did not result in damage.
- CLASS 7 - Human Factors
- CLASS 8 - Ground Incident

HELICOPTER FLEET UH-1

TOTAL NO. OF FAILURES RECORDED-4483 JUNE 1979

MISHAP CLASS	FUNCTIONAL GROUP											TOTAL		
	01	02	03	04	06	08	09	10	11	12	17		19	30
1			15	11	1	1								28
2			17	2										19
3		1	4	2	1									8
4	15	3	18	18				1		3		2		60
5			187	23		1	4	2				1		218
6	23	7	1111	825	814	218	593	321	43	154	4	25	4	4142
7			2	3										5
8			1				1				1			3
TOTAL	38	11	1355	884	816	220	598	324	43	157	5	28	4	4483

SOURCE OF DATA: CRASH FACTS

HELICOPTER FLEET AH-1G

TOTAL NO. OF FAILURES RECORDED-852 JUNE 1979

MISHAP CLASS	FUNCTIONAL GROUP													TOTAL
	01	02	03	04	06	08	09	10	11	12	17	19	30	
1			2	2	5				1					10
2			5	1	1		2		1					10
3				1		1								5
4	9	11	9	2	4								2	37
5			36	9	2	1			1					49
6	6	3	230	156	162	19	77	24	30	19			7	733
7													1	3
8			2										3	5
TOTAL	15	19	284	171	174	21	79	24	33	19			13	852

SOURCE OF DATA: CRASH FACTS

HELICOPTER FLEET OH-6A

TOTAL NO. OF FAILURES RECORDED-121 JUNE 1979

MISHAP CLASS	FUNCTIONAL GROUP												TOTAL	
	01	02	03	04	06	08	09	10	11	12	17	19		30
1						1	1							2
2			1	1										2
3														
4	2			1				1						4
5			11					1						12
6	1	1	37	38		5	12	4	2	1				101
7														
8														
TOTAL	3	1	49	40		6	13	6	2	1				121

SOURCE OF DATA: CRASH FACTS

HELICOPTER FLEET OH-58

TOTAL NO. OF FAILURES RECORDED-1248 JUNE 5, 1979

MISHAP CLASS	FUNCTIONAL GROUP													TOTAL
	01	02	03	04	06	08	09	10	11	12	17	19	30	
1			3	3										6
2			9	2			1							12
3			1											1
4	4	1	7	3			2							17
5			116	2				1						119
6	9		307	356	227	35	114	18	17	9		1		1093
7														
8														
TOTAL	13	1	443	366	227	35	117	19	17	9		1		1248

SOURCE OF DATA: CRASH FACTS

HELICOPTER FLEET CH-54

TOTAL NO. OF FAILURES RECORDED-71 JUNE 1979

MISHAP CLASS	FUNCTIONAL GROUP										TOTAL			
	01	02	03	04	06	08	09	10	11	12		17	19	30
1														
2														
3														
4	1	1		1	1						1			5
5														
6	1	1	7	34	16	1	3		1			1		65
7														
8											1			1
TOTAL	2	2	7	35	17	1	3		1		2	1		71

SOURCE OF DATA: CRASH FACTS

HELICOPTER FLEET CH-47

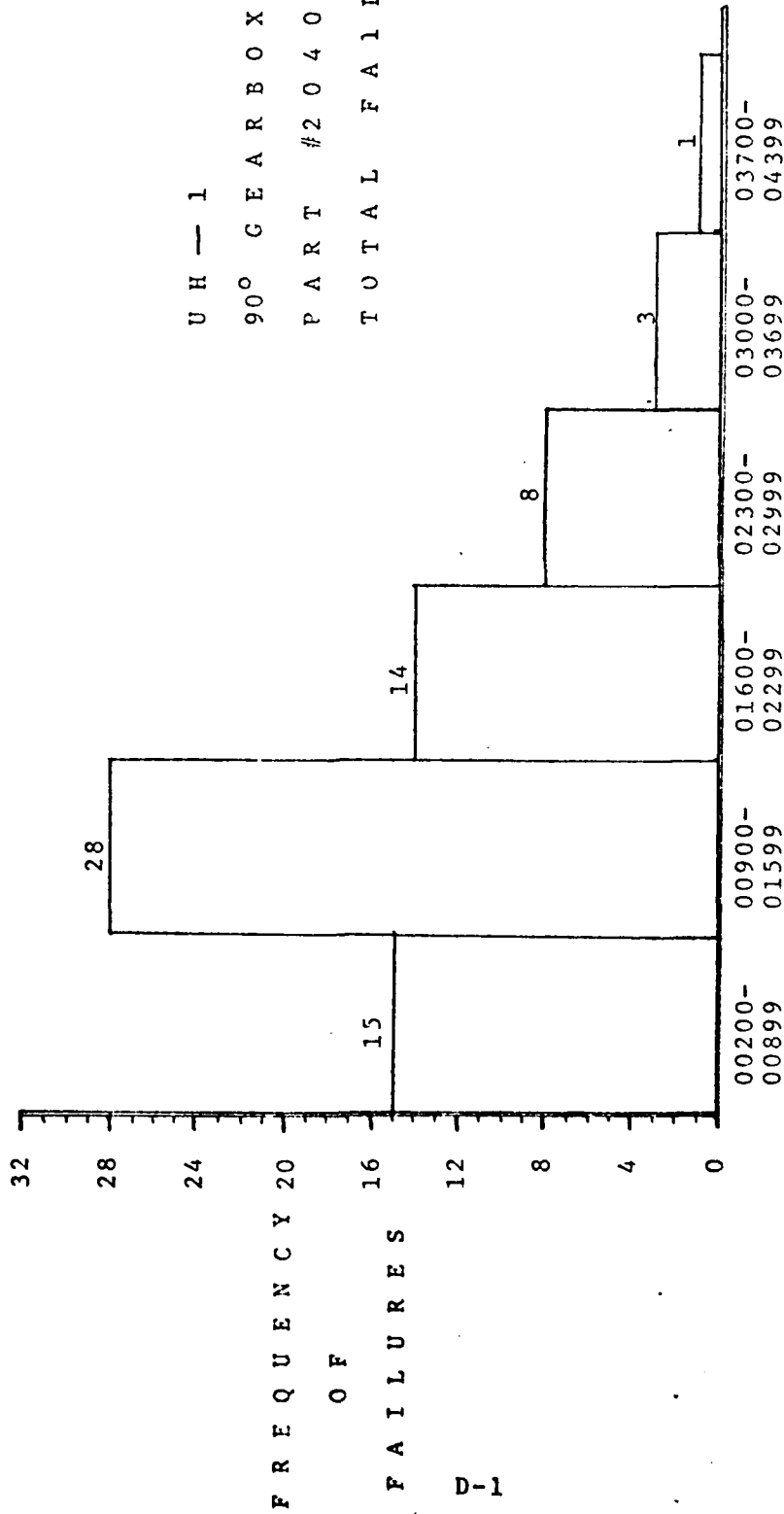
TOTAL NO. OF FAILURES RECORDED-620 JUNE 1979

MISHAP CLASS	FUNCTIONAL GROUP										TOTAL			
	01	02	03	04	06	08	09	10	11	12		17	19	30
1			1	1										2
2								2						2
3			1											1
4	20	4	2	3		1		1						31
5			7	3			1							11
6	17	1	154	150	132	32	36	10	22	14	2		1	571
7				2										2
8														
TOTAL	37	5	165	159	132	33	37	13	22	14	2		1	620

SOURCE OF DATA: CRASH FACTS

APPENDIX D

UH - 1
 90° GEARBOX
 PART #20404001213
 TOTAL FAILURES - 69



APPENDIX E

JULY 1 79

HELICOPTER FLEET CH-47
 MEDIAN COSTS BY MISHAP CLASS
 BY FUNCTIONAL GROUP

MISHAP CLASS	FUNCTIONAL GROUP												
	01	02	03	04	06	08	09	10	11	12	17	19	30
1			2,026,200										
2													
3			184,879	48,225									
4	2,491	9,915	14,500	157,528 3,223,625		8,472	145	767			890		
5			0	0			0						
6	0	0	0	0	0	0	0	0	0	0		0	
7													
8													

SOURCE OF DATA: CRASH FACTS