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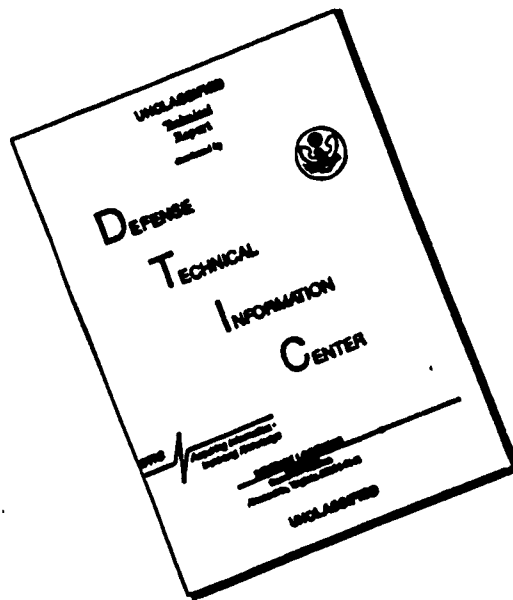
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Technology Insertion (TI)/Industrial Process Improvement (IPI) Data Base Documentation Book Volume 9 for SA-ALC/AMTPSI (Starter Repair). This document contains detailed information about layouts equipment and processes for this RCC (Resource Control Center).

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TECHNOLOGY INSERTION ENGINEERING SERVICES

PROCESS CHARACTERIZATION

TASK ORDER NO. 1

DATA DOCUMENTATION BOOK FOR RCC MATPSI

SA - ALC

1989

1.0 IDENTIFICATION OF RCC MATPSI

RCC MATPSI HAS BEEN IDENTIFIED
BY STATEMENT OF WORK OF CONTRACT
F33600-88-D-0567 FOR PROCESS
CHARACTERIZATION.

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GENERAL INFORMATION

THE RESOURCE CONTROL CENTER (RCC) MATPSI AT SAN ANTONIO AIR LOGISTIC CENTER IS LOCATED IN BUILDING 329. THIS RCC HAS THREE DISTINCT FUNCTIONS. ONE IS THE DISASSEMBLY OF CERTAIN AIRCRAFT STARTERS AND F-15 AND F-16 END ITEMS, SECOND IS THE CLEANING OF THE PARTS FROM THESE END ITEMS AFTER THEY ARE DISASSEMBLED (PLUS PARTS FROM THE F-15 AND F-16 ENGINES) AND LASTLY, THE INSPECTION OF THE CLEANED PARTS. SOME PARTS ARE SENT DIRECT TO THE PARTS POOL WITHOUT CLEANING (NUTS, BOLTS, SPACERS, ETC.), SOME PARTS ARE SENT THROUGH FLORESCENT PENETRENT INSPECTION PRIOR TO INSPECTION AND OTHER PARTS GO DIRECT FROM CLEANING TO INSPECTION.

* THE INSPECTION FUNCTION IS LOCATED IN A FREE STANDING MODULE WHICH IS LOCATED INSIDE THE NORTH END OF BUILDING 329 AT KELLY AFB, TEXAS. THE MODULE IS AIR CONDITIONED WITH TEMPERATURE AND

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HUMIDITY MAINTAINED AT APPROXIMATELY 72 DEGREES
FAHRENHEIT AND 68 PER CENT RESPECTIVELY DUE TO
THE PRECISIONAL MEASUREMENT EQUIPMENT UTILIZED
IN THE SHOP. ALL PARTS BROUGHT INTO THE SHOP FOR
INSPECTION ARE HELD FOR 24 HOURS PRIOR TO COMMENCING
ANY DIMENSIONAL INSPECTION. THE PURPOSE IS TO ENSURE
THE TEMPERATURE OF THE PARTS HAS STABILIZED AT THE
ROOM TEMPERATURE SO AS TO ENSURE ACCURATE DIMENSIONAL
MEASUREMENTS. THE ROOM HAS ASPHALT TILE FLOOR
COVERING AND IS KEPT NEAT AND CLEAN AT ALL TIMES.
FLUORESCENT CEILING FIXTURES PROVIDE EXCELLENT
LIGHTING. THE WORK ENVIRONMENT IS GOOD AND THE
EQUIPMENT IS FIRST CLASS.

- * THE CLEANING FUNCTION IS LOCATED IN THE NORTHEAST
END OF BUILDING 329. THE PHYSICAL AREA IS APPROXIMATELY
18 FEET WIDE BY 300 FEET IN LENGTH AND IS NOT AN
AIRCONDITIONED AREA. WORKING CONDITIONS ARE POOR
AS THE OUTDOOR TEMPERATURE IN THE SUMMER IS
AGGRAVATED BY THE OIL LIQUIDS IN THE CLEANING
VATS AND THEIR ATTENDANT ODORS.

IN ADDITION, ALL WORKERS MUST WEAR RUBBER GLOVES AND SOFT FLUIS HEAVY APRONS WHICH INCREASES THE DISCOMFORT.

PARTS REQUIRING CLEANING ARE BROUGHT IN TO THE CLEANING AREA IN PLASTIC BAGS OR STACKED ON FLOOR. EACH BAGLET CONTAINS SPECIFIC TYPE METAL PARTS AS THAT DICTATES THE CLEANING METHOD TO BE UTILIZED. WORK CONTROL DOCUMENTS (WCD'S) ARE NOT USED FOR THE bulk OF ITEMS REQUIRING CLEANING AS IT WOULD BE VERY DIFFICULT AND COSTLY IN AN EFFORT TO KEEP EACH DOCUMENT WITH ITS SPECIFIC PARTS. WCD'S ARE ASSIGNED TO EACH ITEM WHEN IT PASSES THROUGH THE FLORESCENT PENETRANT INSPECTION (FPI) STATION AFTER CLEANING SO THE DOCUMENT CAN RECEIVE THE INSPECTOR'S STAMP.

* THE DISASSEMBLY FUNCTION IS LOCATED IN AN AIR CONDITIONED FREE STANDING FREE STANDING MODULE CONSTRUCTED INSIDE OF THE NORTHEAST CORNER OF BUILDING 329. THE NORTHERN END OF THIS MODULE IS WHERE GAS TURBINE ENGINES ARE DISASSEMBLED WHILE THE SOUTHERN PORTION IS DISASSEMBLY FOR

STARTERS AND F-5 AND F-16 END STEMS.

THE AREA IS NOW BEING REMODELED SO A BASKET CONVEYOR SYSTEM CAN BE INSTALLED TO MOVE DISASSEMBLED PARTS FROM INDIVIDUAL WORK STATIONS TO THE CLEANING AREA WHICH IS LOCATED JUST OUTSIDE THE MODULE. WHEN THE RENOVATION IS COMPLETE, THERE WILL BE OVER THIRTY DISASSEMBLY WORKSTATIONS. THE FLOORING IS OF ASPHALT TILES WITH RECESSED RECESSED OVERHEAD LIGHTING. THE WALL SURFACE ARE OF METAL WHICH CAN RESULT IN A MOIST ENVIRONMENT. IN ALL, WORKING CONDITIONS ARE VERY GOOD.

A TYPICAL WORKSTATION IN DISASSEMBLY CONSISTS OF A WORKBENCH, A MOUNTING STAND OR FIXTURE FOR THE ITEM TO BE DISASSEMBLED, AND A NEARBY CABINET FOR STORED SPECIAL TOOLS.

2.1 FACILITY LAYOUT

BUILDING 329 IS OVER SIXTY YEARS OLD AND WAS ORIGINALLY BUILT FOR DEPOT MAINTENANCE ON GASOLINE FUELED RADIAL AIRCRAFT ENGINES. THE BUILDING IS IN GOOD PHYSICAL SHAPE AND FREE STANDING AIR CONDITIONED MODULES HAVE BEEN CONSTRUCTED WITHIN THE BUILDING FOR OPERATIONS SUCH AS OFFICES, DISASSEMBLY, REPAIR, AND INSPECTION OF VARIOUS PARTS. DUE TO THESE FREE STANDING MODULES, WORKING CONDITIONS ARE EXCELLENT FOR ALL FUNCTIONS OF MATSUI EXCEPT FOR THE PARTS CLEANING FUNCTION. THIS EFFORT IS LOCATED IN AN OLD SECTION OF BUILDING 329 AND IS RATHER OPEN AND EXPOSED TO OUTDOORS TEMPERATURES.

THE INSPECTION FUNCTION IS LOCATED IN A FREESTANDING MODULE WHICH LOCATED INSIDE THE NORTH END OF BUILDING 329.

THE ROOM HAS THREE INSPECTION DISTINCTION LINES BASED ON THE THREE BASIC TYPES OF ITEMS INSPECTED. ONE IS FOR GAS TURBINE ENGINES (GTE), ONE IS FOR AIRCRAFT STARTERS AND THIRD IS FOR F 15-16 PARTS.

PARTS ARE DELIVERED TO THE INSPECTION MODULE BY TWO METHODS. FIRST, A DOUBLE DECKER COLLIER CONVEYOR SYSTEM ENTERS THE MODULE FROM THE CLEANING AND FLORESCENT PENETRANT WORK AREA. THE CONVEYOR DIVIDES INTO THREE LINES INSIDE THE MODULE WITH EACH OF THE THREE CONVEYOR LINES PASSING THROUGH THE MIDDLE OF EACH OF THE THREE INSPECTION LINES, THEREBY CREATING A TOTAL OF SIX INSPECTION LINES. EACH OF THE SIX INSPECTION LINES HAS SIX TO EIGHT INSPECTION STATIONS.

- * THE CLEANING FUNCTION IS LOCATED IN THE NORTHEAST END OF BUILDING 329. THE PHYSICAL AREA IS APPROXIMATELY 18 FEET WIDE BY 300 FEET IN LENGTH. THE CLEANING FUNCTION IS GOING TO BE COMPLETELY REDONE WITHIN THE NEXT FEW MONTHS. THE SAME AREA WILL BE UTILIZED BUT NEW EQUIPMENT WILL BE INSTALLED AND NEW FLOOR LAYOUT WILL BE IMPLEMENTED.

* THE DISASSEMBLY FUNCTION IS LOCATED IN AN AIR CONDITIONED FREE STANDING MODULE CONSTRUCTED INSIDE OF THE NORTHEAST CORNER OF BUILDING 529.

THE AREA IS NOW BEING REMODELED SO A BASKET CONVEYOR SYSTEM CAN BE INSTALLED TO MOVE DISASSEMBLED PARTS FROM INDIVIDUAL WORK STATIONS TO THE CLEANING AREA WHICH IS LOCATED JUST OUTSIDE THE MODULE. WHEN THE RENOVATION IS COMPLETE, THERE WILL BE OVER THIRTY DISASSEMBLY WORKSTATIONS. A TYPICAL WORKSTATION IN DISASSEMBLY CONSISTS OF A WORKBENCH, A MOUNTING STAND OR FIXTURE FOR THE ITEMS TO BE DISASSEMBLED AND A NEARBY CABINET FOR STORED SPECIAL TOOLS.

2.2 EQUIPMENT

THE EQUIPMENT USED BY MATPSI FOR THE FUNCTIONS PERFORMED BY THEM IS LISTED ON THE FOLLOWING PAGES. THE CLEANING EQUIPMENT IS CODED "CLN". THE INSPECTION EQUIPMENT IS CODED "NDI". THE DISASSEMBLY EQUIPMENT IS CODED AS FOLLOWS :

F15 AMAD = "A"

F15 JFS = "G"

F15 CGB = "L"

F16 JFS = "M"

F16 ADG = "I"

Conventional Starters = "AB"

EQUIPMENT CROSS REFERENCE LIST

DATE 05-31-89

PCN NO. 08005A & 08004A

ALC SA

PART NAME ANAD

RCC MATPSI

OPERATION DISASSEMBLY LH & RH

PAGE 1 OF 1

EQUIPMENT CODE	TOOL/EQUIPMENT NUMBER	NAME	QUANTITY	COMMENTS
A-1	287951-1	SPLINED TORQUE WRENCH ADAPTER	2	
A-2	287959-1	SPLINED TORQUE WRENCH ADAPTER	2	
A-3	287961-1	SPLINED TORQUE WRENCH ADAPTER	2	
A-4	287963-1	TORQUE WRENCH ADAPTER	2	
A-6	287966-2	SPLINED TORQUE WRENCH ADAPTER	1	
A-7	289602-1	SEAL DRIVER	1	
A-8	289639-2	SHAFT ASSEMBLY HOLDING WRENCH	1	
A-10	291396-9	PULLER ADAPTER	1	
A-11	291397-5	BEARING REMOVAL PLATE	1	
A-12	291397-6	BEARING REMOVER	2	
A-14	291399-1	MAINTENANCE STAND ADAPTER	3	
A-15	291400-1	MAINTENANCE STAND	3	
A-16	291426-1	SHAFT REMOVAL	1	
A-22	291427-1	SHAFT REMOVAL	1	
A-23	291429-1	BEARING REMOVAL	1	
A-24	291433-2	FLANGE PULLER	1	
A-28	291869-1	TUBE PLIERS	1	
A-29	291911-1	SEAL PULLER	1	
A-30	291917-1	TORQUE WRENCH ADAPTER	1	
A-31	291918-1	SEAL WRENCH	2	
A-32	291919-1	SEAL DRIVER	2	
A-33	291959-1	SPANNER WRENCH	1	
A-34	293043-1	TORQUE WRENCH ADAPTER	2	
A-35	293428-1	LOADING FIXTURE	1	
A-37	293785-1	SEAL DRIVER	1	
A-38	296806-1	PULL SET	3	
A-40	8219970	PULLER	2	
A-41	8220010	HOLD DOWN	1	
A-42	8517914	VALVE REMOVER	2	
A-43	LP2059-10	ADAPTER	1	
A-44	LP2059-7	SNAP RING PLIERS	1	
A-45	LP2059-11	PULLER & HANDLER	1	
A-46	4020C	BEARING PULLER	1	

EQUIPMENT CROSS REFERENCE LIST

DATE 05-31-89

PCN NO. 08006A

ALC SA

PART NAME F15 JFS

RCC MATPSI

OPERATION DISASSEMBLY

PAGE 1 OF

EQUIPMENT CODE	TOOL/EQUIPMENT NUMBER	NAME	QUANTITY	COMMENTS
6-12	294549-1	PULLER SET	1	
6-14	289671-1	HOLDER, GEARSHAFT SPLINED	1	
6-15	289687-1	HOLDER, TURBINE WHEEL	1	
6-16	289689-1	HOLDER, WHEEL PRESS	1	
6-18	289691-1	ADAPTER, TORQUE WRENCH, SPLINED	1	
6-19	289704-1	HOLDER, TURBINE WHEEL REMOVAL	2	
6-20	209706-2	PULLER, MECHANICAL BEARING AND SEAL	1	
6-21	289707-1	HOLDER, ROTATING ASSEMBLY	1	
6-22	289708-2	FIXTURE, SHAFT STRETCHING	1	
6-23	289712-1	PULLER, MECHANICAL BEARING	1	
6-24	289714-1	ADAPTER, TORQUE WRENCH	1	
6-25	289719-1	PULLER, MECHANICAL COUPLING	1	
6-27	289727-1	HOLDER, NUT TORQUING	1	
6-28	289728-1	ADAPTER, NUT TORQUING	1	
6-30	289733-1	ADAPTER, TORQUE WRENCH, SPLINED	1	
6-32	291400-1	MAINTENANCE STAND	3	
6-33	291392-1	ADAPTER, MAINTENANCE STAND	3	
6-34	291461-1	DRIVER, BEARING	1	
6-35	291471-1	ADAPTER, TORQUE WRENCH	1	
6-38	291472-1	HOLDER, SPLINED, GEAR	1	
6-40	291482-1	DRIVER, BEARING AND GEAR	1	
6-44	291490-1	HOLDER, BEARING PRESSING	1	
6-54	293312-1	HOLDER, DIFFUSER, NUT TORQUING	1	
6-60	8221114-10	ADAPTER, TORQUE WRENCH	2	
6-64	8221170	DRIFT, WHEEL REMOVAL	1	
6-98	680170008-100?	BORESCOPE	1	

EQUIPMENT CROSS REFERENCE LIST

DATE 06-03-89

PCN NO. 08007A

ALC SA

PART NAME CGB

RCC MATPSI

OPERATION DISASSEMBLY

PAGE 1 OF

EQUIPMENT CODE	TOOL/EQUIPMENT NUMBER	NAME	QUANTITY	COMMENTS
L-1	291400-1	ROLL OVER STAND	3	ASSEMBLY & DISASSEMB.
L-2	291392-1	STAND ADAPTER	3	ASSEMBLY & DISASSEMB.
L-3	293158-1	CLUTCH HOLDER	1	ASSEMBLY & DISASSEMB.
L-4	X8871138	TUBE PULLER	1	
L-5	291907-1	ADAPTER PULLER	1	
L-6	293157-1	HOLDER	1	ASSEMBLY & DISASSEMB.
L-7	X720A	SPECIAL WRENCH	1	ASSEMBLY & DISASSEMB.
L-8	291868-1	FAN PULLER	1	
L-9	291432-1	GEAR PULLER	1	
L-10	291656-1	PULLER	1	
L-11	291432-1	GEAR PULLER	2	
L-12	8319624	GEAR HOLDER	1	
L-13	291396-7	PULLER	1	
L-14	291446-1	PLATE PULLER	1	
L-15	4020C	BEARING PULLER	1	
L-16	291396-8	ADAPTER	1	
L-17	8140811	DRIFT	2	ASSEMBLY & DISASSEMB.
L-18	8140812	BEARING PULLER	1	
L-19	291440-1	HOLDER	2	
L-20	291439-1	ADAPTER	2	
L-21	8140810	DRIFT	1	
L-22	8140808	GEAR HOLDER	1	
L-23	8319608	HOLDER FIXTURE	1	ASSEMBLY & DISASSEMB.
L-24	289684-1	PULLER	2	
L-25	8140815	BEARING PULLER	2	
L-26	291397-3	PLATE	1	
L-27	291396-3	PLATE	1	
L-28	289607-1	SPANNER WRENCH	2	ASSEMBLY & DISASSEMB.
L-29	291691-1	PULLER	2	
L-30	291194-1	SEAL DRIVER	2	
L-31	291421-1	TORQUE WRENCH/ADAPTER	2	
L-32	289666-1	BUSHING DRIVER	2	
L-33	291418-1	GEAR SHAFT DRIVER	1	
L-34	291412-1	SHAFT HOLDER	2	
L-35	291413-1	SHAFT DRIVER	1	
L-36	289657	ADAPTER	2	
L-37	289031-1	WRENCH ADAPTER	2	ASSEMBLY & DISASSEMB.
L-38	8140813	BEARING PULLER	2	
L-39	289681-1	SPRING COMPRESSOR	2	
L-40	291868	BEARING PULLER	1	
L-41	291890-1	TUBE PULLER	2	
L-95	595A	COLOR CHART	1	
L-96	8140809	DRIFT BEARING	1	

EQUIPMENT CROSS REFERENCE LIST

DATE 05-31-89

PCN NO. 13096A

ALC SA

PART NAME F16 JET FUEL STARTER

RCC MATPSI

OPERATION DISASSEMBLY

PAGE 1 OF

EQUIPMENT CODE	TOOL/EQUIPMENT NUMBER	NAME	QUANTITY	COMMENTS
M-1	ST91125	COMBUSTOR ASSY. PULLER	1	
M-2	ST93466	ADAPTER PULLER	1	
M-3	ST70137	HOLDING FIXTURE	1	
M-4	ST70230	SPANNER WRENCH	2	
M-5	ST70107	BEARING PULLER	2	
M-6	ST70109	BEARING PULLER	2	
M-7	ST92619	HOLDING FIXTURE	1	
M-8	ST90112	EXTRACTOR SUPPORT	1	
M-9	160005-100	SLAVE SHAFT	2	
M-10	ST90110	DRIVER	2	
M-11	8621514	STAND. WOODEN	1	
M-12	X8621139	ADAPTER	1	
X-8	ON ORDER	ICE BOX	1	
X-2	ON ORDER	OVEN	1	

EQUIPMENT CROSS REFERENCE LIST

DATE 05-31-89

PCN NO. 12712 A

ALC SA

PART NAME ACCESSORY DRIVE GEARBOX

RCC MATPSI

OPERATION DISASSEMBLY

PAGE 1 OF

EQUIPMENT CODE	TOOL/EQUIPMENT NUMBER	NAME	QUANTITY	COMME
J-1	AKS-31466	ASSEMBLY TOOL	1	
J-2	AKS-31957	DRIVER	1	
J-3	BHS-28161	SPLIT BUSHING	2	
J-4	BHS-28163	SPLIT BUSHING	2	
J-5	BHS-28164	SPLIT BUSHING	2	
J-6	BHS-28165	SPLIT BUSHING	2	
J-7	BHS-28168	SPLIT BUSHING	2	
J-8	BHS-28169	SPLIT BUSHING	2	
J-9	BHS-28170	SPLIT BUSHING	2	
J-10	BHS-31243	SPLIT BUSHING	1	
J-11	BHS-33185	SPLIT BUSHING	2	
J-12	BHS-33187	SPLIT BUSHING	2	
J-13	BHS-33188	SPLIT BUSHING	3	
J-14	BHS-33189	SPLIT BUSHING	2	
J-15	DJS-27669	DRIVER	1	
J-16	DJS-28307	DRIVER	4	
J-17	DJS-29062	DRIVER	1	
J-18	DJS-30718	DRIVER	1	
J-19	DJS-33387	DRIVER	2	
J-20	DJS-33388	DRIVER	1	
J-21	DJS-33389	DRIVER	1	
J-22	DJS-33391	DRIVER	2	
J-23	FDS-27580	HOLDING FIXTURE	2	
J-24	FDS-28439	HOLDING FIXTURE	1	
J-25	FDS-28440	HOLDING FIXTURE	2	
J-27	PBS-27955	SHAFT PULLER	1	
J-29	PWS-27074	GEAR PULLER	2	
J-30	PWS-28167	GEAR PULLER	1	
J-31	PWS-29243	GEAR PULLER	2	
J-32	PWS-31845	BEARING PULLER	2	
J-33	PWS-31846	BEARING PULLER	2	
J-34	PWS-31847	BEARING PULLER	2	
J-35	PWS-34211	HOLDER	2	
J-36	PWS-35733	PULLER	2	
J-37	PXS-9210	BEARING PULLER	2	
J-38	WIS-27062	SPANNER WRENCH	3	
J-39	5401-30393	ROLL OVER STAND	3	
J-40	6SV-86275	HOLDER	1	
J-41	6SV-87457	HOLDER	2	
J-42	8621089	PULLER	2	
J-43	8621011	PULLER	2	
J-44	8620951	DRIVER	2	
J-45	851792-1	PULLER	2	
J-46	291869-1	INSERT PLIERS	1	
J-47	PBS-32301	PULLER	2	
J-48	8621136	PULLER	2	
J-49	8620953	BEARING NEST	2	
J-50	8620984	DRIVER	2	

J-51	8517881	SPLIT BUSHING	2	
J-52	8620965	HOLDER	2	
J-53	8620963	DRIVER	2	
J-54	8620962	DRIVER	2	
J-55	8621134	DRIVER	2	
J-56	AKS-29050	ASSY TOOL	1	
X-2		OVEN	1	ON ORDER*-DUE
J-26	PBS 27954	PULLER	2	

EQUIPMENT CROSS REFERENCE LIST

DATE 06-03-89

PCN NO. 04542A, 10598A, 10718A

ALC SA

PART NAME STARTERS

RCC MATPSI

OPERATION DISASSEMBLY

PAGE 1 OF

EQUIPMENT CODE	TOOL/EQUIPMENT NUMBER	NAME	QUANTITY	COMMENTS
B526 CPS-02 MOD				
AB-1	6PT-44066	DISASSEMBLY BLOCK	5	
AB-2	6PT-80063	SPANNER WRENCH	2	
AB-3	6PT-46232	COMPRESSION FIXTURE	2	
AB-4	6PT-47457	SEAL PULLER	2	
AB-5	6PT-47972	PULLER, RETAINER SET	2	
AB-6	6PT-43615	FAN PULLER	2	
AB-7	6PT-44070	SHAFT PULLER	2	
100-87				
AB-8	8441968	BEARING PUSHER	1	
AB-9	64TM08309	SHAFT HOLDER	1	
AB-10	361175-05-06-07	SPECIAL WRENCH	3	
AB-11	65C2403	GEAR HOLDER	2	
AB-12	3472649	SPANNER WRENCH	1	
AB-13	284257-1-1	HOLDER	1	
B52 C-100-97				
AB-8	8441968	BEARING PUSHER	1	
AB-14	331	PUSHER, SEAL	1	
AB-9	64TM08309	SHAFT HOLDER	1	
AB-15	281496-1	BEARING PULLER	4	
AB-16	65C2404	SHAFT HOLDER	1	
AB-17	346	GOVERNOR REMOVER	1	
AB-18	347	GOVERNOR REMOVER	1	

2.3 WORKFORCE

The Workforce covers the skills needed to accomplish the disassembly, cleaning and inspection functions accomplished by MATPSI. The experience level of some of the workers in this RCC is very limited because many loan in/loan out's occur during the course of a year. The cleaning operations are generally the entry level jobs in this RCC.

The list of skill codes and number of people per shift is as follows:

MATPSI WORKFORCE

Skill Code	Description	Number/SHIFT	
		<u>1st</u>	<u>2nd</u>
4848 DB 07	Mechanical Repairer	3	0
5439 DB 05	Nondestructive Test Helper	1	0
5439 DB 09	Nondestructive Tester	12	1
5439 DB 10	Nondestructive Tester	4	1
5439 DD 05	Nondestructive Test Helper	1	0
5439 DD 06	Nondestructive Tester	2	2
5439 DD 09	Nondestructive Tester	14	6
5439 DD 10	Nondestructive Tester	6	1
5423 4D 05	Sand blast	3	0
7009 4D 05	Equipment Cleaner	10	0
8602 BA 05	Helper	1	0
8602 BA 08	Repairer	14	0

2.4

REPAIR PROCESS TECHNOLOGY

THE REPAIR PROCESS TECHNOLOGY WITHIN MATPSI CONSIST OF THREE DISTINCT FUNCTIONS. ONE IS THE DISASSEMBLY OF CERTAIN AIRCRAFT STARTERS AND F-15 AND F-16 END ITEMS, SECOND IS THE CLEANING OF THE PARTS FROM THESE END ITEMS AFTER THEY ARE DISASSEMBLED (PLUS PARTS FROM GAS TURBINE ENGINES) AND LASTLY, THE INSPECTION OF THE CLEANED PARTS.

2.5 WORKLOAD MIX AND VOLUME

THE WORKLOAD FOR MATPSI CONSISTS PRIMARILY OF THE ITEMS ON THE MISTR FILES FOR MATPG AND MATPS WHICH ARE FOUND IN THE 80/20 WORKLOAD SECTION OF THIS BOOK.

THE NUMBER INDUCTED IN FY88 FOR THE 80 PERCENT OF THE ITEM LIST WAS AS FOLLOWS:

PCN	NOUN	1ST Q	2ND Q	3RD Q	4TH Q	TOTAL
08004A	F15 LH AMAD	56	47	40	47	190
08005A	F15 RH AMAD	27	15	30	36	108
08006A	F15 JFS	82	68	85	90	325
08007A	F15 CGB	120	73	72	134	399
12712A	FIG ADG	35	34	36	39	144
13096A	FIG JFS	20	40	58	90	208
045A2A	CPS-02 MOD	110	107	80	128	425
10598A	ATSC 100-87	50	80	43	62	235
10718A	ATSC 100-97	44	78	77	59	258
13081A	GTE 85-70	34	34	20	19	107
13094A	GTE 85-397	54	59	38	34	185
13095A	GTE 85-180	49	63	53	47	212
	TOTAL	681	698	632	785	2796

2.5.1 INSPECTION WORKLOAD

IN ORDER TO REDUCE THE LARGE NUMBER OF ITEMS TO BE PROFILED IN THE INSPECTION AREA TO A MANAGEABLE NUMBER, THE FOLLOWING PROCEDURE WAS FOLLOWED:

- (a) A LISTING OF THE PARTS TO BE INSPECTED FOR EACH PCN WAS GENERATED.
- (b) THIS LIST WAS PURGED OF PARTS WHICH ARE ONLY SUBJECTED TO VISUAL INSPECTION.
- (c) FOUR CRITICAL PARTS WERE SELECTED FOR EACH PCN AND THEIR WCD'S WERE SUBJECTED TO INDIVIDUAL PROCESS CHARACTERIZATION.
- (d) A "GENERIC" PROCESS CHARACTERIZATION WCD WAS CREATED FOR THE REMAINING PARTS ON EACH PCN'S LIST.

(cont)

2.5.1 (d) cont.

THE MANPOWER AND EQUIPMENT NEEDED FOR EACH OF THESE GENERIC PROCESS PROFILES WAS ADJUSTED TO REFLECT THE TOTAL NUMBER OF DIFFERENT PARTS FOR EACH PCN, MINUS THE FOUR PREVIOUSLY SELECTED.

(e) THIS RESULTS IN A TOTAL OF 60 PROFILES BEING ACCOMPLISHED (IE; 5 PER PCN \times 12 PCN'S) INSTEAD OF THE TOTAL OF 589 PARTS ON THE 12 LISTS BY PCN WHICH FOLLOW.

2.5.2 CLEANING WORKLOAD

WCD'S FOR CLEANING THE INDIVIDUAL PARTS GENERALLY DO NOT EXIST. WCD'S WERE CREATED FOR THE 60 PARTS BEING STUDIED. THESE WERE IDENTIFIED BY ADDING A "C" AHEAD OF THE INSPECTION WCD NUMBER ON THEIR DATA SHEETS. SHOP PERSONNEL WERE INTERVIEWED TO CHARACTERIZE THE CLEANING PROCESS.

SA-ALC -- INSPECTION

PCN NO. 08004A

END ITEM: F15 L/H AMAD

WCD: TA071K DATED: 89107 NOUN: FLANGE, GEN MOUNTING PART NO. 365428-5
 WCD: TA072K DATED: 89086 NOUN: GEARSHAFT, 1DG SPUR PART NO. 366858-1
 WCD: TA074K DATED: 89086 NOUN: GEAR, 2ND IDL SPUR ASSY PART NO. 365357-1
 WCD: TA092K DATED: 89039 NOUN: LH/RH AMAD GEARBOX PART NO. 367042-1
 WCD: 612I DATED: 89152 NOUN: GENERIC

ITEM NO.	PART NUMBER	NOUN	WCD NUMBER	WCD DATE	ALTERNATE/ADDITIONAL PCN NUMBER
1	365429-1	DECOUPLER RING	TA002K	87037	08005A
2	367145-1	STEPPED, SPACER	TA009K	86276	08005A
3	365432-2	SPRING	TA025K	85127	08005A
4	365515-1	MOUNT, SWIVEL GEARBOX	TA030K	89088	08005A
5	366997-1	MOUNT, UPPER	TA032K	88111	08005A
6	366558-1	SPRING, HEL. COMP.	TA040K	84143	
7	367334-1	SPRING	TA048K	84259	
8	365777-1	PLATE (RETAINER)	TA051K	89082	08005A
9	367306-1	GEARSHAFT ASSY, PTD SPUR	TA053K	89086	
10	367424-1	SEAL, ROTOR	TA055K	89080	
11	367426-2	SHAFT, PTD SPLINED	TA056K	84129	
12	367427-1	CARRIER, L/H	TA059K	89086	
13	365859-5	ISOL. DECOUPLER PAWL CARRIER	TA065K	89020	08005A
14	365488-4	VENTURI, CAVITATION	TA068K	84129	
15	367562-1	COVER	TA070K	88110	08005A
16	365428-5	FLANGE GEN MOUNTING	TA071K	86211	08005A
17	366858-1	GEARSHAFT I.D.G. SPUR	TA072K	89086	08005A
18	365501-3	SECOND IDLER SHAFT INSPECTION	TA073K	89086	08005A
19	365357-1	GEAR, 2ND IDLER SPUR	TA074K	89086	08005A
20	365500-3	SHAFT, 1ST IDLER STATIONARY	TA075K	89086	08005A
21	365498-1	COVER	TA077K	84136	
22	365441-1	RETAINER, UTIL & PWR CNTRL	TA078K	89039	08005A
23	367064-1	GEARSHAFT	TA079K	88179	08005A
24	365358-1	SPUR GEAR	TA080K	89089	
25	365496-2	COVER ASSY	TA081K	85210	08005A
26	365353-1	SPUR GEAR	TA082K	84298	
27	367063-1	GEARSHAFT	TA083K	86022	08005A
28	365354-1	POWER CONTROL SPUR GEAR	TA084K	84129	
29	367195-1	SHROUD, L/H INSPECTION	TA085K	88131	08005A
30	365350-1	GEAR, POWER TAKEOFF BEVEL	TA086K	85094	
31	367042-1	LH/RH AMAD HOUSING ASSY	TA092K	89039	08005A
32	366526-2	HOUSING ISOLATION	TA095K	87023	08005A
33	367134-1	HSG, BRG ISOL. DECOUP.	TA097K	87024	08005A
34	367423-1	ROTOR SEAL	TA099K	87024	08005A
35	365513-2	SHAFT	TA100K	87056	08005A
36	367479-1	SPACER, L/H	TA106K	86247	
37	365960-4	PLATE, ISOL. DECOUP. DAMPING	TA111K	85210	08005A
38	366882-1	GEAR ASSY, 1ST IDLER	TA309K	88131	08005A

SA-ALC -- INSPECTION

PCN NO. 08005A END ITEM: F15 R/H AMAD

WCD: TA071K DATED: 89107 NOUN: FLANGE, GEN MOUNTING PART NO. 365428-6
WCD: TA072K DATED: 89086 NOUN: GEARSHAFT, IDG SPUR PART NO. 366858-1
WCD: TA074K DATED: 89086 NOUN: GEAR, 2ND IDL SPUR ASSY PART NO. 365357-1
WCD: TA092K DATED: 89039 NOUN: LH/RH AMAD GEARBOX PART NO. 367041-1
WCD: 611 DATED: 89152 NOUN: GENERIC

ITEM	PART	NOUN	WCD	WCD	ALTERNATE/ADDITIONAL
NO.	NUMBER		NUMBER	DATE	PCN NUMBER
1	365429-1	DECOUPLER RING	TA002K	87037	08004A
2	367145-1	STEPPED, SPACER	TA009K	86276	08004A
3	365432-2	SPRING	TA025K	85127	08004A
4	365515-1	MOUNT, SWIVEL GEARBOX	TA030K	89088	08004A
5	366997-1	MOUNT, UPPER	TA032K	88111	08004A
6	365897-1	PLATE (RETAINER)	TA051K	89082	08004A
7	365859-5	ISOL, DECOUPLER PAWL CARRIER	TA065K	89020	08004A
8	367561-1	COVER	TA070K	88110	08004A
9	367561-1	COVER	TA070K	88110	08004A
10	365428-6	FLANGE GEN MOUNTING	TA071K	86211	08004A
11	366858-1	GEARSHAFT I.D.G. SPUR	TA072K	89086	08004A
12	365501-3	SECOND IDLER SHAFT INSPECTION	TA073K	89086	08004A
13	365357-1	GEAR, 2ND IDLER SPUR	TA074K	89086	08004A
14	365500-3	SHAFT, 1ST IDLER STATIONARY	TA075K	89086	08004A
15	365441-1	RETAINER, UTIL & PWR CNTRL	TA078K	89039	08004A
16	367044-1	GEARSHAFT	TA079K	88179	08004A
17	365495-1	COVER ASSY	TA081K	85210	08004A
18	367063-1	GEARSHAFT	TA083K	86022	08004A
19	367195-2	SHROUD, L/H INSPECTION	TA085K	88131	08004A
20	367195-2	SHROUD	TA085K	88131	08004A
21	367041-1	LH/RH AMAD HOUSING ASSY	TA092K	89039	08004A
22	366525-2	HOUSING ISOLATION	TA095K	87023	08004A
23	367134-1	HSG, BRG ISDL, DECOUF.	TA097K	87024	08004A
24	367423-1	ROTOR SEAL	TA099K	87024	08004A
25	365513-2	SHAFT	TA100K	87056	08004A
26	365960-4	PLATE, ISOL, DECOUP, DAMPING	TA111K	85210	08004A
27	365559-2	COVER BEARING INSPECTION	TA289K	84146	
28	367227-2	GEARSHAFT ASSY, PTO SPUR	TA291K	84026	
29	367217-2	CARRIER, R/H	TA293K	86128	
30	366882-1	GEAR ASSY, 1ST IDLER	TA309K	88131	08004A
31	365898-1	GEAR	TA314K	84131	
32	365378-2	RETAINER	TA326K	84083	

SA-ALC -- INSPECTION

PCN NO. 08006A

END ITEM: F15 JET FUEL STARTER

WCD: TA032H DATED: 89075 NOUN: ANULAR COMBUSTION CHAMBER PART NO. 364923-5
 WCD: TA056H DATED: 89075 NOUN: INLET GEAR BOX HSG. ASSY PART NO. 367140-3
 WCD: TA077H DATED: 89019 NOUN: POWER TURBINE WHEEL PART NO. 366975-1
 WCD: TA088H DATED: 88350 NOUN: POWER TURBINE BEARING HSG. ASSY PART NO. 365820-2
 WCD: 62I DATED: 89152 NOUN: GENERIC

ITEM NO.	PART NUMBER	NOUN	WCD NUMBER	WCD DATE	ALTERNATE/ADDITIONAL PC# NUMBER
1	366993-1	TRANSFER TUBE	TA001H	88078	
2	367540-1	FUEL DRAIN SUPPORT ASSY	TA002H	88075	
3	365077-1	SPEC. OIL DRAIN TEE	TA004H	88075	
4	367256-1	COMPR. INLET SCREEN	TA005H	88071	
5	367545-1	TRANSFER TUBE	TA006H	88075	
6	366451-1	SPLINED, SHAFT	TA007H	88075	
7	ASM13755025	CLIP	TA007H	88075	
8	367542-1	FUEL TUBE ASSY	TA010H	87362	
9	367241-1	FUEL TUBE ASSY	TA010H	87362	
10	367543-1	FUEL TUBE ASSY	TA010H	87362	
11	ASM13755025-01	CLIP	TA011H	88075	
12	366108-1	F/MANIFOLD TUBE	TA012H	88075	
13	366109-1	F/MANIFOLD TUBE	TA012H	88075	
14	367263-1	COMPR. INLET DUCT	TA015H	88075	
15	367244-1	BRACKET ASSY	TA016H	88075	
16	367245-1	BRACKET ASSY	TA016H	88075	
17	367248-1	COMPR. INLET DUCT	TA017H	88075	
18	367292-1	MOUNT BRACKET	TA021H	88061	
19	367159-1	R. ENG. MT. BRKT.	TA022H	88075	
20	367159-2	R. ENG. MT. BRKT.	TA022H	88075	
21	367157-1	AX. COM. TURB. WHEEL	TA023H	89089	
22	364955-13	TURBINE PLENUM	TA027H	89048	
23	88809024	WASHER, SPRING TENSION	TA030H	88075	
24	364984-1	THRUST WASHER	TA031H	88075	
25	364923-5	COMBUST. CHAMBER	TA032H	88075	
26	367520-1	TUBE, RETAINER	TA034H	88075	
27	364950-2	IMPELLER SHROUD	TA037H	89103	
28	366590-1	SHAFT, TURBINE	TA039H	88075	
29	352723-35	WASHER, SPR. COMP.	TA043H	88095	
30	366992-1	SHAFT DRIVE	TA045H	88271	
31	367539-1	RETAINING ASSY	TA047H	88097	
32	366486-1	PINION, SHAFT	TA050H	88097	
33	365005-2	SPUR GEAR	TA051H	88097	
34	365083-1	FACE, GR/SHAFT	TA052H	88097	
35	365004-1	SPRING COMPRESSION	TA053H	88097	
36	3671979-1	SPUR GEAR, BEARING	TA055H	87275	
37	365914-1	SPUR GEAR, BEARING	TA055H	87275	
38	367140-3	INLET GR. BOX HOUS. ASSY	TA056H	89095	

:	39	:	364925-1	:	SPUR GEAR	:	TA060H	:	88075	:
:	40	:	365049-5	:	COMPRESSOR BEARING CARRIER	:	TA061H	:	88075	:
:	41	:	366930-1	:	AIR ROTATING SEAL NUT	:	TA062H	:	88075	:
:	42	:	366929-1	:	COUPLING HALF	:	TA063H	:	89019	:
:	43	:	364920-6	:	COMPRESSOR IMPELLER	:	TA064H	:	89066	:
:	44	:	364960-1	:	SHAFT-COUPLING	:	TA065H	:	88061	:
:	45	:	364956-2	:	HOUSING SEAL.	:	TA067H	:	87202	:
:	46	:	364967-2	:	STAT/CONT. RING	:	TA068H	:	89048	:
:	47	:	364921-1	:	COMPRESSOR, DIFFUSER ASSY	:	TA070H	:	89094	:
:	48	:	365127-3	:	GAS GENERATOR WHEEL ASSY	:	TA071H	:	89019	:
:	49	:	366931-1	:	TIE-ROD SHAFT	:	TA072H	:	88061	:
:	50	:	366945-2	:	LABYRINTH SEAL	:	TA076H	:	88075	:
:	51	:	366975-1	:	POWER TURBINE WHEEL	:	TA077H	:	89019	:
:	52	:	366944-1	:	SEAL, COVER	:	TA078H	:	89089	:
:	53	:	366856-1	:	SEAL ROTOR	:	TA080H	:	88075	:
:	54	:	SB164-240	:	PRECISION WASHER	:	TA082H	:	88075	:
:	55	:	366140-1	:	SPRING, COMP.	:	TA083H	:	88075	:
:	56	:	364919-1	:	PWR. TUB. STATOR	:	TA087H	:	89048	:
:	57	:	366820-2	:	TURB. BEAR. HOUS. ASSY	:	TA088H	:	88350	:
:	58	:	367490-1	:	SPACER	:	TA095H	:	88075	:
:	59	:	384238-4-1	:	VISUAL INSPECTED PARTS	:	TA500H	:	88263	:

SA-ALC -- INSPECTION

PCN NO. 08007A

END ITEM: F15 CENTRAL GEAR BOX

WCD: TA004R DATED: 88181 NOUN: FAN OIL COOLER INLET HSG. PART NO. 367393-1
 WCD: TA046R DATED: 89082 NOUN: GEAR BOX MATCHED SET HSG. PART NO. 367040-3
 WCD: TA092R DATED: 89005 NOUN: DRIVEN BEVEL GEAR PART NO. 366265-2
 WCD: TA098R DATED: 89082 NOUN: DECOUPLER ASSY., PISTON PART NO. 366125-2
 WCD: G3I DATED: 89152 NOUN: GENERIC

ITEM NO.	PART NUMBER	NOUN	WCD NUMBER	WCD DATE	ALTERNATE/ADDITIONAL PCN NUMBER
1	367613-1	CLUTCH & BRAKE ASSY.	TA001R	88174	
2	367621-1	FAN DUCT, INLET-REV/FLOW	TA002R	88181	
3	367393-1	FAN OIL COOLER INLET HSG.	TA004R	88181	
4	A75	MAGNETIC PLUG	TA005R	87266	
5	367927-2	BRAKE ADAPTER	TA008R	89082	
6	367614-1	FAN & ADAPTER	TA017R	88335	
7	367261-2	FAN STATOR	TA019R	87252	
8	367056-2	VALVE ASSY	TA023R	87266	
9	367060-1	OIL CHECK VALVE	TA030R	87266	
10	159490-3-1	AIR-OIL COOLER	TA033R	88165	
11	159490-3-3	AIR-OIL COOLER	TA033R	88165	
12	159490-3-2	AIR-OIL COOLER	TA033R	88165	
13	366258-2	ROTOR SEAL	TA042R	89005	
14	367040-3	GEAR BOX MATCHED SET HSG	TA046R	89082	
15	367444-1	CLUTCH SEAL	TA049R	89005	
16	365145-1	OIL JET TUBE	TA056R	87266	
17	367443-1	SEAL HOUSING	TA055R	87267	
18	367455-1	GEAR, SPUR	TA056R	88337	
19	365221-1	BEARING SHAFT	TA059R	87267	
20	365997-1	IDLER SPUR GEAR	TA062R	89082	
21	366718-2	PUMP HOUSING	TA064R	89005	
22	366020-4	ROTOR, MATCHED SET	TA066R	87267	
23	367272-1	SPUR GEAR	TA069R	87267	
24	352723-33	WASHER, SPRING	TA070R	87252	
25	352723-43	WASHER, SPRING	TA070R	87252	
26	366420-2	PUMP LINER	TA071R	87281	
27	366452-2	OIL DISTRIBUTION TUBE	TA076R	87281	
28	367215-1	SPUR GEAR	TA077R	87281	
29	367321-1	RATCHET WHEEL ASSEMBLY	TA080R	87281	
30	366949-1	L/H DECOUPLER HOUS. ASSY	TA083R	89082	
31	365196-3	SEAL CARRIER	TA084R	87281	
32	366145-4	SEAL CARRIER	TA085R	87287	
33	366266-1	SPRING RETAINING NUT	TA086R	88356	
34	366318-1	HELICAL COMPRESSION SPRING	TA087R	89024	
35	366118-1	GUIDE BUSHING	TA088R	89082	
36	366267-3	OIL TRANSFER TUBE	TA090R	87281	
37	366265-2	DRIVEN BEVEL GEAR	TA092R	89005	
38	367171-1	R/H DECOUPLER HOUSING ASSY.	TA095R	89082	

39	366125-2	DECOUPLER ASSY, PISTON	TA098R	89082
40	367160-3	BEARING HOUSING ASSEMBLY	TA102R	89082
41	367440-1	ROTOR SEAL	TA104R	89005
42	367431-1	BAFFLE RING	TA105R	87287
43	367538-1	PISTON, ACTUATOR	TA107R	88337
44	367161-1	BEARING HOUSING ASSEMBLY	TA110R	89082
45	365151-1	BEVEL GEAR	TA112R	87287
46	367484-1	HELICAL COMPRESSION SPRING	TA115R	87292
47	367448-1	SHAFT, CLUTCH	TA118R	89005
48	367497-1	SHAFT	TA119R	87292
49	367502-1	RETAINER ASSEMBLY	TA121R	87292
50	367216-1	SHAFT, SPLINED	TA122R	87292
51	366016-2	BEARING CARRIER	TA124R	89082
52	367449-1	PUMP INLET, TUBE ASSEMBLY	TA127R	87293
53	367137-1	GEARSHAFT ASSY.	TA154R	88153

SA-ALC -- INSPECTION

PCN NO. 12712A END ITEM: F16 ACCESSORY DRIVE GEAR

WCD: TA014L DATED: 89081 NOUN: CARBON FACE SEAL PART NO. 3803-21
 WCD: TA076L DATED: 89075 NOUN: IMPELLER ASSY, PART NO. 5004952-1
 WCD: TA077L DATED: 89075 NOUN: TURBINE HOUSING PART NO. 5003714
 WCD: TA080L DATED: 89080 NOUN: TURBINE PART NO. 503715
 WCD: 671 DATED: 89152 NOUN: GENERIC

ITEM NO.	PART NUMBER	NOUN	WCD NUMBER	WCD DATE	ALTERNATE/ADDITIONAL PCN NUMBER
1	5002706	PUMP SHAFT	TA002L	88281	
2	5005574	LINK SUPPORT	TA003L	89030	
3	5005572-1	SEAL RETAINER HSG ASSY	TA013L	89081	
4	3803-21	CARB FACE SEAL	TA014L	89081	
5	5005112	INPUT HOUSING	TA015L	89081	
6	5005119	SPLINED SHAFT	TA016L	89081	
7	5002699B	COVER HSG ASSY	TA017L	89034	
8	5004054	CLUTCH HSG	TA018L	89034	
9	5002671	PUMP MOUNTING HSG	TA021L	89060	
10	5002654	SPUR GEAR SHAFT	TA022L	89081	
11	5002674	START MOTOR MOUNTING HOUSING	TA023L	89081	
12	5004469	SPLINED CLUTCH SHAFT	TA024L	89081	
13	5004466	SPUR GEAR	TA025L	89081	
14	5004891	IDG MOUNTING HSG	TA027L	89087	
15	5002633	SPUR GEAR SHAFT	TA028L	89087	
16	5002673A	JFS MOUNTING HSG	TA029L	89087	
17	5004968	SEAL RETAINER HSG ASSY	TA030L	89087	
19	5005236	PISTON	TA033L	89087	
19	5004818	SPUR GEAR SHAFT	TA034L	89087	
20	5002722	BEARING RETAINER	TA035L	89087	
21	5005253	BEARING SHAFT	TA036L	89087	
22	5002724	RETAINER HSG	TA037L	89087	
23	5002704	COVER ASSY	TA038L	89075	
24	5002696	COVER ASSY	TA039L	89075	
25	5005027	SPUR GEAR	TA040L	89087	
26	5002641	SPUR GEAR	TA041L	89075	
27	5002647	CLUSTER SPUR GEAR	TA042L	89075	
28	5004459	SPUR GEAR SHFT	TA043L	89107	
29	5002658	PUMP GEAR SHAFT	TA044L	89107	
30	5002657	SPUR GEAR	TA045L	89107	
31	5004464	SPUR GEAR SHAFT	TA046L	89075	
32	5004463	SPUR GEAR & CARBON BRG	TA047L	89075	
33	5902167	OVERRUNNING CLUTCH SPRAG	TA048L	89075	
34	5002709	SPUR GEAR	TA049L	89107	
35	5005252	BEARING SHAFT	TA050L	89074	
36	5002655	SPUR GEAR	TA052L	89107	
37	5004339	SPUR GEAR SHAFT	TA053L	89075	
38	5002712	SPUR GEAR	TA055L	89107	

39	5002775	LUBE NOZZLE FITTING	TA056L	89075
40	5002739	VALVE PISTON	TA058L	89076
41	5002738	VALVE SLEEVE	TA059L	89075
42	5002735	VALVE SLEEVE	TA061L	89107
43	5003518	VALVE PISTON	TA062L	89107
44	99-4428	SPRING	TA063L	89075
45	02-15054	VALVE PISTON	TA064L	89107
46	02-15053	VALVE SLEEVE	TA065L	89107
47	5005249	BEARING SHAFT	TA066L	89075
48	5005250	BEARING SHAFT	TA067L	89075
49	5005251	BEARING SHAFT	TA068L	89075
50	5002653	SPUR GEAR	TA069L	89107
51	5004819	CLUSTER GEAR	TA070L	89107
52	5004020	BUSHING HSG	TA071L	89107
53	5003921	IMPELLER	TA072L	89004
54	5002706	PUMP SHAFT	TA073L	89107
55	5002637	SPUR GEAR	TA074L	88342
56	5002694D	GEAR BOX HSG	TA075L	89033
57	5004052-1	IMPELLER ASSY	TA076L	89075
58	5003714	TURBINE HSG	TA077L	89075
59	5002706	PUMP SHAFT	TA078L	89109
60	5002624	GEAR	TA079L	88342
61	5003715	TURBINE	TA080L	89060
62	3803-13	CARBON FACE SEAL	TA081L	99335
63	5003969	TRANSFER TUBE SLEEVE	TA089L	88342
64	5003973	VALVE SLEEVE	TA090L	88342
65	5003972	FLOW PISTON	TA092L	88342
66	5003974	CONTROL PISTON	TA093L	88342
67	5004475	END PLATE	TA094L	89074
68	5005231	PISTON & SLEEVE	TA095L	89075
69	3803-14	CARB FACE SEAL	TA096L	89075
70	3803-25	CARB FACE SEAL	TA096L	89075
71	5002748-1	SEAL RETAIN. HSG ASSY	TA097L	88342
72	5006449	SEAL ASSY	TA098L	88342
73	5006450	RING	TA099L	89074
74	5002611	END HSG	TA100L	89075
75	5002610	PISTON HSG	TA101L	89058
76	5003986	PISTON	TA102L	89074
77	5004742	OUTPUT GEAR	TA103L	89074
78	5004474	END PLATE	TA104L	89058
79	5002601	INPUT GEAR	TA105L	89074
80	5004475	END PLATE	TA106L	89058
81	5002747-1	SEAL RETAINER HSG	TA109L	88334
82	5002702-1	SEAL RETAINER HSG	TA111L	88334
83	5002720-1	SEAL RETAINER HSG	TA112L	88334
84	5005069	AD6 GEARBOX HSG	TA115L	88334
85	5002694D	AD6 GEARBOX HSG	TA115L	88334
86	5002659	CLUTCH SPLINED SHAFT	TA116L	89074
87	5005215	REACTOR	TA117L	88334
88	5003866	OUTER CLUTCH PLATES	TA120L	89074
89	5003867	INNER CLUTCH PLATES	TA121L	89074
90	5005252	BEARING SHAFT	TA130L	89023

SA-ALC -- INSPECTION

PCN NO. 13096A

END ITEM: F16 JET FUEL STARTER

WCD: TA109U DATED: 89089 NOUN: COMBUSTOR HOUSING ASSY. PART NO. 160007-100
 WCD: TA113U DATED: 89089 NOUN: FUEL MANIFOLD PART NO. 5901086
 160012-100
 WCD: TA115U DATED: 89089 NOUN: START FUEL NOZZLE PART NO. 5901085
 WCD: TA130U DATED: 89089 NOUN: COMP ROTOR/SHAFT PART NO. 160006-300
 WCD: 68I DATED: 89152 NOUN: GENERIC

ITEM NO.	PART NUMBER	NOUN	WCD NUMBER	WCD DATE	ALTERNATE/ADDITIONAL PCN NUMBER
1	160005-100	QUILL SHAFT	TA108U		
2	160007-100	COMBUSTOR HOUSING ASSY	TA109U	89089	
3	160012-100	FUEL MANIFOLD	TA113U	89089	
4	5901086	FUEL MANIFOLD	TA113U	89089	
5	5901085	START FUEL NOZZLE	TA115U	89089	
6	111931-200	LINER ASSY	TA117U	89089	
7	160004-200	TURBINE NOZZLE ASSY	TA118U	89089	
8	103754-1	BRG RETAIN/OIL SLINGER NUT	TA119U		
9	101284-101	BEARING RETAINER PLATE	TA120U		
10	160008-2	AIR INLET HOUSING	TA121U	89089	
11	160009-1	DIFFUSER	TA123U	89089	
12	162689-1	COMPRESSOR ROTOR	TA124U	89089	
13	36373-100	ROTOR SHAFT ASSY	TA125U		
14	42806-0	SEAL FLATE ASSY	TA126U	89089	
15	160006-300	COMP ROTOR/SHAFT	TA130U		

SA-ALC -- INSPECTION

PCN NO. 04542A

END ITEM: CPS02 MOD STARTER

WCD: TA2150	DATED: 88340	NOUN: TURBINE HOUSING ASSY.	PART NO. 693040B
WCD: TA2180	DATED: 89040	NOUN: GEAR HOUSING SUBASSEMBLY	PART NO. 693041B
WCD: TA2300	DATED: 89038	NOUN: EXHAUST HOUSING	PART NO. 703985
WCD: TA2720	DATED: 89095	NOUN: TURBINE ROTOR	PART NO. 692217
WCD: 84I	DATED: 89152	NOUN: GENERIC	

ITEM NO.	PART NUMBER	NOUN	WCD NUMBER	WCD DATE	ALTERNATE/ADDITIONAL PCN NUMBER
1	692563	GEARSHAFT, SPUR	TA2070	87308	
2	687446	OUTPUT SPUR GEAR SHAFT	TA2080	87308	
3	693039A	SPLINE SHAFT ASSY	TA2100	87308	
4	690271	BAND, MOUNTING	TA2110	87309	
5	688667-1	CONTAINMENT CLAMP	TA2120	87309	
6	688667-2	CONTAINMENT CLAMP	TA2130	87309	
7	692690	CLUTCH RACE	TA2140	89009	
8	693040B	TURBINE HOUSING ASSY.	TA2150	88340	
9	690738	TUBE CLAMP SET	TA2160	88340	
10	687471	RETAINER	TA2170	87043	
11	693041B	GEAR HOUSING SUBASSEMBLY	TA2180	89040	
12	693817	GOVERNOR HOUSING	TA2190	88319	
13	707795	RING PLENUM AND NOZZLE ASSY	TA2200	89040	
14	692953	BREECH HANDLE ASSEMBLY	TA2230	88326	
15	690915	BREECH CAP	TA2240	89018	
16	697470	ROTATING SEAL	TA2250	89040	
17	717594	SEAL, STATIONARY	TA2260	89040	
18	692220	BREECH CHAMBER	TA2280	88340	
19	690174A	CONNECTOR	TA2290	87043	
20	703985	EXHAUST HOUSING	TA2300	89038	
21	688535	SPACER	TA2310	89059	
22	692217	TURBINE ROTOR	TA2320	89095	
23	716682/687426A	CENTRIFUGAL FAN	TA2360	88354	
24	692218-1	GEARSHAFT, SPUR	TA2370	88266	
25	693076	SEAL, RETAINER	TA2390	88271	
26	690901	BREECH HANDLE	TA2470	88340	
27	688538	STATIONARY SEAL	TA2490	88354	
28	690469	LEVER	TA2500	88225	
29	7011750	ROTATING SEAL	TA2510	88354	
30	693798	SUPPORT BEARING	TA2630	88222	
31	693036	SHAFT, CLUTCH NO. 8	TA2700	88225	
32	693887	SHAFT, CLUTCH	TA2710	88225	
33	692909	SPRING, HELICAL	TA2720	88225	
34	24561	SPRAG CLUTCH	TA2730	87070	

SA-ALC -- INSPECTION

PCN NO. 10598A END ITEM: ATSC 100-87 STARTER

WCD: TA043A DATED: 89026 NOUN: CHAMBER ASSY. PART NO. 361000 & 3502143-3
WCD: TA044A DATED: 89263 NOUN: CHAMBER ASSY. PART NO. 364021-1
WCD: TA057A DATED: 89058 NOUN: PLENUM ASSY. PART NO. 364020-1/ -4
WCD: TA063A DATED: 88091 NOUN: HOUSING ASSY. PART NO. 360244
WCD: 651 DATED: 89152 NOUN: GENERIC

ITEM NO.	PART NUMBER	NOUN	WCD NUMBER	WCD DATE	ALTERNATE/ADDITIONAL PCN NUMBER
1	361000	CHAMBER ASSY (EXCHG. ITEM)	TA043A	89026	
2	3502143-3	CHAMBER ASSY (EXCHG. ITEM)	TA043A	89026	
3	364021-1	CHAMBER ASSY	TA044A	88263	
4	360259	LINER	TA045A	88081	
5	351589-10	GEAR	TA046A	88081	
6	360262	GEAR	TA047A	85115	
7	360323	HUB, INTERNAL GEAR	TA048A	85115	
8	360273	SUPPORT BEARING	TA049A	88264	
9	360269	GEAR SPUR	TA051A	88335	
10	3500162-1	SHAFT ASSY O/P	TA054A	88081	
11	360268	GEARSHAFT, SPUR	TA055A	88264	
12	360293	PAWLS (3 EA)	TA056A	89026	
13	364020-1	PLENUM ASSY	TA057A	87246	
14	3500161-1	SHAFT ASSY	TA058A	88081	
15	360639	GUIDE, BOLT	TA059A	88081	
16	360603	FLANGE ASSY	TA060A	88081	
17	123284-1-1	VALVE CHECK 3 IN. DIAM.	TA061A	88245	
18	360646	RETAINER	TA062A	88081	
19	360244	HOUSING ASSY	TA063A	88081	
20	360604	HOUSING ASSY	TA064A	89048	
21	360283	CARRIER, ASSY	TA066A	89052	
22	361053	NOZZLE PLATE ASSY	TA067A	88081	
23	3502137-1	NOZZLE PLATE ASSY	TA067A	88081	
24	360642	SHIELD	TA068A	88081	
25	364078-1	TURBINE WHEEL ASSY (EX ITEM)	TA075A	88337	
26	3502136-1	TURBINE WHEEL ASSY (EX ITEM)	TA075A	88337	
27	360495	GRIP, HANDLE	TA182A	88081	
28	360656	SPRING	TA187A	88081	

SA-ALC -- INSPECTION

PCN NO. 10718A END ITEM: ATSC 100-97 & 100-97A STARTER

WCD: TA015T DATED: 88132 NOUN: HOUSING ASSY PART NO. 3500464-1
 WCD: TA034T DATED: 88272 NOUN: T WHEEL PART NO. 364078-4
 WCD: TA035T DATED: 89209 NOUN: CHAMBER ASSY (DOME) PART NO. 3500756-1
 WCD: TA037T DATED: 88155 NOUN: CHAMBER ASSY (BREECH CAP) PART NO. 3500572-2
 WCD: 66I DATED: 89152 NOUN: GENERIC

ITEM NO.	PART NUMBER	NOUN	WCD NUMBER	WCD DATE	ALTERNATE/ADDITIONAL PCN NUMBER
1	3500538-1	SHIELD	TA001T	88132	
2	3500915-11	ROD, BALL END	TA003T	88132	
3	3500913-1	CLEVIS	TA004T	88132	
4	364052-2	SUPPORT	TA005T	88132	
5	3500906-1	ARM, ACTUATING	TA006T	88132	
6	3500944-11	ARM, ASSEMBLY	TA007T	88132	
7	351355-4	CONNECTOR	TA009T	88132	
8	3500815-1	SPRING	TA010T	88132	
9	3500919-1	SPRING	TA011T	88132	
10	3500908-1	ARM	TA012T	88132	
11	3500464-1	HOUSING ASSY	TA015T	88132	
12	3500502-1	PLENUM ASSY	TA016T	88131	
13	3500782-1	MANIFOLD NOZZLE	TA017T	88132	
14	123284-1-1	CHECK VALVE	TA018T	88131	
15	3500701-1	PLATE	TA019T	88133	
16	350375-27	SHAFT ASSY	TA020T	88080	
17	350375-27	SHAFT-ASSY	TA020T	88201	
18	3500467-1	GEAR	TA021T	88232	
19	3500602-1	SPRING	TA022T	88232	
20	3500603-1	CARRIER	TA023T	88089	
21	357079	HUB	TA024T	87690	
22	3500354-1	GEARSHAFT (3 EA)	TA025T	88232	
23	3500409-1	GEARS (3 EA)	TA026T	88232	
24	351589	GEAR, INTERNAL SPUR	TA027T	88232	
25	356850	CARRIER ASSY, SEAL	TA028T	88040	
26	3500462-1	HOUSING	TA029T	88232	
27	351392	PAWLS (3 EA)	TA031T	88075	
28	364078-4	T WHEEL (EXCHG ITEM)	TA034T	88272	
29	3500756-1	CHAMBER ASSY (EXCHG. ITEM)	TA035T	88209	
30	3500501-1	CHAMBER ASSY (EXHAUST)	TA036T	87284	
31	3500572-2	CHAMBER ASSY (EXCHG. ITEM)	TA037T	88155	
32	356346-10	CARRIER ASSY	TA038T	88188	

SA-ALC -- INSPECTION

PCN NO. 13081A

END ITEM: GAS TURBINE ENGINE 85-70A

WCD: T6813A DATED: 88244 NOUN: DIFFUSER ASSY, 2ND STAGE PART NO. 373823
 WCD: T6816F DATED: 89097 NOUN: HOUSING ASSY, 1ST STAGE (INLET) PART NO. 378383-3
 WCD: T6859A DATED: 87270 NOUN: HOUSING ASSY, ACCESSORY DRIVE PART NO. 373623-3
 WCD: T6890A DATED: 87240 NOUN: SHAFT ASSY, FAN IDLER GEAR PART NO. 693522
 WCD: 691 DATED: 89152 NOUN: GENERIC

ITEM NO.	PART NUMBER	NOUN	WCD NUMBER	WCD DATE	ALTERNATE/ADDITIONAL FCN NUMBER
1	373613-3	SHAFT ASSY, FAN DRIVE	T6804F	87243	
2	370479-1-XX	TUBE ASSEMBLY (RIGID) *(16 PARTS-SEE WCD T6101F)	T6101F	87270	
3	370116	PLATE, RETAINER	T6809A	87270	13094A & 13095A
4	373822/76443	DESNIRL ASSY, 2ND STAGE DIFF.	T6812F	87270	13094A
5	373823	DIFFUSER, 2ND STAGE DIFFUSER ASSY	T6813A	87270	
6	378383-3	HOUSING ASSY, 1ST STAGE (INLET)	T6816F	89097	
7	693368	SEAL, BEARING HOUSING	T6823F	88217	13094A
8	74623-1	FITTING, OIL DRAIN	T6826F	88217	13094A
9	376794	SHAFT, TORSION	T6831A	89062	13094A
10	371144	SHAFT, TORSION	T6831A	89032	13094A
11	371143	SHAFT, TORSION	T6832F	87270	13094A
12	379483	MOUNT ASSY., BEARING	T6833A	87270	
13	74517	RETAINER, COMPRESSOR BEARING	T6834A	87270	13094A
14	379219	RETAINER (2 EA.)	T6835A	87270	13094A
15	76876	NUT, COMPRESSOR SHAFT	T6837A	87270	13094A
16	696327-2	TURBINE WHEEL ASSY. (NEW)	T6844A	87270	13094A
17	693155-100	NOZZLE ASSY, BRANCHED, OIL JET	T6848A	87270	13094A
18	70966	SPACER, BEARING	T6849A	87270	13094A
19	693327	SPACER, TURB. BRG.	T6850A	87270	13094A
20	693263	RETAINER, BEARING	T6851A	87270	13094A
21	75475	HOUSING, FAN OUTLET	T6855F	88245	
22	75470	FAN ASSY., OIL COOLER	T6856A	87270	
23	370119	HOUSING, FAN INLET	T6857F	87270	
24	373623-3	HOUSING ASSY., ACCESSORY DRIVE	T6859A	87270	
25	370654	SCREEN, FAN HOUSING INLET	T6861A	87270	
26	7346991-10	SCREEN, FAN HOUSING INLET	T6861A	87270	
27	373474	SPACER ASSY., STARTER MOTOR	T6862F	88308	
28	373475	GUARD, BARRIER STARTER	T6864A	87270	
29	74696-2	SLEEVE, FAN DRIVE BEARING	T6865A	87270	
30	72021	SPACER, FAN DRIVE BEARING	T6866A	87270	
31	693123	GEAR, FAN IDLER	T6869A	87270	
32	370079	BUSHING, IDLER GEAR	T6870A	87270	
33	370339	BUSHING, INTERMEDIATE SHAFT	T6871A	87270	
34	73268-1	SHAFT, OVERSPEED SWITCH	T6872A	87270	
35	693126	GEAR, PUMP	T6873A	87270	
36	693125	GEAR, SPUR	T6874A	87270	
37	693211	GEAR ASSY, MAIN DRIVE	T6875A	89009	

38	73653	SHAFT, OVERSPEED SWITCH	T6876A	87270	
39	75677	ADAPTER, CENTRIFUGAL SWITCH	T6877A	87270	
40	378104-1	RETAINER, BEARING	T6878A	87270	
41	378102-10	SPACER SET, BEARING MATCHED	T6879A	87270	
42	378103-10	CARRIER, ACCESS. DRIVE BEARING	T6880A	87270	
43	693120	GEAR, BEVEL	T6881A	87270	
44	370549	RETAINER, SCREEN, OIL COOLER FAN	T6882A	87270	
45	72022	SPRING, FAN SHAFT	T6884A	87270	
46	75675	SPRING	T6865A	87270	
47	74661	INSULATOR	T6897A	87270	
48	693522	SHAFT ASSY, FAN IDLER GEAR	T6890A	87240	
49	371319	ORIFICE ASSY.	T6901A	87270	13094A
50	MS28741-4-XXXX	HOSE ASSY., (FLEXIBLE)	T6931F	89013	
	MS28741-8-XXXX	113 PARTS-SEE WCD T6931F)			
	MS28741-6-XXXX				
	AN6270-4-52				
	601000-12-0120				

SA-ALC -- INSPECTION

PCN NO. 13094A

END ITEM: GAS TURBINE ENGINE 85-397

WCD: T6813A	DATED: 88244	NGUN: DIFFUSER ASSY. 2ND STAGE	PART NO. 373823
WCD: T6840A	DATED: 89025	NGUN: TORUS, TURBINE	PART NO. 379185-52
WCD: T6841F	DATED: 89090	NGUN: NOZZLE, TURBINE	PART NO. 378513-4
WCD: T5046G	DATED: 9270	NGUN: PLENUM, TURBINE	PART NO. 371083-2
WCD: 6101	DATED: 89152	NGUN: GENERIC	

ITEM NO.	PART NUMBER	NGUN	WCD NUMBER	WCD DATE	ALTERNATE/ADDITIONAL PCN NUMBER
1	73268	SHAFT, OVERSPEED SWITCH	T6514F	87300	
2	8694581	TUBE ASSEMBLY (RIGID)	T6401F	87270	
		*(13 PARTS-SEE WCD T6401F)			
3	378916-11	CARRIER ASSY, GEAR, PLANET	T6436F	87077	13095A
4	75532-3	HOUSING, PLANETARY CARRIER	T6450F	87002	
5	75283	GEAR, PLANETARY (E EA.)	T6451F	87002	
6	74339	SHAFT, PLANET GEAR	T6452F	87002	
7	371551	GEAR ASSEMBLY, SPUR	T6454F	87002	
8	74340	BUSHING, PLANET GEAR	T6458F	87102	
9	3604090-1	CASE ASSEMBLY, ACCESSORY	T6490F	88338	13095A
10	372896-16	CASE ASSEMBLY, ACCESSORY	T6490F	88338	13095A
11	75970	HOUSING ASSY, VANE, PRESWIRL	T6492F	89086	13095A
12	692070	FLANGE, MOUNT PLATE	T6493F	87215	
13	75973	FAN ASSY, OIL COOLER	T6494F	88344	13095A
14	75978	COVER ASSY., DRIVE FAD	T6495F	88344	
15	372822	SHAFT ASSY., FAN DRIVE	T6501F	88232	
16	75331-4	GEAR ASSY. GENERATOR DRIVE	T6502F	87300	
17	75331-2	GEAR ASSY. GENERATOR DRIVE	T6502F	87300	
18	371356-1	SHAFT ASSY., FAN IDLER GEAR	T6503F	87300	
19	372080	SPRING, FAN SHAFT	T6505F	87300	
20	73939	RETAINER, BEARING	T6506F	87300	
21	371723	HOUSING, BEARING, GENERATOR DR.	T6507F	87300	
22	75858	RETAINER, BEARING GASKET SEAL	T6508F	87300	13095A
23	75333	RETAINER, SEAL, MAIN SHAFT	T6509F	89017	
24	692531	GEAR, SPUR PUMP	T6510F	87300	
25	72004	GEAR, OVER SPEED SWITCH DRIVE	T6511F	87300	
26	75969	RETAINER, FAN BEARING	T6512F	87300	
27	76389-1	GEAR RING	T6513F	87300	
28	73267	BUSHING, OVERSPEED SW. CUTES	T6515F	87300	
29	73067-2	SPACER, BEARING	T6516F	87300	
30	375652-2	GUARD, STARTER BARRIER	T6518F	88288	
31	372763	SPACER, STARTER MOTOR	T6519F	87300	
32	73949	GEAR, FAN IDLER	T6520F	87300	
33	74347	RING, RETAINING	T6521F	87300	
34	370343	SPACER, NUT	T6523F	87300	
35	88399-594-XXX	HOSE, FLEXIBLE (BRAIDED) #2, #9, #15	T6570F	87270	
		*(3 PARTS-SEE WCD T6570F)			
36	370213	CAP ASSY, TURBINE COMBUSTOR	T6907A	89025	13081A

37	370116	PLATE, RETAINER	T6809A	87270	13081A
38	3738221/76443	DESWIRL ASSY, 2ND STAGE DIFF.	T6812F	87270	13081A
39	373823	DIFFUSER ASSY, 2ND STAGE	T6813A	88244	
40	372933-2	DIFFUSER ASSY, 1ST STAGE COMPR	T6817F	89095	13081A
41	378101/371690	COMPRESSOR ROTATING ASSEMBLY	T6820A	88150	13081A
42	372556	IMPELLER, 2ND STAGE	T6821A	89025	13081A
43	378101 /0/ -1	IMPELLER 1ST STG	T6822A	89069	13081A
44	693368	SEAL, BEARING HOUSING	T6823F	88217	13081A
45	372696	DUCT, AIR, INTERSTAGE 7 EA.	T6824F	88216	13081A
46	376803	FITTING, OIL DRAIN	T6826F	88217	13081A
47	75678-1	FITTING, OIL AND BREATHER	T6827F	88217	13081A
48	376939	TUBE, OIL BREATHER	T6828F	88217	13081A
49	693157	TUBE, OIL JET	T6830F	88217	13081A
50	376794	SHAFT, TORSION	T6831A	89092	13081A
51	373019-1	SHAFT, TORSION	T6832F	87270	13081A
52	74517	RETAINER, COMPRESSOR BEARING	T6834A	87270	13081A
53	379219	RETAINER (2 EA.)	T6835A	87270	13081A
54	70876	NUT, COMPRESSOR SHAFT	T6837A	87270	13081A
55	358066-1	BUSHING, SLEEVE	T6838A	87737	13081A
56	379185-52	TORUS, TURBINE	T6840A	89025	
57	378513-4	NOZZLE, TURBINE	T6841F	89090	
58	696327-1	WHEEL, TURBINE (WASPASLOY)	T6842F	88216	13081A
59	696327-1	TURBINE WHEEL ASSY. (NEW)	T6844A	87270	13081A
60	75157	SHIELD, TURBINE WHEEL	T6845F	87270	13081A
61	69155-100	NOZZLE ASSY, BRANCHED, OIL JET	T6848A	87270	13081A
62	70866	SPACER, BEARING	T6849A	87270	13081A
63	693327	SPACER, TURB. BRG.	T6850A	87270	13081A
64	693263	RETAINER, BEARING	T6851A	87270	13081A
65	371319	GRIFICE ASSY.	T6851A	87270	13081A
66	372519	DUCT COOLER	T6830A	87270	13081A
67	371083-2	PLENUM, TURBINE	T6847A	87270	

SA-ALC -- INSPECTION

PCN NO. 13095A

END ITEM: GAS TURBINE ENGINE 85-180

WCD: TG490F DATED: 88338 NOUN: ACCESSORY CASE PART NO. 372896-20
 WCD: T6611D DATED: 88288 NOUN: LINER, COMBUSTION CHAMBER PART NO. 899244-3
 WCD: T6615D DATED: 88224 NOUN: TORUS, TURBINE PART NO. 968959-2
 WCD: T6645D DATED: 87287 NOUN: WHEEL & SHAFT ASSY. PART NO. 3606982-1
 968095-3/-5

WCD: 6111 DATED: 89152 NOUN: GENERIC

ITEM NO.	PART NUMBER	NOUN	WCD NUMBER	WCD DATE	ALTERNATE/ADDITIONAL PCN NUMBER
1	378916-11	CARRIER ASSY, GEAR, PLANET	T6438F	87077	
2	372896-20	CASE ASSEMBLY, ACCESSORY	T6490F	88338	
3	75973	FAN ASSY., OIL COOLER	T6494F	88344	
4	75858	RETAINER, BEARING GASKET SEAL	T6508F	87300	
5	977106-1	PLENUM TURBINE	T6610D	87235	
6	899244-3/-5	LINER, COMBUSTION CHAMBER	T6611D	88288	
7	895709-4/-2	CAP, COMBUSTION	T6612D	87273	
8	379692-20	FLANGE	T6613D	87242	
9	372844	VENT TUBE	T6614D	87272	
10	968959-2	TORUS, TURBINE	T6615D	88224	
11	968958-2	RING, CONTAINMENT	T6616D	88056	
12	899607-1	PIPE, EXHAUST	T6617D	88200	
13	968886-1/-2/-4	NOZZLE, TURBINE	T6618D	87253	
14	968233-1	SHROUD, TURBINE WHEEL	T6619D	87362	
15	966972-1	BOLTS, NOZZLE	T6620D	88060	
16	373685	SPACER, NOZZLE	T6621D	88960	
17	698198-1	HOUSING, 2ND STAGE COMPRESSOR	T6622D	89040	
18	698197-1	INLET ASSEMBLY, FIRST STAGE	T6623D	89040	
19	698194-1	DIFFUSER, 1ST STAGE COMPRESSOR	T6624D	89044	
20	372696	DUCT, AIR	T6625D	88060	
21	378854-30	SEAL, AIR	T6626D	88060	
22	379541	BOLT	T6627D	88060	
23	698195-1/-2/-6	HOUSING, 2ND STAGE DIFFUSER	T6628D	89040	
24	892290-1	DIFFUSER, 2ND STAGE COMPRESSOR	T6629D	89058	
25	241102	FITTING, OIL & BREATHER	T6630D	88057	
26	696659-160	HOUSING, BEARING	T6631D	88148	
27	968984-1	SUPPORT, SHROUD	T6632D	87255	
28	969008-1	FLANGES, BEARING HOUSING	T6633D	89056	
29	694040	OIL TUBE	T6634D	88023	
30	899431-1	TUBE, OIL BREATHER	T6635D	88237	
31	379663	SPRING, SHAFT	T6636D	88070	
32	74994	TUBE, SPRING	T6637D	88070	
33	695753-1	BEARING CARRIER	T6638D	88070	
34	692755-10	TEE	T6639D	88070	
35	692755-40	TEE ASSY, ORIFICED	T6640D	88070	
36	968095-35	WHEEL & SHAFT ASSEMBLY	T6645D	87287	
37	3606982-1	WHEEL & SHAFT ASSEMBLY	T6645D	87287	
38	379523	NUT, IMPELLER RETAINING	T6646D	88070	
39	379721	NUT, ROUND PLAIN	T6647D	88075	

40	698192-4	IMPELLER, 1ST STAGE COMPRESSOR	T6648D	87247	
41	693588	SPACER, TURBINE BEARING	T6649D	88228	
42	698193-4	IMPELLER, 2ND STAGE	T6650D	88076	
43	379658/-1	HOUSING, PLANETARY	T6659D	87287	
44	378916	CARRIER ASSEMBLY, PLANETARY	T6661D	97238	
45	977078-1	COVER, ACCESSORY CASE	T6663D	88096	
46	692070	FLANGE, MOUNT PLATE	T6664D	88096	
47	72906	BAFFLE, OIL PUMP	T6669D	88097	
48	372822-2	SHAFT ASSY, FAN DRIVE	T6674D	87291	
49	73276	WASHER, ROTATING ASSY.	T6676D	88060	
50	73097	NUT, FAN SHAFT	T6677D	88060	
51	379057	SHAFT, TORSION	T6678D	88060	
52	75285-4	SHAFT ASSY., ACCESSORY DRIVE	T6680D	87259	
53	73742	GEAR, MAIN DRIVE BEVEL	T6681D	88060	
54	74347	RING, GEAR RETAINING	T6684D	88060	
55	75331-4	GEAR ASSY, GENERATOR DRIVE	T6686D	87237	
56	73849	GEAR, FAN IDLER	T6688D	88060	
57	72004	GEAR, OVERSPEED DRIVE	T6690D	88060	
58	692531	GEAR, SPUR	T6692D	88060	
59	75334/ 370579	NUT	T6694D	88060	
60	75969	RETAINER, BEARING	T6696D	88060	
61	371728	BEARING HOUSING, GENERATOR	T6699D	88060	
62	73268	SHAFT, SWITCH	T6700D	88060	
63	372080	SPRING, FAN SHAFT	T6702D	88060	
64	75282	GEAR SET, PLANETARY	T6703D	88060	
65	74339	SHAFT, PLANETARY GEAR	T6704D	88060	
66	371551	SPUR GEAR ASSY.	T6707D	88061	
67	379485	RETAINER, COMPRESSOR BEARING	T6708D	88060	
68	73067-1/-2/-3	BEARING SPACER	T6709D	88060	
69	370344	SPACER	T6710D	88060	
70	371856	SHAFT ASSY., FAN IDLER GEAR	T6711D	88060	
71	75333	RETAINER, MAIN SHAFT SEAL	T6713D	88105	
72	3603685-3	SHAFT, FUEL PUMP DRIVE	T6714D	88056	
73	976345-1	TUBE, PNEU.	T6733D	89055	
74	976344-1	TUBE, PNEU.	T6734D	89055	
75	976346-1	TUBE, PNEU.	T6735D	89055	
76	976347-1	TUBE, PNEU.	T6736D	89055	
77	976340-1	TUBE, FUEL	T6737D	89055	
78	976341-1	TUBE, FUEL	T6738D	89055	
79	976343-1	TUBE, FUEL	T6739D	89055	
80	976355-1	TUBE, FUEL	T6740D	89055	
81	976349-1	TUBE, OIL	T6741D	89055	
82	976350-1	TUBE, OIL	T6742D	89055	
83	976351-1	TUBE, OIL	T6743D	89055	
84	976353-1	TUBE, OIL	T6744D	89055	
85	976354-1	TUBE, OIL	T6745D	89055	
86	379747	TUBE, OIL	T6746D	89055	13094A
87	976342-1	TUBE, PNEU.	T6747D	89055	13094A
88	372519	DUCT, AIR	T6748D	89055	13094A
89	969153-1	HOSE, FUEL	T6749D	89055	13094A
90	370116	PLATE RETAINER	T6809A	87270	13094A
91	75970	BUSHING, SLEEVE	T6838A	87337	13081A

2.6 MATERIAL HANDLING

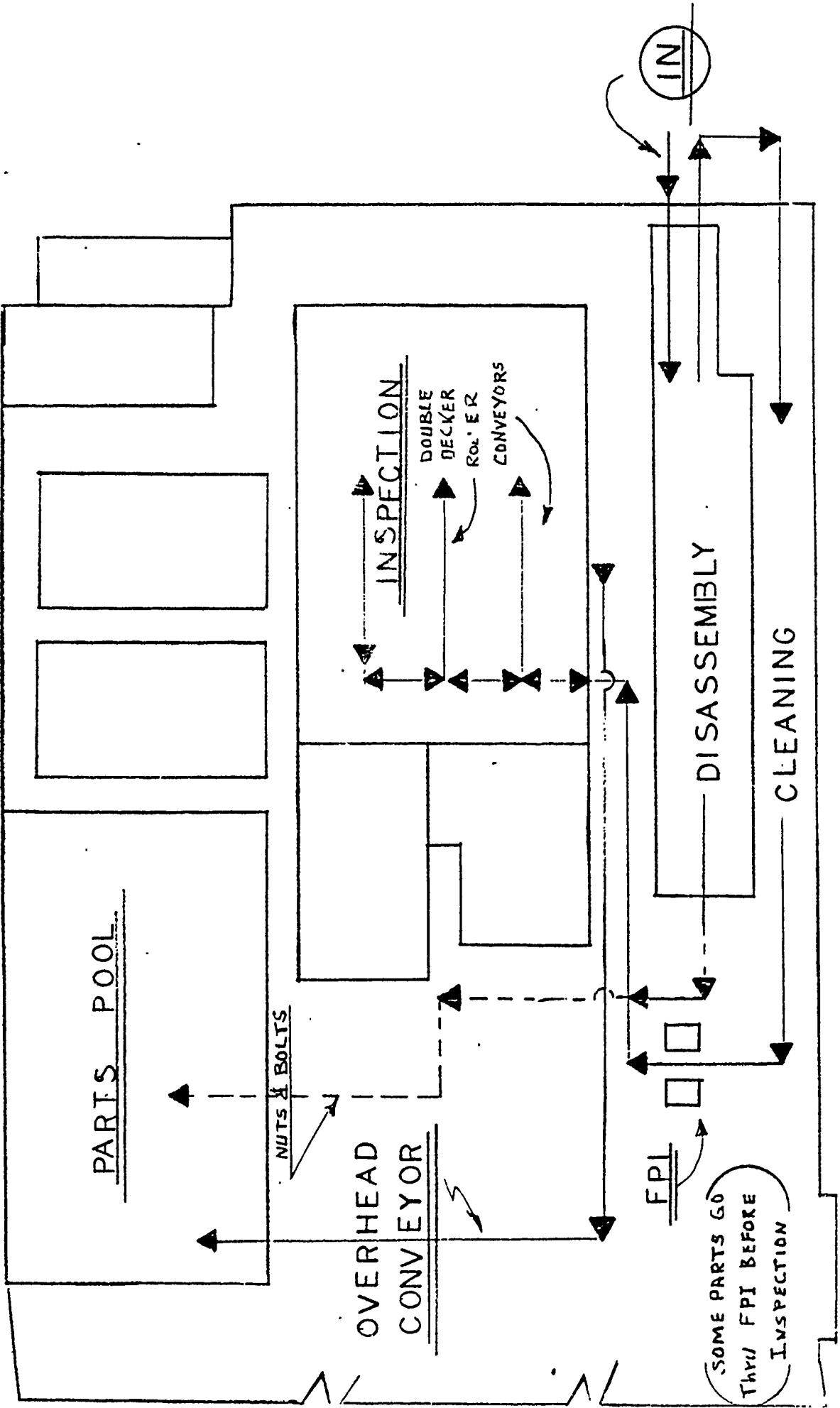
- * THE INSPECTION FUNCTION HAS TWO METHODS FOR MATERIAL HANDLING. FIRST, A DOUBLE DECKED ROLLER CONVEYOR SYSTEM INTERS THE INSPECTION AREA FROM THE CLEANING AND FLORESCENT PENETRANT WORK AREAS. THE SECOND METHOD OF MATERIAL HANDLING IS BY FOUR WHEEL CARTS MANUALLY PUSHED INTO THE AREA FOR THOSE PARTS ASSIGNED A CRITICAL PRIORITY. AFTER INSPECTION, PARTS LEAVE THE AREA VIA THE UPPER ROLLER CONVEYOR SYSTEM OF THE FOUR WHEEL CARTS.
- * THE CLEANING FUNCTION USES FOUR WHEEL CARTS TO MOVE PARTS THROUGH THE AREA. PLASTIC BASKETS AND HOISTS USED TO DIP PARTS IN THE LARGE DEGREASING TANKS. THE SMALL TANKS ARE MANUALLY OPERATED USING SMALL BASKETS AND HOOKS TO DIP PARTS.
- * THE DISASSEMBLY FUNCTION CURRENTLY USES PLASTIC BASKETS AND FOUR WHEEL CARTS TO

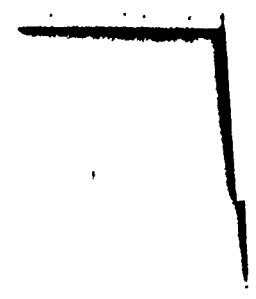
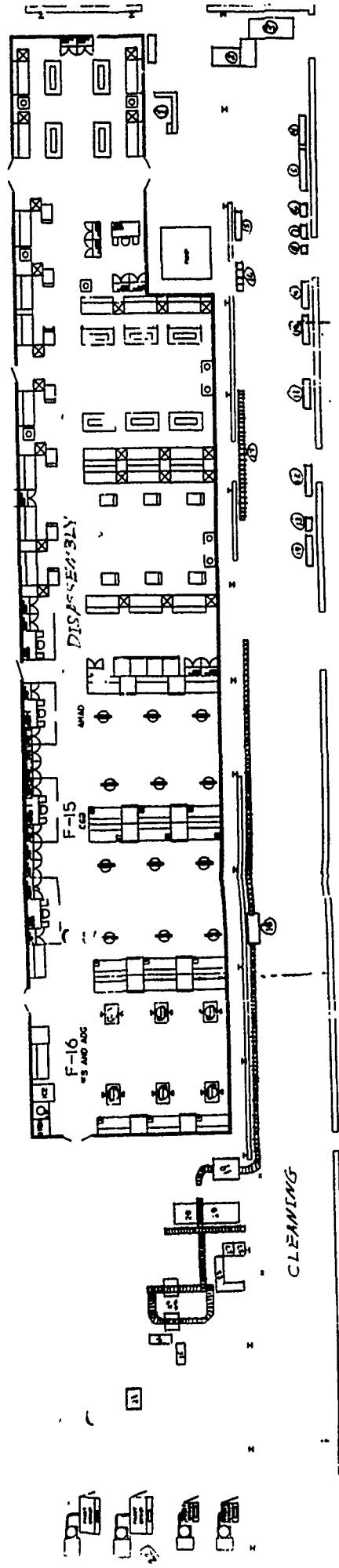
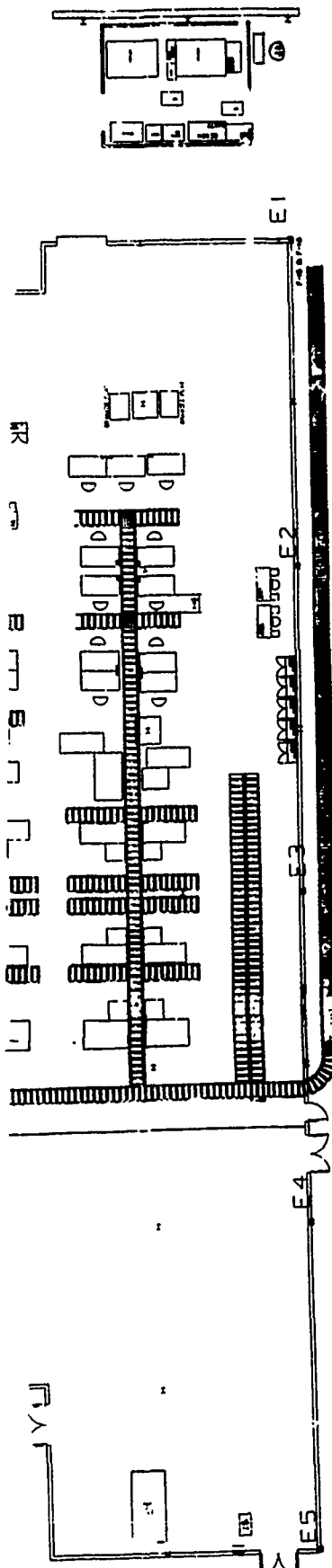
MOVE PARTS IN AND OUT THE AREA . THE DISASSEMBLY
AREA IS NOW BEING REMODELED SO A BUCKET CONVEYOR
SYSTEM CAN BE INSTALLED TO MOVE DISASSEMBLED
PARTS FROM INDIVIDUAL WORK STATIONS TO THE
CLEANING AREA WHICH IS LOCATED OUTSIDE THE MODULE.

2.7 STORAGE

MIATPSI HAS NO STORAGE AREA, EXCEPT FOR TOOL CABINETS AND PARTS IN QUEUE ON SHELVES, CONVEYOR, AND CARTS WAITING TO BE INSPECTED.

SA-ALC NORTH END BUILDING 329





SA/ITLC MATPSI CLEANING AREA

5/12/89

Jim Eaton (AS IS)

1. Superior's Desk
2. Processing Desk
3. Carbon Strip Tank
4. Corrosion Strip Tank
5. Hot Water Rinse
6. Degreaser Tank
7. Emergency Shower
8. Degreaser Tank
9. Hot Water Rinse
- 10.
11. } Grit Blasters
12. }
13. }
14. Unused Degreaser
15. Sonic Degreaser
16. 4 Degreaser Tanks
17. Unused Conveyor
18. Fluorescent Penetrant Line
19. Fluorescent Penetrant Oven
20. 2 Degreasers
21. Unused Grit Blaster
22. 4 Grit Blasters
23. Desk & Table
24. 2 - Fluorescent Penetrant Inspection Booths
25. Desk
26. Magnakleen Sonic Degreaser
27. 2 - Shop built Hydrostatic Testers
28. Desk
29. Magnetic Particle Inspection
30. Magnakleen Sonic Degreaser

MATPSI

3.0 80/20 ANALYSIS OF MATPSI

THE PRODUCTS HANDLED IN MATPSI ARE PROVIDED TO RCC'S MATPGB AND MATPSS VIA VARIOUS OTHER "BACKSHOP" RCC'S FOR ASSEMBLY INTO THE ITEMS PRODUCED BY THEM. THE LIST FOR MATPSI PCN'S THEREFORE CONSISTS OF THREE FROM MATPGB AND NINE FROM MATPSS AS SHOWN ON THE FOLLOWING PAGES.

3.1 VALIDATION OF 80/20 ANALYSIS

THE LIST OF ITEMS FOR MATPGB AND MATPSS ACCOUNT FOR MORE THAN 80 PERCENT OF THE WORKLOAD IN EACH RCC AND THEREFORE ARE VALID FOR MATPSI WHICH IS IN SUPPORT OF BOTH OF THESE RCC'S.

7:27 WEDNESDAY

MANAGE I7 50ED ALCSA 5019C I058435
 LISTING OF ITEMS SUBJECT TO REPAIR
 LISTING OF MSTR FILE

PS=MTDG

OBS	PCN	ANSN	NUMN	WSA	UC	DDPSH	Per FYIR	YTDIM	PI
1635	13095	2835012410074	B.M. GT85-180	A-M32A-60A	7600000	654.0	19 210.0 50	137340.0	4
1636	13094	2835012422189	B.C. GT85-397	A-M32A-60	7312300	540.0	17 133.0 50	71820.0	2
1637	13081	2835007990148	B.C. GT85-70A	MA1A GEN.	6802100	648.0	10 110.0 50	71280.0	2
1638	12494	2835011814262	M.A. GEARBOX	G00030050	1040300	150.0	57.0	8550.0	2
1639	00760	2835004945720	B.M. ACCESSAR.	9720-4T/S	199971	112.0	26.0	2912.0	0
1640	01510	2835007592303	M.A. ACCESSASS	C+141	915700	43.0	36.0	1548.0	0
1641	13255	2835009490524	B.C. ACCESSRY	VB52	644031	24.0	48.0	1152.0	0
1642	11489	2835010163048	B.M. ACCESSDR	GTCP85180LC	725120	73.0	14.0	1022.0	0
1643	13247	2835006825360	B.C. ACC ASSY	F+4	418600	68.0	4.0	272.0	0
1644	40855	3010002832410Y	M.A. CLUTCHAS	C+5A	125100	8.0	23.0	184.0	0
								296080.0	

$$\frac{280440}{296080} = 94.72\%$$

PS

MANAGE IT 150ED ALCSA 6019C T058435
 LISTING OF MSTR FILE

SI

PS=MTPS

DBS	PCN	ANSN	ANUS	NGUN	ENGR	WSA	UC	NDPSH	FYIR	YTDTIM
2124	08007	2835010345948	DK	STARTER	RK	F+15A-TF15A	5109998	833.0	419.0	349027.0
2125	08006	2835010912433	AD	JFSTARTER	RK	F+15A-TF15A	11845000	932.0	345.0	321540.0
2126	12712	2835012355249	ZD	A.D.G.	ML	F-16 A/B	6489200	1739.0	183.0	318237.0
2127	13096	2835011543533	PK	JFS	ML	F-16	2802280	916.0	221.0	202436.0
2128	03004	2835010207249	PK	LHGB	RS	F+15A-TF15A	3746225	595.0	219.0	130305.0
2129	10718	2995010389092	EGH	STARTER	RS	B52	1218200	355.0	340.0	120700.0
2130	04542	2995001727659	EGH	STARTER	KJ	B504G	3335275	256.0	428.0	109568.0
2131	10593	2995010776708	ME	STARTER	KJ	F004C	1789500	270.0	282.0	76140.0
2132	08005	2835010881009	YR	RHS	RK	F+15A-TF15A	1558000	573.0	124.0	71052.0
2133	40721	2995001134562		STARTER		EC135	929658	272.0	233.0	63376.0
2134	10148	2995010363713		STARTER		F4C	2536200	248.0	227.0	56296.0
2135	11064	1650010653500FS		HEATEXCH		F15A B C D	365375	80.0	468.0	37440.0
2136	12199	2995010489580		STARTER		A10	1046480	196.0	153.0	29988.0
2137	10149	2995004921489		STARTER		C141	1258969	170.0	176.0	29920.0
2138	10172	2995003829870		STARTER		F111	4305400	255.0	111.0	28305.0
2139	12351	2995011396642		STARTER		C/KC-135E	3172194	328.0	73.0	23944.0
2140	43134	2995009985303		STARTER		C005A	1405950	232.0	61.0	14152.0
2141	10150	2995003375116		STARTER		C130	630900	173.0	63.0	10899.0
2142	10015	2995008513212		STARTER		F111A	685485	179.0	54.0	9666.0
2143	10147	2995009513406		STARTER		C135	2515908	304.0	18.0	5472.0
2144	10150	2995003375145		STARTER		C130	630900	173.0	30.0	5190.0
2145	10167	2995000512983		STARTER		C135	802558	160.0	28.0	4480.0
2146	10155	2995003569466		STARTER		C135	1103734	162.0	24.0	3888.0
2147	10144	2995009201719		STARTER		C135	1363300	261.0	6.0	1566.0
2148	12235	2835011072202		FAN & AD		F15ACFT	86600.00	22.0	66.0	1452.0
2149	09264	2835010289688		GEN GAS		F-15	1958367	627.0	2.0	1254.0
2150	10170	2995000199640		CAPBREC		F4C	70850.00	42.0	21.0	882.0
2151	11652	2995003935338		CHAMBERA		B52H	134171	17.0	42.0	714.0
2152	47573	2995009959481		BREECHCP		F4C	70850.00	23.0	16.0	368.0
2153	11577	2835010387155		LAYSCHAFT		F15	133256	68.0	4.0	272.0
2154	11063	1650010732180FS		HEATEXCH		F15A B C D	279100	79.0	3.0	237.0
2155	47580	2995009246480		CAP		F+111	133400	27.0	6.0	162.0

$$\frac{1699005}{208928} = 83.742$$

PS

2028928.0

WORKLOAD DEFINITION MATRIX

ALC LOCATION SAN ANTONIO

INCC	WORKLOAD PERCENTAGE %				WORKLOAD DEFINED BY				GFI/TAPES/ U.S.E.D				TIME REQUIRED TO DEFINE W/L	REMARKS	
	MSTR	PDM	T	M	MHC STS	ALC STS	BORN	OTHER	COMP	OTHER	BORN	OTHER			
MADPSC															
MADPSA															
MADPSB															
MADPSP															
MATPGB 100															
MATPG4 NOT USED															
MATAS1 100															
MATPS3 100															

GREASY INCLUDED IN MATPGB

INSTRUCTIONS

1. WORKLOAD DEFINITION MATRIX

- A. WORKLOAD PERCENTAGE TO BE NUMERICAL UP TO 3 DIGITS
- B. ALL OTHER ENTRIES ARE CHECK MARKS
- C. TIME REQUIRED IN HOURS
- D. ENTER ANY REMARKS YOU FEEL WILL CLARIFY DATA

2. PROFILE SHEET DATA COMPLETION MATRIX

- A. WORK CONTROL DOCUMENT-HEADER
USE CHECK MARKS IN APPLICABLE COLUMNS

LEGEND E = ENGINEERING
 P = PLANNING
 S = SCHEDULING
 PC = PRODUCTION CONTROL
 PR = PRODUCTION
 O = OTHER (DEFINE IN REMARKS)

B. PROFILE SHEET INTERVIEW-HEADER

- JOB FUNCTION - USE CODES SHOWN ABOVE
- TIME TO INTERVIEW IS 1 ON 1 TIME IN HOURS
- MDAC TIME TO COMPLETE IS HOURS OVER THE 1 ON 1 INTERVIEW TIME

- C. ADD ANY REMARKS FOR THIS SHEET ON A SEPARATE SHEET.

All Site Leaders

*Please Complete By WED 11/23
And Fax to me.*

THANKS

*[Signature]
11-18-88.*

NOV 18 00 00 00 00 00
HQ
normal

18 November 1988

To: All Site Leaders T.O. #1

Attached: Data Collection History Matrix Sheets With Instructions

1. Please complete the attached Matrix Sheets for your ALC per the instructions. Should there be any questions, please call.

These completed Data Sheets will be used to respond to an action item arising from the HQ Program Review on Tuesday, 11-15-88. This action related to our discussion of data consistency, degree of availability, ease of attainment, etc. Our response is due on 12/1/88; therefore, I need these returned by Wednesday, 11/23/88.

Do not attempt to be 100% accurate in your man hour estimates and workload %. Do the best you can from memory, notes and your team members' inputs.

Our goal with the Matrix is to respond to HQ in a consistent format.

PLEASE DO NOT REVIEW THE DATA WITH ALC PERSONNEL.

Additional information that would be helpful.

Are you aware of any ALC functional area that is maintaining their own data bases manually or on PC's outside the recognized system? If so, where?

2. Be sure to record in your notebook those areas where you perceive "Quick Fixes" and "Future Focus Study Recommendations" so that our reports can be quickly assembled upon return to St. Louis.

Thanks! Keep up the good work. Our progress looks good. A Happy Thanksgiving to both You and Your Families!


Jerry

0011P/1

NOV 18 '88 8:29 MDAC-MDE C-17MSH ASL PO1 .:

TO: E. R. Mory
COMPANY: Co da Quinta
LOCATION: Lockland, TX
PHONE NO: _____

FAX NO.: 512-673-5918
CONFIRMATION: _____

FROM: Jerry Ruell
LOCATION: MDAC Bldg 92-2E Ext: 314-925-
FAX NO.: 314-925-3691
CONFIRMATION NO. CALL ADDRESSEE

NUMBER OF PAGES: LEAD + 4
DATE: 11/18/88 TIME OUT: _____

MCDONNELL DOUGLAS
CORPORATION

SA	11/16	MELH J. SANCHEZ / J. FOREMAN ESQUIVEL	3 25 HR	4 HRS
	11/16	LD MAN	6	6
	11/16	MECHANIC	3	6
	11/16	"	2	2
	11/18	"	3	8
			<hr/> 17	<hr/> 26

SB	11/14	CHRIS DOVALINA / A. VERDUGO	8 HRS	14 HRS
	11/16	GABRIEL BARRIOS / E. CORTES	2	4
	11/15	MECHANIC	3	5
	11/15	"	4	6
	11/17	"	1	3
	11/17	"	4	8
			<hr/> 22	<hr/> 26

SP	11/17	MECHANIC	1	1
	11/17	"	1	2
	11/17	SUPERVISOR	2	4
			<hr/>	<hr/>

SS	10/28	MECHANIC	4	8
	11/2	SUPERVISOR	2	4
	10/26	DAVID HIGHSMITH / Y. RIOS	14	20
	11/7	PETE CANTU / MARGARET JAMES	2	4
	10/27	RODRIQUEVARA / JOE VILLARREAL	16	8
	10/25	HARPO	8	20
	11/2	PLANNER	4	8
	11/8	PLANNER	4	8
	11/9	PLANNER	6	12
	10/29	PLANNER	2	32
			<hr/> 70	<hr/> 124

SI	10/26	JULIO AYALA / DAN HANWARD EMILIO CERVANTES / HENRY HALL MARGARET LITRE	16	16
			<hr/>	<hr/>

GB

11/1 BRENT CARRE/ELCIO AYALA
HENRY HALL
MARGARET LITTLE

24

10

11/1 "

24

16

10/26 RAWNER/MECHANICS

16

24

10/26 MECHANICS

16

16

80

72

4.0 DATA COLLECTION

SEVERAL DIFFERENT PROFILE DATA SHEETS WERE MADE AVAILABLE TO THE WORKING GROUP AT THE SITE FOR COLLECTION OF DATA .

THE DATA COLLECTED FROM MATPSS WAS FROM SHOP INTERVIEWS WITH THE SHOP FOREMEN PLANNERS, WORKLEADERS , MECHANICS , TESTERS AND FROM APPROPRIATE ALC PERSONNEL .

DATA HAS BEEN REGISTERED IN RESPECTIVE PROFILE SHEETS FOR THE MATPSS RCC PCN'S .

EXAMPLES OF THESE PROFILE SHEETS AND THEIR RESPECTIVE INSTRUCTIONS ON HOW TO PROPERLY FILL OUT THESE PROFILE SHEETS ARE ATTACHED .

**AFLC TECHNOLOGY INSERTION PROGRAM
PROFILE AND INSTRUCTION MASTERS**

APRIL 1, 1989

**PLEASE FORWARD ANY QUESTIONS, COMMENTS OR REVISION REQUESTS TO C. GONZALES
AT (314) 925-5395.**

AFLC TECHNOLOGY INSERTION PROGRAM "IN" AND "OUT" DATES INSTRUCTIONS

IN ORDER TO CAPTURE THE FLOW TIME ENCOUNTERED AT THE BEGINNING OF A PROCESS, (THE TIME BETWEEN WHEN AN RCC TAKES POSSESSION OF AN ITEM AND THE END OF THE FIRST OPERATION), AN OPERATION MUST BE ADDED TO THE OPERATION PROFILE. THIS WILL BE THE FIRST OPERATION, DESIGNATED AS OPERATION NUMBER "IN".

IN ORDER TO CAPTURE THE FLOW TIME ENCOUNTERED AT THE END OF A PROCESS, (THE TIME BETWEEN THE END OF THE LAST OPERATION AND THE TIME THE POSSESSION OF THE ITEM IS TRANSFERRED FROM THE RCC), AN OPERATION MUST BE ADDED TO THE OPERATION PROFILE. THIS WILL BE THE LAST OPERATION, DESIGNATED AS OPERATION "9999".

THIS DATA WILL BE ADDED (OPERATIONS "IN" AND "9999") TO EACH OPERATION PROFILE FOR EACH ITEM NUMBER. THE MANDATORY OCCURRENCE FACTOR FOR THESE OPERATIONS WILL ALWAYS BE 1.00. THE MANDATORY FLOW TIME WILL BE DETERMINED BY INTERVIEW. IF THE ALC ENGINEER ASSIGNED TO THE TI TEAM DETERMINES THAT MORE ACCURATE DATA IS AVAILABLE, THIS DATA CAN BE SUBSTITUTED.

THESE OPERATIONS WILL BE TRANSFERRED FROM THE OPERATION PROFILES TO THE LOTUS INPUT USING THE "IN" AND "9999" OPERATION NUMBERS.

THE OPERATION PROFILES PREVIOUSLY GATHERED MUST BE MODIFIED TO INCLUDE OPERATION NUMBERS "IN" AND "9999" AND THE DATA GATHERED. THIS WILL BE ACCOMPLISHED BY WRITING IN THE DATA WHILE GATHERING OTHER SUPPLEMENTARY DATA.

THIS INFORMATION MUST ALSO BE INCLUDED IN THE WCD HISTORY COLLECTION SYSTEM. WHEN BUILDING A MASTER FILE, ADD "IN" AS THE FIRST OPERATION AND "9999" AS THE LAST OPERATION FOR EACH MASTER. THE DATES TO BE ENTERED ON THE WCD DETAIL FILES CAN BE FOUND ON THE STAMPED WCD OR ON ACCOMPANYING DOCUMENTATION.

FOR WCD HISTORY ALREADY COLLECTED, THE "IN" AND "9999" DATA CAN BE COLLECTED ON "IN" DATE PROFILE AND THE "OUT" DATE PROFILE. THIS WILL BE ACCOMPLISHED BY SAMPLING ARCHIVED WCDs FOR ITEMS WHICH ALREADY HAVE HISTORY RESIDENT ON THE WCD HISTORY COLLECTION SYSTEM.

**AFLC TECHNOLOGY INSERTION PROGRAM
"IN" AND "OUT" DATES INSTRUCTIONS (CONTINUED)**

SITE LEADERS, PLEASE ATTACH A COPY OF THESE INSTRUCTIONS TO THE DOCUMENTATION FOR THE WCD HISTORY DATA SYSTEM, THE MASTER PROFILE PROGRAM GUIDE, AND THE OPERATION PROFILE INSTRUCTIONS.

ANY QUESTIONS ON THESE PROCEDURE WILL BE ANSWERED BY C. GONZALES. CONTACT THROUGH ST. LOUIS OFFICE (314) 925-5395.

AFLC TECHNOLOGY INSERTION PROGRAM OPERATION PROFILE INSTRUCTIONS

SOURCE

—

SM = McCLELLAN AIR BASE
 OC = TINKER AIR BASE
 SA = KELLY AIR BASE
 WR = WARNER ROBINS
 AIR BASE
 OO = HILL AIR BASE

-
-
- 80/20 LISTING
 - ITEM 14, 15 OR 10 OF WCD
 - G037E (PDM)
 - FORM 206 (T&M)
 - TOP LEFT CORNER OF THE 1ST PAGE OF THE WCD.
 - G037E WCD (PDM)
 - FORM 206 (T&M)
 - ITEM NO. 1 OF WCD.
 - G037E
 - FORM 206 PLAN DATE

LISTED IN COLUMNS UNDER ITEM 19 OF WCD.

DATA ITEM

DESCRIPTION

NAME OF PERSON COLLECTING DATA

NAME OF ALC WHERE THIS DATA IS COLLECTED

DATE

START DATE OF DATA COLLECTION

RCC

NAME OF RCC WHERE THIS DATA IS COLLECTED (6 CHARACTERS)

ITEM CODE

LIST ONLY ONE ITEM CODE FROM THE FOLLOWING:
 PCN = PRODUCTION CONTROL NO.
 NSN = NATIONAL STOCK NO.
 P/N = PART NO.
 SHOULD BE SAME ITEM CODE AS ON 80/20 LISTING (10 CHARACTERS) CIRCLE ITEM CODE USED.

WCD

NAME/NUMBER OF WORK CONTROL DOCUMENT (THE PRESENT WCD IN USE BY PRODUCTION) (8 CHARACTERS)

WCD DATE

WORK CONTROL DOCUMENT REVISION DATE (6 CHARACTERS)

OPERATION NO.

A THREE DIGIT NUMBER THAT SEQUENCE THE STEPS OF WORK BEING PERFORMED AS LISTED IN WCD (4 CHARACTERS). FROM 1 TO 4 NUMERIC DIGITS OR 1 TO 3 NUMERIC DIGITS WITH ONE ALPHA CHARACTER, RIGHT JUSTIFIED. DO NOT ENTER LEADING ZEROS. (ex. ENTER 10, NOT 010).

**AFLC TECHNOLOGY INSERTION PROGRAM
OPERATION PROFILE INSTRUCTIONS (CONTINUED)**

SOURCE
RCC WILL BE LISTED UNDER THE OPERATION NO. IN COLUMN 19 OF WCD.

DESCRIPTION

ENTER RCC NAME FOR THAT OPERATION. IF THIS RCC NAME IS NOT THE PRIMARY RCC, THE OPERATION WILL BE A BACK SHOP OPERATION. IF BACK SHOP, ENTER ONLY MANDATORY OCCURRENCE FACTOR AND MANDATORY FLOW HOURS. (8 CHARACTERS)

ITEM 20 OF WCD

DATA ITEM

RCC

OPERATION DESCRIPTION

ENTER AN ABBREVIATED DESCRIPTION OF WORK BEING PERFORMED. LIMIT FOUR CHARACTERS. USE THE FOLLOWING ABBREVIATIONS AND CREATE ADDITIONAL ABBREVIATIONS AS REQUIRED.

ABBREVIATION	DESCRIPTION
ASSY	ASSEMBLY
DIS	DISASSEMBLY
NDI	NON-DESTRUCTIVE INSPECTION
MOVE	TRAVEL BETWEEN OPERATIONS
PROC	PROCESS OPERATION
REP	REPAIR
REPL	REPLACE
MFG	MANUFACTURE
LOAD	LOAD
UNLD	UNLOAD
TEST	TEST
INSP	INSPECTION
REC	RECEIVE OF ITEM
SHIP	SHIPMENT OF ITEM
INFO	INFORMATION
MACH	MACHINING
CLN	CLEAN
IND	INDUCTION
SELL	SELL DATE

**AFCLC TECHNOLOGY INSERTION PROGRAM
OPERATION PROFILE INSTRUCTIONS (CONTINUED)**

DATA ITEM	DESCRIPTION	SOURCE
MANDATORY OCCURRENCE FACTOR	ENTER MANDATORY OCCURRENCE FACTOR FOR ALL THE OPERATIONS. (4 CHARACTERS, UP TO 3 DECIMAL PLACES)	INTERVIEWEE
OPERATION TYPE TRANSIT (T) SETUP (S) PROCESS (P)	<p>TRANSIT - THE MOVEMENT BETWEEN OPERATIONS. SETUP - MAKING READY OR PREPARING FOR THE PERFORMANCE OF A JOB OR OPERATION. MACHINE SETUP INVOLVES EQUIPING A MACHINE WITH APPROPRIATE ACCESSORIES, TOOLS AND FIXTURES, SETTING THE PROPER FEED, SPEED AND DEPTH OF CUT AND SO FORTH. IN MANUAL WORK, SETUP IS THE ARRANGEMENT PRIOR TO COMMENCING THE WORK, OF THE TOOLS, ACCESSORIES, COMPONENT PARTS AND DETAILS INVOLVED. IT ALSO INCLUDES THE TEARDOWN TO RETURN THE MACHINE OR WORK AREA TO ITS ORIGINAL OR NORMAL CONDITION. PROCESS - ACTUAL WORK PERFORMED ON THE ITEM. A PLANNED SERIES OF ACTIONS WHICH ADVANCES A MATERIAL OR PROCEDURE FROM ONE STAGE OF COMPLETION TO ANOTHER.</p>	INTERVIEWEE
MANDATORY FLOW HOURS	<p>MANDATORY FLOW HOURS REQUIRED TO COMPLETE AN OPERATION (INCLUDE TRANSIT TIME) (i.e., WAITING 24 HOURS MINIMUM FOR SEALANT TO CURE. (5 CHARACTERS WITH ONE DECIMAL PLACE) ALL BACK SHOP OPERATIONS MUST HAVE FLOW HOURS. IF THE TIMES ARE CONSTANT, ENTER WITHOUT A PERCENT. IF THE TIMES ARE VARIABLE DUE TO A CHANGING LEVEL OF EFFORT, ENTER VARIABLE TIMES WITH A PERCENT. SEE EXAMPLE FOR TIME REQUIRED.</p>	INTERVIEWEE
SKILL CODE/LEVEL	<p>INDICATE THE SKILL CODE/LEVEL REQUIRED TO PERFORM THE OPERATION (8 CHARACTERS) (i.e., SHEET METAL MECHANIC - SA WG 10 ENTER SA10)</p>	INTERVIEWEE/ SUPERVISOR

**AFCLC TECHNOLOGY INSERTION PROGRAM
OPERATION PROFILE INSTRUCTIONS (CONTINUED)**

SOURCE

DESCRIPTION

DATA ITEM

INTERVIEWEE

QTY

QUANTITY OF MANPOWER AT THE SKILL CODE/LEVEL REQUIRED TO PERFORM THE OPERATION (3 CHARACTERS)

TIME REQUIRED

INTERVIEWEE

THE TIME MANPOWER IS REQUIRED TO PERFORM THE OPERATION. IF THE TIMES ARE CONSTANT, ENTER TIME WITHOUT A PERCENT. IF THE TIMES ARE VARIABLE DUE TO A CHANGING LEVEL OF EFFORT, ENTER VARIABLE TIMES WITH A PERCENT. IF AN OPERATION IS PERFORMED :
 20% OF THE TIME IN 1 HOUR
 80% OF THE TIME IN 2 HOURS
 ENTER: TIME REQUIRED
 % HRS

20 1.0
 80 2.3

(5 CHARACTERS MAX. WITH ONE DECIMAL PLACE). TRIANGULAR DISTRIBUTIONS MAY ALSO BE USED, SUCH AS:

MIN. 4.0
 MAX. 10.0
 MEAN 6.0

INTERVIEWEE
 LOCATION OF EQUIP.
 EQUIPMENT LIST

EQUIPMENT CODE

ENTER ALPHANUMERIC CODE OF EQUIPMENT NEEDED TO PERFORM THE OPERATION. USE ALC CODES AND SHORTEN TO 8 CHARACTERS. THIS CODE WILL ALSO BE USED ON THE EQUIPMENT PROFILE SHEET. (8 CHARACTERS)

INTERVIEWEE

QTY

INDICATE THE QUANTITY OF EQUIPMENT NEEDED TO PERFORM OPERATION (3 CHARACTERS)

INTERVIEWEE

TIME REQUIRED

SEE TIME REQUIRED FOR MANPOWER

INTERVIEWEE

DATA SOURCE

PLEASE INDICATE THE SOURCE OF INFORMATION (i.e., PERSONNEL DATABASE, PAPER REPORT) ALSO LIST ANY PECULIARITIES ASSOCIATED WITH AN OPERATION NUMBER.

OPERATION PROFILE

NAME _____ ALC _____ DATE _____ RCC _____ SHEET _____ OF _____

OPERATION NUMBER	RCC	OPERATION DESCRIPTION	MANDATORY OCCURRENCE FACTOR	OPERATION TYPE	MANDATORY FLOW HOURS		SKILL CODE/LEVEL	MANPOWER		EQUIPMENT		DATA SOURCE COMMENTS
					%	HRS.		QTY.	%	HRS.	QTY.		%	HRS.
				TRANSIT								
				SETUP								
				PROCESS								
				TRANSIT								
				SETUP								
				PROCESS								
				TRANSIT								
				SETUP								
				PROCESS								
				TRANSIT								
				SETUP								
				PROCESS								
				TRANSIT								
				SETUP								
				PROCESS								

**AFCLC TECHNOLOGY INSERTION PROGRAM
PARALLEL PROCESS PROFILE INSTRUCTIONS**

SOURCE
—
SM = McCLELLAN AIR BASE
OC = TINKER AIR BASE
SA = KELLY AIR BASE
WI = WARNER ROBINS
AIR BASE
OO = HILL AIR BASE

DESCRIPTION
NAME OF PERSON COLLECTING DATA
NAME OF ALC WHERE THIS DATA IS COLLECTED

DATA ITEM

NAME

ALC

START DATE OF DATA COLLECTION
NAME OF RCC WHERE THIS DATA IS COLLECTED (6 CHARACTERS)

DATE

RCC

LIST ONLY ONE ITEM CODE FROM THE FOLLOWING:
PCN = PRODUCTION CONTROL NO.
NSN = NATIONAL STOCK NO.
P/N = PART NO.
SHOULD BE SAME ITEM CODE AS ON 80/20 LISTING
(18 CHARACTERS) CIRCLE ITEM CODE USED.

ITEM CODE

**NAME/NUMBER OF WORK CONTROL DOCUMENT (THE PRESENT
WCD IN USE BY PRODUCTION) (8 CHARACTERS)**

**PARENT
WCD**

WORK CONTROL DOCUMENT REVISION DATE (6 CHARACTERS)

**PARENT
WCD DATE**

**A THREE DIGIT OPERATION NUMBER IN THE PARENT WCD, WHICH
REPRESENTS THE START OF A PARALLEL PROCESS. THE PARALLEL
PROCESS WILL BEGIN AT THE END TIME OF THE "BEGINNING
OPERATION".**

**BEGINNING
OPERATION NO.**

- 80/20 LISTING
- ITEM 14, 15 OR 16 OF WCD
- G037E (PDM)
- FORM 206 (T&M)
- TOP LEFT CORNER OF THE 1ST PAGE OF THE WCD.
- G037E WCD (PDM)
- FORM 206 (T&M)
- ITEM NO. 1 OF WCD.
- G037E
- FORM 206 PLAN DATE

**LISTED IN COLUMNS
UNDER ITEM 19 OF WCD.**

**AFLC TECHNOLOGY INSERTION PROGRAM
PARALLEL PROCESS PROFILE INSTRUCTIONS (CONTINUED)**

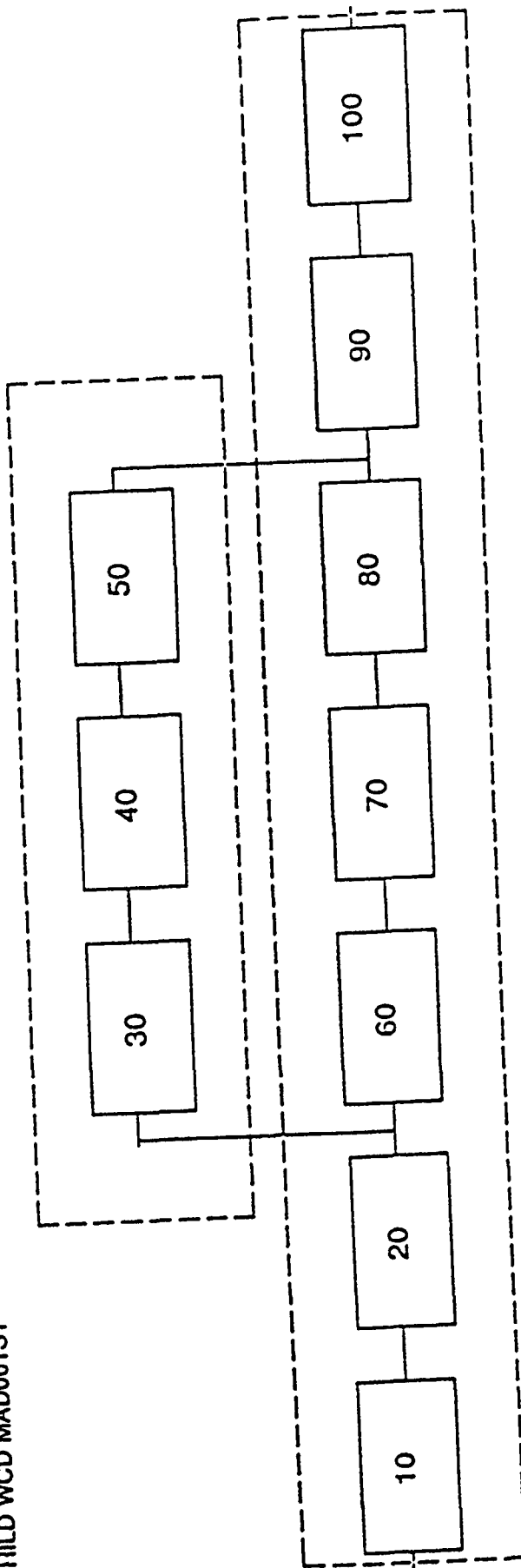
DATA ITEM	DESCRIPTION	SOURCE
ENDING OPERATION NO.	THE THREE DIGIT OPERATION NUMBER IN THE PARENT WCD, WHICH REPRESENTS THE END OF THE PARALLEL PROCESSING.	LISTED IN COLUMNS UNDER ITEM 19 OF WCD.
CHILD PROCESS INFORMATION • ITEM NUMBER	SAME AS ITEM CODE DESCRIPTION WHEN CHILD HARDWARE HAS A SEPARATE WCD. THIS ITEM NUMBER AND WCD MUST BE ENTERED ON THE WORKLOAD PROFILE.	---
• CHILD WCD	WHEN NO SEPARATE WCD IS PROVIDED - DEVELOP AN ITEM NO. BY USING THE PARENT'S ITEM CODE NO. FOLLOWED BY A SLASH AND S1 (FIRST SUB-COMPONENT) i.e., 1111A/S1	---
• CHILD WCD DATE	USE THE GIVEN WCD NAME/NUMBER WHEN A WCD IS PROVIDED FOR A GIVEN CHILD.	---
• CHILD WCD DATE	WHEN NO SEPARATE WCD IS PROVIDED - DEVELOP A WCD NAME/NUMBER BY USING A RE-ABBREVIATED SUFFIX OF THE ITEM NUMBER. i.e., ITEM NO. = 1111A/S1 (CHILD WCD = SUB 1) (8 CHARACTER)	---
• CHILD WCD DATE	USE THE GIVEN WCD DATE WHEN A WORK CONTROL DOCUMENT IS PROVIDED.	---
• CHILD WCD DATE	WHEN NO SEPARATE WCD IS PROVIDED - USE WCD DATE OF PARENT.	---

AFLC TECHNOLOGY INSERTION PROGRAM PARALLEL PROCESS PROFILE INSTRUCTIONS (CONTINUED)

IN THIS EXAMPLE, OPERATIONS 30, 40 AND 50 ARE BEING
PROCESSED IN PARALLEL WITH OPERATIONS 60, 70 AND 80.
THE BEGINNING OPERATION NUMBER IS 20.
THE ENDING OPERATION NUMBER IS 90.

CHILD ITEM NUMBER 1111A/S1
CHILD WCD MAD001S1

CHILD WCD



PARENT WCD

PARENT ITEM NO. 1111A
PARENT WCD MAD001

**AFLC TECHNOLOGY INSERTION PROGRAM
DISASSEMBLY/ASSEMBLY PROFILE INSTRUCTIONS**

SOURCE
 SM = McCLELLAN AIR BASE
 OC = TINKER AIR BASE
 SA = KELLY AIR BASE
 WR = WARNER ROBINS
 AIR BASE
 OO = HILL AIR BASE

DESCRIPTION

DATA ITEM

NAME OF PERSON COLLECTING DATA
 NAME OF ALC WHERE THIS DATA IS COLLECTED

NAME
 ALC

START DATE OF DATA COLLECTION
 NAME OF RCC WHERE THIS DATA IS COLLECTED (6 CHARACTERS)

DATE
 RCC

LIST ONLY ONE ITEM CODE FROM THE FOLLOWING:
 PCN = PRODUCTION CONTROL NO.
 NSN = NATIONAL STOCK NO.
 P/N = PART NO.
 SAME AS ON OPERATION PROFILE SHEET AND 80/20 LISTING.

ITEM CODE

NAME/NUMBER OF WCD (SAME AS ON OPERATION PROFILE SHEET)

WCD

REVISION DATA OF WCD (SAME AS ON OPERATION PROFILE SHEET).

WCD DATE

WCD - INTERVIEW

THE OPERATION NUMBER OF THE WCD IN WHICH A PART IS DISASSEMBLED OR REMOVED. REMOVAL OCCURS AT THE END OF AN OPERATION.

REMOVAL OPERATION NUMBER

WCD - INTERVIEW

THE OPERATION NUMBER OF THE WCD IN WHICH A PART IS ASSEMBLED OR INSTALLED. INSTALLATION OCCURS AT THE BEGINNING OF AN OPERATION. NOTE: IF INSTALLATION OPERATION IS NOT IN THE SAME WCD AS THE REMOVAL OPERATION, THE REMOVAL OPERATION WOULD BE LISTED ON ONE LINE WITH ITS WCD, AND THE INSTALLATION OPERATION WOULD BE LISTED ON A SEPARATE LINE WITH ITS WCD.

INSTALLATION OPERATION NUMBER

**AFLC TECHNOLOGY INSERTION PROGRAM
DISASSEMBLY/ASSEMBLY PROFILE INSTRUCTIONS (CONTINUED)**

DATA ITEM	DESCRIPTION	SOURCE
REMOVED/ DISASSEMBLED PART	PART THAT WAS REMOVED/DISASSEMBLED IN THE REMOVAL OPERATION NUMBER.	WCD
ITEM NUMBER	LIST ONLY ONE ITEM CODE FROM THE FOLLOWING: PCN = PRODUCTION CONTROL NUMBER NSN = NATIONAL STOCK NUMBER P/N = PART NUMBER CIRCLE ITEM CODE USED.	---
WCD	NAME/NUMBER OF WCD THAT IS USED TO PROCESS THE REMOVED ITEM NUMBER.	WCD
WCD DATE	REVISION DATE OF WCD.	WCD
SAME REMOVED ITEM INSTALLED INTO ASSY	IF THE REMOVAL ITEM MUST BE REPAIRED AND REINSTALLED INTO THE SAME END ITEM, ENTER YES. WHEN A SPARE PART CAN BE USED TO REPAIR THE END ITEM, ENTER NO.	INTERV'EWEE

NOTE: ALL ITEM NUMBERS AND THEIR WCD MUST BE LISTED ON THE WORKLOAD PROFILE.

AFLC TECHNICAL LOGY INSERTION PROGRAM MANPOWER PROFILE INSTRUCTIONS

DATA ITEM	DESCRIPTION	SOURCE
NAME	NAME OF PERSON COLLECTING DATA	---
ALC	NAME OF ALC WHERE THIS DATA IS COLLECTED	---
DATE	START DATE OF DATA COLLECTION	---
RCC	NAME OF RCC WHERE THIS DATA IS COLLECTED (6 CHARACTERS)	---
SKILL CODE/ LEVEL	IDENTIFY SKILL CODES AND THE LEVELS WITHIN RCC. ALL SKILL CODES AND LEVELS LISTED ON OPERATION PROFILE SHEETS MUST BE ENTERED. (EIGHT CHARACTERS) (e.g., SA - SKILL CODE, 00 - LEVEL - ENTER SA00)	SUPERVISOR
JOB DESCRIPTION	BRIEF DESCRIPTION OF JOB TO BE PERFORMED. e.g., AIRCRAFT SHEET METAL MECHANIC (9 CHARACTERS)	---
QUARTER	FY88 - AFLC's CALENDER WHICH STARTS OCTOBER (FOUR QUARTERS)	---
QUANTITY AVAILABLE	THE MANPOWER QUANTITY FOR EACH SKILL CODE AND LEVEL. ENTER THE QUANTITY AVAILABLE FOR WORK WEEK, WEEKENDS, AND HOLIDAYS PER SHIFT. (3 CHARACTERS)	RCC SECTION CHIEF
MANPOWER AVAILABLE (HOURS)	THE WORK STANDARD/MANPOWER FACTOR (WHICH ALCs USE FOR WORKLOAD NEGOTIATION) FOR EACH SKILL CODE AND LEVEL PER SHIFT. NUMBER OF HOURS AVAILABLE PER PERSON PER DAY, EXCLUDING TRAINING, TDY, ETC. (4 CHARACTERS WITH ONE DECIMAL PLACE)	RCC SECTION CHIEF

AFLC TECHNOLOGY INSERTION PROGRAM MANPOWER PROFILE INSTRUCTIONS (CONTINUED)

SOURCE
RCC SECTION
CHIEF

DESCRIPTION

MANPOWER SKILL CODE/LEVEL THAT CAN BE USED IN PLACE OF THE SPECIFIED MANPOWER SKILL CODE/LEVEL. USE THE SAME CODE AS IN OPERATION PROFILE. IN A SITUATION WHERE A SKILL/LEVEL CAN SUBSTITUTE FOR ANOTHER SKILL LEVEL FOR SAME OPERATIONS BUT NOT FOR OTHERS, THE TECHNIQUE AS SHOWN IN THE FOLLOWING EXAMPLE CAN BE USED.

EXAMPLE: SA08 IS USED IN 4 OPERATIONS (10, 20, 30, 40) AND CAN BE SUBSTITUTED BY SA10 IN OPERATIONS (10, 20 AND 40). THIS CAN BE CODED BY USING SA08 AS THE SKILL CODE FOR OPERATION 10, 20 AND 40 AND USING A PSEUDO NAME SA08A FOR OPERATION 30. THEN IN YOUR MANPOWER TABLE, THE FOLLOWING WOULD BE ENTERED.

DATA ITEM

ALTERNATE SKILL
CODE/LEVEL

SKILL CODE/LEVEL

ALTERNATE
SKILL CODE/LEVEL

SA08
SA08

SA08A (LEAVE QTY BLANK OR 0)

SINCE SA08A IS ENTERED WITH A QTY OF 0, IT WILL IMMEDIATELY USE THE ALTERNATE WHICH IS SA08.

MANPOWER PROFILE

NAME _____ ALC _____ DATE _____ RCC _____ SHEET _____ OF _____

SKILL CODE/LEVEL	JOB DESCRIPTION	QUARTER	QUANTITY AVAILABLE						MANPOWER AVAILABLE (FY2005)						ALTERNATE SKILL CODE/LEVEL				
			WORK WEEK		WEEKEND		HOLIDAYS		WORK WEEK		WEEKEND		HOLIDAYS						
			1	2	3	4	1	2	3	4	1	2	3	4		1	2	3	4
		1																	
		2																	
		3																	
		4																	
		1																	
		2																	
		3																	
		4																	
		1																	
		2																	
		3																	
		4																	
		1																	
		2																	
		3																	
		4																	

AFLC TECHNOLOGY INSERTION PROGRAM EQUIPMENT PROFILE INSTRUCTIONS

SOURCE

— SM = McCLELLAN AIR BASE
 — OC = TINKER AIR BASE
 SA = KELLY AIR BASE
 WR = WARNER ROBINS AIR BASE
 OO = HILL AIR BASE

— INTERVIEWEE
 — LOCATION OF EQUIP.
 EQUIPMENT LIST
 LAYOUT DRAWINGS

— G017C INTERVIEWS
 — EQUIPMENT SPECS.
 G004i - INSPECTION
 AND CALIBRATION
 REPORT

DATA ITEM	DESCRIPTION
NAME	NAME OF PERSON COLLECTING DATA
ALC	NAME OF ALC WHERE THIS DATA IS COLLECTED
DATE	START DATE OF DATA COLLECTION
RCC	NAME OF RCC WHERE THIS DATA IS COLLECTED (6 CHARACTERS)
EQUIPMENT CODE	ENTER ALPHANUMERIC CODE OF EQUIPMENT. USE ALC CODES AND SHORTEN TO 8 CHARACTERS. KEEP SAME CODE AS USED ON OPERATION PROFILE SHEET.
EQUIPMENT TYPE/ DESCRIPTION	ENTER A NOUN TO DESCRIBE EQUIPMENT (9 CHARACTERS)
QTY PER SHIFT	ENTER QUANTITY OF EQUIPMENT AVAILABLE PER SHIFT (3 CHARACTERS)
PREVENTIVE MAINTENANCE	DOWNTIME THAT IS SCHEDULED FOR PREVENTIVE MAINTENANCE ON THE EQUIPMENT LIST

**AFLC TECHNOLOGY INSERTION PROGRAM
EQUIPMENT PROFILE INSTRUCTIONS (CONTINUED)**

DATA ITEM	DESCRIPTION	SOURCE
FREQ	INDICATE THE FREQUENCY THAT PREVENTIVE MAINTENANCE IS PERFORMED IN DAYS. (3 CHARACTERS)	---
SHIFT	INDICATE ON WHICH SHIFT PREVENTIVE MAINTENANCE IS PERFORMED. (1, 2, 3)	---
DOWNTIME	THE TIME REQUIRED TO PERFORM PREVENTIVE MAINTENANCE (i.e., ALIGNMENT, TESTING, CALIBRATION, MINOR REPAIR, ETC. - IN HOURS) (5 CHARACTERS WITH 1 DECIMAL PLACE)	G017C INTERVIEWS EQUIPMENT SPECS. G004i - INSPECTION AND CALIBRATION REPORT
UNSCHEDULED BREAKDOWN REPAIR TIME	EQUIPMENT DOWNTIME THAT IS NOT SCHEDULED. BREAKDOWN/ EQUIPMENT FAILURES	G017C TROUBLE CALL REPORTS, EQUIPMENT OPERATORS, EQUIPMENT SPECS.
MTBF	MEAN TIME BETWEEN FAILURES. AVERAGE TIME INTERVAL BETWEEN FAILURES IN DAYS (3 CHARACTERS)	G017C TROUBLE CALL REPORTS, EQUIPMENT OPERATORS, EQUIPMENT SPECS.
MTTR	MEAN TIME TO REPAIR AVERAGE TIME TO REPAIR FAILED EQUIPMENT - HOURS WITH ONE DECIMAL PLACE (5 CHARACTERS)	G017C TROUBLE CALL REPORTS, EQUIPMENT OPERATORS, EQUIPMENT SPECS.
PERCENT USED FOR OTHER RCC	INDICATE THE PERCENT THAT THE EQUIPMENT IS BEING USED BY OTHER RCCS.	INTERVIEWEE
ENVELOP UNITS MIN/MAX	MINIMUM QUANTITY OF ENVELOP UNITS EQUIPMENT CAN PROCESS. MAXIMUM QUANTITY OF ENVELOP UNITS EQUIPMENT CAN PROCESS. (4 CHARACTERS)	---

**AFLC TECHNOLOGY INSERTION PROGRAM
EQUIPMENT PROFILE INSTRUCTIONS (CONTINUED)**

SOURCE
INTERVIEWEE

DESCRIPTION

EQUIPMENT THAT CAN BE USED IN PLACE OF THE EQUIPMENT LISTED IN THE EQUIPMENT CODE COLUMN. ENTER ALPHANUMERIC CODE OF EQUIPMENT. USE ALC CODES AND SHORTEN TO 8 CHARACTERS. KEEP SAME CODE AS USED ON OPERATION PROFILE SHEET.

DATA ITEM

ALTERNATE
EQUIPMENT

PLEASE INDICATE THE SOURCE OF THE INFORMATION (i.e., PERSONNEL, DATABASE, PAPER REPORT). ALSO LIST ANY OTHER PECULIARITIES THAT MAY BE HELPFUL.

DATA SOURCE

AFLC TECHNOLOGY INSERTION PROGRAM WORKLOAD PROFILE INSTRUCTIONS

DATA ITEM	DESCRIPTION	SOURCE
NAME	NAME OF PERSON COLLECTING DATA	—
ALC	NAME OF ALC WHERE THIS DATA IS COLLECTED	—
DATE	START DATE OF DATA COLLECTION	—
RCC	NAME OF RCC WHERE THIS DATA IS COLLECTED (6 CHARACTERS)	—
ITEM CODE	USE SAME ITEM CODE AS IN OPERATION PROFILE P/N, PCN OR NSN.	OPERATION PROFILE
AIRCRAFT MODEL	LIST THE AIRCRAFT MODEL ON WHICH THIS ITEM IS USED.	OPERATION PROFILE
WCD	LIST WCD NAME/NUMBER. IF WCD HAS DIS/ASS OR PARALLEL OP. WCD ASSOCIATED WITH IT, LIST THEM BELOW THE PARENT WCD IN THE ORDER WHICH THEY ARE PROCESSED.	SUPERVISOR
WORKLOAD TYPE	ENTER ONE OF THE FOLLOWING WORKLOAD NUMBERS: MISTR - 4, PDM - 0, T - 8, M - 7, MICAP - 2	SUPERVISOR
FLOATING STOCK	NUMBER OF ITEMS THAT ARE AVAILABLE FOR USE.	G019C, G004L G037E
ACTUAL PRODUCTION PER QUARTER	ACTUAL OUTPUTS OF END ITEMS FOR RCC PER QUARTER OF FY88. (4 CHARACTERS)	SUPERVISOR
NUMBER OF ENVELOP UNITS	ENTER ENVELOP UNIT SIZE (2 CHARACTERS)	E046B, G037E, G004L
MAXIMUM W.I.P.	MAXIMUM QUANTITY OF END ITEMS PER ITEM CODE THAT CAN BE IN PROCESS FOR REPAIR AT ANY ONE TIME, GIVEN THE "AS-IS" WORKLOAD MIX.	
STANDARD HOURS	THE HOURS ALLOCATED BY RCC TO PERFORM THE OPERATIONS IN THE REPAIR CYCLE.	

AFLC TECHNOLOGY INSERTION PROGRAM ENVELOP INSTRUCTIONS

ENVELOP UNITS ARE CONSIDERED AS THE EVALUATION OF BATCH PROCESS EQUIPMENT TO DETERMINE THE MIN/MAX NUMBER OF PARTS THAT CAN BE PROCESSED AT ONE TIME.

DATA ITEM	DESCRIPTION
ALC	NAME OF ALC
RCC	NAME OF RCC (6 CHARACTERS)
WCD	NAME/NUMBER OF WORK CONTROL DOCUMENT (SAME AS ON OPERATION PROFILE) (8 CHARACTERS)
WCD DATE	WORK CONTROL DOCUMENT REVISION DATE. (6 CHARACTERS) SAME AS ON OPERATION PROFILE
EQUIPMENT CODE	ENTER ALPHANUMERIC CODE OF PROCESS EQUIPMENT. USE ALC CODES AND SHORTEN TO 8 CHARACTERS
TOTAL VOLUME OF EQUIPMENT IN CU. FT.	TOTAL USABLE VOLUME OF PROCESS EQUIPMENT IN CU. FT. ROUND TO NEAREST TENTH.
LIST OF PARTS BY ITEM CODE	LIST THE ITEM CODE OF EACH TYPE OF PART THAT IS PROCESSED BY THE LISTED EQUIPMENT.
VOLUME IN CU. FT.	DETERMINE THE VOLUME OF THE PART IN CU. FT. INCLUDING FIXTURES. ROUND UP TO NEXT TENTH OF CU. FT.
UNIT VALUE	ASSIGN A UNIT VALUE OF ONE (1) TO THE SMALLEST PART DETERMINE THE UNIT VALUE OF THE OTHER PARTS LISTED IN DIRECT RELATION TO THE SMALLEST PART. ROUND EACH NUMBER UP TO THE NEAREST WHOLE NUMBER.

**AFLC TECHNOLOGY INSERTION PROGRAM
ENVELOP INSTRUCTIONS (CONTINUED)**

DATA ITEM	DESCRIPTION
MINIMUM	MINIMUM NUMBER OF PARTS THAT CAN BE PLACED IN THE EQUIPMENT FOR PROCESSING ON A PRACTICAL BASIS (USE IE JUDGEMENT)
MAXIMUM	MAXIMUM NUMBER OF PARTS THAT CAN BE PLACED IN THE EQUIPMENT FOR PROCESSING.

OPERATION PROFILE SAS

SHEET 2 OF

NAME	ITEM CD	PCN	04542A	ALC SA	WCD TA2020	WCD DATE	88188	RCC	OPER DISC	HIST OCCR	MAND TYPE	OPER TYPE	MAND F	SKILL CD/LVL	QTY	% HRS	EQUIP CODE	QTY	% HRS	NOTES	
	50																				
	50																				
	50																				
	50																				
	50																				
	50																				

EVELYN HALL
925-5330
FORMAN ALTRNATE

	60																				
	60																				
	70																				
	70																				
	70																				
	80																				

Route

OPERATION PROFILE SAS

NAME	ALC SA	DATE	RCC MATPSI	NOTES
ITEM CD PCN 04542A	WCD TA2020	WCDDATE 88188		
OPER NUMB	HIST MAND OPER MAND	SKILL CD/LVL	EQUIP CODE	
RCC	OCGR TYPE F HRS	CD/LVL	QTY	% HRS
80 MATPSI DIS	S			
8 MATPSI DIS	P	MG-3	1	0.5
90 MATPSI DIS	T			
90 MATPSI DIS	S			
90 MATPSI DIS	10 P	8602BA05 -MG-3	1	0.2
100 MATPSI DIS	10 T	8602BA05	1	0.5
100 MATPSI DIS	S			
100 MATPSI DIS	T	MG-3	1	0.5

Port & Route just to cleaning

Left Hand
 Head
 Disassy

BAF

8:18 TUESDAY, MARCH 28, 1989 8

SHEET 1 OF 21

SAS I
 RCC MATPS\$

OPERATION PROFILE
 DATE 4-10-89

ALC SA WCD TA007K WCD DATE 88141

NAME RIP

ITEM CD PCN 08004A

OPER NUMB RCC OPER HIST MAND OPER MAND SKILL

DESC OCCR TYPE F.HRS CD/LVL QTY % HRS EQUIP CODE

10 MATPS\$ DIS

10 MATPS\$ DIS

10 MATPS\$ DIS

20 MATPS\$ DIS

20 MATPS\$ DIS

20 MATPS\$ DIS

20 MATPS\$ DIS

30 MATPS\$ DIS

30 MATPS\$ DIS

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30 MATPS\$ DIS

30 MATPS\$ DIS

30 MATPS\$ DIS

30 MATPS\$ DIS

30 MATPS\$ DIS

1.2
0.1

1.2
0.1

0.1 0.1

0.1 0.1

0.2 0.2

0.2 0.2

0.2 A-14
A2-14

A-15
A2-15

A-14
A2-14

A-15
A2-15

A-14
A2-14

A-15
A2-15

8602BA08
WG-8

8602BA08
WG-8

8602BA08
WG-8

~~MATPS\$ DIS~~

~~MATPS\$ DIS~~

~~MATPS\$ DIS~~

~~MATPS\$ DIS~~

~~MATPS\$ DIS~~

~~MATPS\$ DIS~~

~~MATPS\$ DIS~~

~~MATPS\$ DIS~~

~~MATPS\$ DIS~~

~~MATPS\$ DIS~~

~~MATPS\$ DIS~~

~~MATPS\$ DIS~~

~~MATPS\$ DIS~~

~~MATPS\$ DIS~~

~~MATPS\$ DIS~~

OPERATION PROFILE

NAME _____ ALC SA _____ DATE _____ SAS _____
 ITEM CD PCN 08004A WCD TA007K WCD DATE 88141 RCC MATPS# I

OPER NOMB RCC OPER HIST MAND OPER MAND SKILL EQUIP CODE
 NOMB DESC OCCR TYPE F HRS CD/LVL QTY X HRS QTY X HRS NOTES

100 MATPSS DIS
 60 MATPSS DIS
 I
 80 MATPS\$ DIS 1.0 P 8602BA08 1 0.2 A-14
 80 MATPS\$ DIS P A-15
 80 MATPSI DIS P A-28

90 MATPSS DIS
 80 MATPSS DIS
 I
 90 MATPS\$ DIS 1.0 P 8602BA08 1 0.2 A-14
 90 MATPS\$ DIS P A-15
 90 MATPSI DIS P A-28

100 MATPSS DIS
 90 MATPSS DIS
 I
 90 MATPS\$ DIS 1.0 P 8602BA08 1 0.2 A-14
 90 MATPS\$ DIS P A-15
 90 MATPSI DIS P A-28

100 MATPSS DIS
 100 MATPSS DIS
 I
 100 MATPS\$ DIS 1.0 P 8602BA08 1 0.2 A-14
 100 MATPS\$ DIS P A-15
 100 MATPSI DIS P A-28

100 MATPSS DIS
 100 MATPSS DIS
 I
 100 MATPS\$ DIS 1.0 P 8602BA08 1 0.2 A-14
 100 MATPS\$ DIS P A-15
 100 MATPSI DIS P A-28

100 MATPSS DIS
 100 MATPSS DIS
 I
 100 MATPS\$ DIS 1.0 P 8602BA08 1 0.2 A-14
 100 MATPS\$ DIS P A-15
 100 MATPSI DIS P A-28

SAS

OPERATION PROFILE

SHEET 4 OF

RCC MATPS I

NAME _____

DATE _____

ALC SA _____

WCD TA007K

WCD TA007K

WCD TA007K

WCD TA007K

WCD TA007K

ITEM CD PCN 08004A

OPER NMBR

RCC

OPER HIST MAND OPER SKILL

DESC OCCR TYPE F HRS CD/LVL

QTY

% HRS

QTY

% HRS

QTY

% HRS

NOTES

8602BA08

8602BA08

8602BA08

8602BA08

8602BA08

8602BA08

8602BA08

8602BA08

8602BA08

8602BA08

8602BA08

8602BA08

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8602BA08

8602BA08

OPERATION PROFILE SAS

SHEET 5 OF

RCC MATPS I

DATE

ALC SA

NAME

ITEM CD PCN 08004A WCD TA007K WCD DATE 88141

OPER NUMB RCC OPER DESC HIST MAND OPER MAND SKILL CD/LVL QTY X HRS EQUIP CODE

150 MATPS DIS 1.0 P 8608 BA08 1 0.1 A-14

150 MATPSI DIS 1.0 P 8608 BA08 1 0.1 A-14

150 MATPSI DIS 1.0 P 8608 BA08 1 0.1 A-15

150 MATPSI DIS 1.0 P 8608 BA08 1 0.1 A-39

160 MATPS DIS 1.0 P 8608 BA08 1 0.1 A-14

160 MATPSI DIS 1.0 P 8608 BA08 1 0.1 A-14

160 MATPSI DIS 1.0 P 8608 BA08 1 0.1 A-15

170 MATPS DIS 1.0 P 8608 BA08 1 0.1 A-39

170 MATPS DIS 1.0 P 8608 BA08 1 0.1 A-14

170 MATPSI DIS 1.0 P 8608 BA08 1 0.1 A-14

170 MATPSI DIS 1.0 P 8608 BA08 1 0.1 A-15

180 MATPS DIS 1.0 P 8608 BA08 1 0.1 A-14

180 MATPSI DIS 1.0 P 8608 BA08 1 0.1 A-14

180 MATPSI DIS 1.0 P 8608 BA08 1 0.1 A-15

190 MATPS DIS 1.0 P 8608 BA08 1 0.1 A-14

190 MATPSI DIS 1.0 P 8608 BA08 1 0.1 A-14

190 MATPSI DIS 1.0 P 8608 BA08 1 0.1 A-15

190 MATPS DIS 1.0 P 8608 BA08 1 0.1 A-14

190 MATPSI DIS 1.0 P 8608 BA08 1 0.1 A-14

190 MATPSI DIS 1.0 P 8608 BA08 1 0.1 A-15

SAS

OPERATION PROFILE

SHEET 6 OF

RCC MATPS# I

NAME _____

DATE _____

ALC SA _____

ITEM CD PCN 08004A

WCD TA007K

WCDDATE 88141

OPER NUMB	RCC	OPER DESC	HIST	MAND	OPER	MAND	SKILL	CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
190	MATPS#	DIS					8608BA08		1		0.1	A-14	1			
190	MATPSI	DIS										A-15				
190	MATPS#	DIS														
200	MATPS#	DIS					8608BA08		1		0.1	A-14	1			
200	MATPSI	DIS										A-15				
210	MATPS#	DIS														
210	MATPS#	DIS					8608BA08		1		0.1	A-14	1			
210	MATPSI	DIS										A-15				
220	MATPS#	DIS														
220	MATPS#	DIS					8608BA08		1		0.2	A-14	1			
220	MATPSI	DIS										A-15				
230	MATPS#	DIS														
230	MATPS#	DIS					8608BA08		1		0.2	A-14	1			
230	MATPSI	DIS										A-15				

SAS

OPERATION PROFILE

NAME _____ ALC SA _____ DATE _____
 ITEM CD PCN 08004A WCD TA007K WCD DATE 88141

OPER NUMB RCC I MATPS\$ DIS . . . P . . .
 OPER HIST MAND OPER SKILL EQUIP
 DESC OCCR TYPE F HRS CD/LVL QTY % HRS CODE A-1 QTY % HRS NOTES
 230 MATPS\$ DIS . . . P . . .
 240 MATPS\$ DIS . . . P . . .
 240 MATPSI DIS . . . P . . .
 250 MATPS\$ DIS . . . P . . .
 250 MATPSI DIS . . . P . . .
 260 MATPS\$ DIS . . . P . . .
 260 MATPSI DIS . . . P . . .
 260 MATPS\$ DIS . . . P . . .
 260 MATPSI DIS . . . P . . .

240 MATPS\$ DIS . . . P . . .
 240 MATPSI DIS . . . P . . .
 250 MATPS\$ DIS . . . P . . .
 250 MATPSI DIS . . . P . . .
 260 MATPS\$ DIS . . . P . . .
 260 MATPSI DIS . . . P . . .
 260 MATPS\$ DIS . . . P . . .
 260 MATPSI DIS . . . P . . .

8602BA08

8602BA08

8602BA08

A-14
 A-15

A-14
 A-31
 A-15
 A2-474

A-6
 A2-479
 A-14
 A-15
 A2-474

0.2
 0.2

0.2
 0.2

0.2
 0.2

RCC MATPS\$ I

DATE

WCD DATE

MAND F HRS

SKILL CD/LVL

QTY

% HRS

EQUIP CODE

A-1

QTY

% HRS

NOTES

OPERATION PROFILE SAS
 ALC SA _____ DATE _____
 WCD TA007K WCDDATE 88141
 RCC MATPS# I SHEET 9 OF _____

NAME	ITEM CD	PCN	OPER	HIST	MAND	OPER	MAND	SKILL	EQUIP	QTY	%	HRS	QTY	%	HRS	NOTES
	300	MATPS#	DIS													
	300	MATPS#	DIS	I	1.0	P			A-14	1	0.2	0.2	1	0.2	0.2	
	300	MATPS#	DIS	I		P			A-12	1		0.2	1		0.2	
	300	MATPS#	DIS			P			A-15	1		0.2	1		0.2	
	300	MATPS#	DIS			P			A-37	1		0.2	1		0.2	

	310	MATPS#	DIS													
	310	MATPS#	DIS													
	310	MATPS#	DIS	I	1.0	P			A-14	1	0.1	0.1	1	0.1	0.1	
	310	MATPS#	DIS	I		P			A-15	1		0.1	1		0.1	

	320	MATPS#	DIS													
	320	MATPS#	DIS	I	1.0	P			A-14	1	0.1	0.1	1	0.1	0.1	
	320	MATPS#	DIS	I		P			A-15	1		0.1	1		0.1	

	330	MATPS#	DIS													
	330	MATPS#	DIS	I	1.0	P			A-14	1	0.1	0.1	1	0.1	0.1	

SAS

OPERATION PROFILE

SHEET 10 OF 1

RCC MATPS I

NAME _____

ALC SA _____

WCD TA007K WCDDATE 88141

ITEM CD PCN 08004A

OPER NUMB RCC OPER DESC HIST MAND OPER MAND SKILL CD/LVL QTY % HRS

EQUIP CODE

QTY % HRS

RCC MATPS

NOTES

330 MATPS I DIS . . . P 1 . . . 0.1
 A-15
 A-14

340 MATPS DIS

340 MATPS DIS
 I
 340 MATPSI DIS
 P
 340 MATPSI DIS
 P
 340 MATPSI DIS
 P

350 MATPS DIS
 I
 350 MATPSI DIS
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 350 MATPSI DIS
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350 MATPS DIS
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38

SAS

OPERATION PROFILE

NAME _____

ALC SA _____

DATE _____

I

RCC MATPS\$

SHEET 13 OF

ITEM CD PCN 08004A WCD TA007K WCD DATE 88141

OPER HIST MAND OPER SKILL EQUIP
 CD/RCC DESC OCCR TYPE F HRS CD/LVL QTY % HRS CODE
 A-15
 A-12

NOTES

QTY 1 % HRS 0.2

430 MATPS\$ DIS

430 MATPS\$ DIS

430 MATPS\$ DIS 1.0 P

430 MATPS\$ DIS P

440 MATPS\$ DIS

440 MATPS\$ DIS

440 MATPS\$ DIS 1.0 P

440 MATPS\$ DIS P

440 MATPS\$ DIS P

450 MATPS\$ DIS

450 MATPS\$ DIS

450 MATPS\$ DIS 1.0 P

450 MATPS\$ DIS P

A-14
 A-12

A-15
 A-12

A-14
 A-12

A-15
 A-12

A-14
 A-12

A-15
 A-12

8609BA08
 WIG-8

8609BA08
 WIG-8

8609BA08
 WIG-8

OPERATION PROFILE SAS

NAME _____ ALC SA _____ DATE _____ RCC MATPS ^I SHEET 14 OF _____

ITEM CD PCN 08004A WCD TA007K WCD DATE 88141

OPER NUMB RCC OPER HIST MAND OPER MAND SKILL EQUIP CODE
 DESC OCCR TYPE F HRS CD/LVL QTY % HRS QTY % HRS NOTES

~~450~~ MATPS DIS *[scribble]*

~~460~~ MATPS DIS *[scribble]*

460 MATPS^I DIS . 1.0 P 1 0.2 A-24
~~A2-072~~

460 MATPS^I DIS 1 0.2 A-14
~~A2-073~~

460 MATPS^I DIS 1 0.2 A-15
~~A2-074~~

~~470~~ MATPS DIS *[scribble]*

~~470~~ MATPS DIS *[scribble]*

470 MATPS^I DIS . 1.0 P 1 0.1 A-24
~~A2-072~~

470 MATPS^I DIS 1 0.1 A-14
~~A2-073~~

470 MATPS^I DIS 1 0.1 A-15
~~A2-074~~

~~480~~ MATPS DIS *[scribble]*

~~480~~ MATPS DIS *[scribble]*

SAS

OPERATION PROFILE

RCC MATPS ±

NAME _____ ALC SA _____ DATE _____
 ITEM CD PCN 08004A WCD TA007K WCDDATE 88141

OPER NUMB	RCC	MATPS	DIS	HIST	MAND	OPER	MAND	OPER	SKILL	CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
480	I	MATPS	DIS	.	1.0	P	.	.	8602BA08	.	1	.	0.3	A-10	1	.	0.3	
480	I	MATPS	DIS	.	.	P	.	.	.	.	.	.	.	A-14	1	.	0.3	
480	I	MATPS	DIS	.	.	P	.	.	.	.	.	.	.	A-12	1	.	0.3	
480	I	MATPS	DIS	.	.	P	.	.	.	.	.	.	.	A-15	1	.	0.3	

480 MATPS DIS

480 MATPS DIS

490 MATPS DIS

490 MATPS DIS

490 MATPS DIS

500 MATPS DIS

500 MATPS DIS

500 MATPS DIS

500 MATPS DIS

500 MATPS DIS

Handwritten notes and scribbles at the top of the page, including a large '15' and various illegible markings.

OPERATION PROFILE SAS

NAME _____ ALC SA _____ DATE _____ SHEET 10 OF _____

ITEM CD	PCN	08004A	WCD	TAO07K	WCD	DATE	88141	RCC	MATPS	QTY	%	HRS	EQUIP	CODE	QTY	%	HRS	NOTES
510		MATPS	DIS	1,0	P					1		0.2	A-2				0.2	
510		MATPS	DIS	1,0	P					1		0.2	A-37				0.2	
510		MATPS	DIS		P					1		0.2	A-14				0.2	
510		MATPS	DIS		P					1		0.2	A-15				0.2	
520		MATPS	DIS		S													
520		MATPS	DIS	1,0	P					1		0.2	A-37				0.2	
520		MATPS	DIS		P					1		0.2	A-14				0.2	
520		MATPS	DIS		P					1		0.2	A-15				0.2	
530		MATPS	DIS		P													
530		MATPS	DIS	1,0	P					1		0.1	A-14				0.1	
530		MATPS	DIS		P					1		0.1	A-22				0.1	

OPERATION PROFILE SAS

SHEET 17 OF

RCC MATPS I

DATE

ALC SA

NAME

ITEM CD PCN 08004A WCD TA007K WCD DATE 88141

OPER NUMB RCC OPER HIST MAND OPER MAND SKILL EQUIP CODE

530 MATPS DIS . . . P QTY % HRS QTY % HRS NOTES

~~A-14~~
A-15

~~540 MATPS DIS~~

~~540 MATPS DIS~~

~~540 MATPS DIS~~

~~540 MATPS DIS~~

~~540 MATPS DIS~~

~~540 MATPS DIS~~

~~540 MATPS DIS~~

~~540 MATPS DIS~~

~~540 MATPS DIS~~

~~540 MATPS DIS~~

~~540 MATPS DIS~~

~~540 MATPS DIS~~

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~~540 MATPS DIS~~

~~540 MATPS DIS~~

~~540 MATPS DIS~~

~~540 MATPS DIS~~

~~540 MATPS DIS~~

~~540 MATPS DIS~~

~~540 MATPS DIS~~

~~540 MATPS DIS~~

A-14

A-10

A-15

A-11

A-14

A-15

A-37

A-2

8602BA08

8602BA08

8602BA08

SAS

OPERATION PROFILE

NAME _____ ALC SA _____ DATE _____
 ITEM CD PCN 08004A WCD TA007K WCD DATE 88141

RCC MATPS I

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND TYPE	F HRS	SKILL CD/LVL	QTY	% HRS	EQUIP CODE	QTY	% HRS	NOTES
560	<u>I</u> MATPS	DIS	.	P	.	.	.	.	A-14 A-14	1	0.2	
560	<u>I</u> MATPS	DIS	.	P	.	.	.	.	A-15 A-15	1	0.2	

~~570 MATPS DIS~~ I

~~570 MATPS DIS~~ S

I 70 MATPS DIS 1.0 P

I 70 MATPS DIS

570 MATPS DIS P

~~580 MATPS DIS~~ I

~~580 MATPS DIS~~ S

I 580 MATPS DIS 1.0 P

I 580 MATPS DIS P

I 580 MATPS DIS P

I 580 MATPS DIS P

580 MATPS DIS P

8602BA08

8602BA08

~~A-14~~
A-14
~~A-37~~
A-37
~~A-15~~
A-15

~~A-10~~
A-10
~~A-14~~
A-14
~~A-15~~
A-15
~~A-11~~
A-11
A-16

SAS

OPERATION PROFILE

SHEET 19 OF

I

RCC MATPS

DATE

WCD

ALC SA

WCD TA007K

WCD DATE 88141

NAME

ITEM CD PCN 08004A

OPER NUMB RCC

OPER HIST MAND OPER MAND SKILL

DESC OCCR TYPE F HRS CD/LVL

QTY % HRS

EQUIP CODE

QTY % HRS

NOTES

590	MATPS	DIS	1.0	P	8608BA08	1	0.2	A-14	1	0.2	
590	MATPS	DIS		P				A-11	1	0.2	
590	MATPS	DIS		P				A-15	1	0.2	
590	MATPS	DIS		P				A-15	1	0.2	
590	MATPS	DIS		P				A-15	1	0.2	

600	MATPS	DIS	1.0	P	8608BA08	1	0.5	A-3	1	0.1	
600	MATPS	DIS		P				A-14	1	0.5	
600	MATPS	DIS		P				A-15	1	0.5	

610	MATPS	DIS	1.0	P	8608BA08	1	0.1	A-10	1	0.1	
610	MATPS	DIS		P				A-11	1	0.1	
610	MATPS	DIS		P				A-14	1	0.1	

SAS

OPERATION PROFILE

SHEET 20 OF

RCC MATPS I

NAME _____ ALC SA _____ DATE _____
 ITEM CD PCN 08004A WCD TA007K WCD DATE 88141

OPER NMB RCC OPER DESC HIST MAND OPER MAND SKILL CD/LVL QTY X HRS EQUIP CODE

I 60 MATPS DIS . . . P B-15 I 0.1

~~620 MATPS DIS~~ I

~~620 MATPS DIS~~ I

I 620 MATPS DIS P 1.0 P 1 A-14 1 0.1

I 630 MATPS DIS P A-15 1 0.1

S MATPS DIS P A-44 1 1

~~630 MATPS DIS~~ I

~~630 MATPS DIS~~ I

I 630 MATPS DIS P 1.0 P 1 8602BA08 1 0.1

F 630 MATPS DIS P A-14 1 0.1

I 630 MATPS DIS P A-15 1 0.1

~~640 MATPS DIS~~ I

~~640 MATPS DIS~~ I

OPERATION PROFILE SAS I

NAME _____ DATE _____
 ALC SA _____ RCC MATPS I

ITEM CD PCN 08004A WCD TA007K WCDDATE 88141

OPER DESC	RCC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
640	<u>I</u> MATPS			P		8602BA08	1		0.3	A-14 A-14	1		0.3	
640	<u>I</u> MATPS			P						A-15 A-15	1		0.3	
640	<u>I</u> MATPS			P						A-25 A-25	1		0.3	
640	MATPS			P						A-41	1		0.3	13

FLOW PROCESS CHART

SUBJECT F15 AMAO-LH DISASSEMBLE

DATE 5-25-89

ITEM CODE
PCN
NSN
P/N

WCD TA007K

WCD DATE 88191

0800AA

CHART BEGINS _____

CHART ENDS _____

PREPARED BY A.P. Holm

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
5	40	○DD■▽	INSP	340	340	●DD□▽	DIS
10	10	●DD□▽	DIS	350	350	●DD□▽	DIS
20	20	●DD□▽	DIS	360	360	●DD□▽	DIS
30	30	●DD□▽	DIS	370	370	●DD□▽	DIS
50	50	●DD□▽	DIS	380	380	●DD□▽	DIS
60	60	●DD□▽	DIS	390	390	●DD□▽	DIS
70	70	●DD□▽	DIS	400	400	●DD□▽	DIS
80	80	●DD□▽	DIS	410	410	●DD□▽	DIS
90	90	●DD□▽	DIS	420	420	●DD□▽	DIS
100	100	●DD□▽	DIS	430	430	●DD□▽	DIS
110	110	●DD□▽	DIS	440	440	●DD□▽	DIS
130	130	●DD□▽	DIS	450	450	●DD□▽	DIS
140	140	●DD□▽	DIS	460	460	●DD□▽	DIS
150	150	●DD□▽	DIS	470	470	●DD□▽	DIS
160	160	●DD□▽	DIS	480	480	●DD□▽	DIS
170	170	●DD□▽	DIS	490	490	●DD□▽	DIS
180	180	●DD□▽	DIS	500	500	●DD□▽	DIS
190	190	●DD□▽	DIS	510	510	●DD□▽	DIS
200	200	●DD□▽	DIS	520	520	●DD□▽	DIS
210	210	●DD□▽	DIS	530	530	●DD□▽	DIS
220	220	●DD□▽	DIS	540	540	●DD□▽	DIS
230	230	●DD□▽	DIS	550	550	●DD□▽	DIS
240	240	●DD□▽	DIS	560	560	●DD□▽	DIS
250	250	●DD□▽	DIS	570	570	●DD□▽	DIS
260	260	●DD□▽	DIS	580	580	●DD□▽	DIS
270	270	●DD□▽	DIS	590	590	●DD□▽	DIS
280	280	●DD□▽	DIS	600	600	●DD□▽	DIS
290	290	●DD□▽	DIS	610	610	●DD□▽	DIS
300	300	●DD□▽	DIS	620	620	●DD□▽	DIS
310	310	●DD□▽	DIS	630	630	●DD□▽	DIS
320	320	●DD□▽	DIS	640	640	●DD□▽	DIS
330	330	●DD□▽	DIS			○DD□▽	

○ OPERATION

▽ STORAGE

□ INSPECTION

▷ TRANSPORTATION

D DELAY

not Hand
 Hn cd
 Dic Assy

EF

8:18 TUESDAY, MARCH 28, 1989 62

SAS

OPERATION PROFILE

SHEET 1 OF 19

RCC MATPSS I

DATE 4-10-89

ALC SA

WCD TA278K

WCD DATE 87141

NAME APH61m

ITEM CD PCN 08005A OPER HIST MAND OPER SKILL

NUMB RCC DESC OCCR TYPE F HRS CD/LVL QTY % HRS

EQUIP CODE

NOTES

ITEM CD	PCN	08005A	OPER	HIST	MAND	OPER	SKILL	F	HRS	CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES	
10			MATPSS DIS																
10			MATPSS DIS																
10			MATPSS DIS																
10			MATPSS DIS																
20			MATPSS DIS																
20			MATPSS DIS																
20			MATPSS DIS																
20			MATPSS DIS																
30			MATPSS DIS																
30			MATPSS DIS																
30			MATPSS DIS																
30			MATPSS DIS																

10 MATPSS DIS

OPERATION PROFILE SAS

SHEET 2 OF

NAME _____ ALC SA _____ DATE _____ RCC MATPS I

ITEM CD PCN 08005A WCD TA278K WCD DATE 87141

OPER NUMB RCC OPER HIST MAND OPER SKILL EQUIP QTY % HRS NOTES

DESC OCCR TYPE F HRS CD/LVL QTY % HRS CODE

OP40 gone
1st.

~~40 MATPS NDI~~

I MATPS NDI 1.0 P 0.1 ~~0.1~~

~~40 MATPS NDI~~

~~50 MATPS DIS~~

~~50 MATPS DIS~~

I MATPS DIS 1.0 P 0.1 ~~0.1~~ A-14

I MATPS DIS P 0.1 ~~0.1~~ A-15

~~60 MATPS DIS~~

~~60 MATPS DIS~~

I MATPS DIS 1.0 P 0.2 ~~0.2~~ A-14

I MATPS DIS P 0.2 ~~0.2~~ A-15

~~70 MATPS DIS~~

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SHEET 3 OF

SAS

OPERATION PROFILE

NAME _____ ALC SA _____ DATE _____
 ITEM CD PCN 08005A WCD TA278K WCD DATE 87141

OPER NUMB RCC OPER HIST MAND OPER SKILL
 DESC OCCR TYPE F HRS CD/LVL QTY % HRS EQUIP CODE

70	MATPS	DIS	1.0	P		1	0.1	0.1	0.1	A-14	
70	MATPS	DIS		P				0.1	0.1	A-15	
70	MATPS	DIS		P					0.1	A-28	

80 MATPS DIS

80 MATPS DIS

80 MATPS DIS

80 MATPS DIS

80 MATPS DIS

80 MATPS DIS

80 MATPS DIS

80 MATPS DIS

80 MATPS DIS

80 MATPS DIS

80 MATPS DIS

80 MATPS DIS

80 MATPS DIS

A-14
A-28
A-15

A-14
A-28
A-15

A-14
A-28
A-15

8602BA08

8602BA08

8602BA08

8602BA08

8602BA08

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SHEET 4 OF

SAS

OPERATION PROFILE

NAME _____ DATE _____

ALC SA _____

OPER NUMB

ITEM CD PCN 08005A

WCD TA278K

WCDDATE 87141

OPER DESC

HIST MAND OPER OCCR TYPE

QTY

% HRS

EQUIP CODE

QTY

% HRS

NOTES

100 MATPS\$ DIS . 1.0 P
 100 MATPSI DIS P
 100 MATPS\$ DIS . P

8608BA08
~~100~~

A-14
~~A-14~~
 A-15
 A-38
~~A-38~~

1 . 0.2
 1 . 0.2
 1 . 0.2

[Handwritten signatures]

110 MATPS\$ DIS . I

110 MATPS\$ DIS . S

110 MATPS\$ DIS . 1.0 P
 I

8602BA08
~~100~~

A-14
~~A-14~~

1 . 0.2

[Handwritten signatures]

110 MATPS\$ DIS . P
 I

A-15
~~A-15~~

1 . 0.2

[Handwritten signature]

120 MATPS\$ DIS . I

120 MATPS\$ DIS . S

120 MATPS\$ DIS . 1.0 P
 I

8608BA08
~~100~~

A-1
~~A-1~~

1 . 0.0

[Handwritten signatures]

120 MATPS\$ DIS . P
 I

A-14
~~A-14~~

1 . 0.2

[Handwritten signature]

120 MATPS\$ DIS . P
 I

A-15
~~A-15~~

1 . 0.2

[Handwritten signature]

130 MATPS\$ DIS . I

OPERATION PROFILE SAS

SHEET 5 OF

RCC MATPS#

DATE

WCD

TA278K

WCD

DATE

87141

ITEM CD	PCN	OPER	HIST	MAND	OPER	SKILL	QTY	%	HRS	EQUIP	QTY	%	HRS	NOTES
NUMB	RCC	DESC	OC	TYPE	F	CD/LVL				CODE				
130		DIS					1		0.1	A-14 A2-4/3	1		0.1	A-14
130		DIS					1		0.1	A-15 A2-4/4	1		0.1	A-15
140		DIS					1		0.1	A-14 A2-4/3	1		0.1	A-14
140		DIS					1		0.1	A-15 A2-4/4	1		0.1	A-15
150		DIS					1		0.1	A-14 A2-4/3	1		0.1	A-14
150		DIS					1		0.1	A-15 A2-4/4	1		0.1	A-15
150		DIS					1		0.1	A-C A2-4/4	1		0.1	A-C

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SHEET 6 OF

SAS

OPERATION PROFILE

NAME _____ ALC SA _____ DATE _____
 ITEM CD PCN 08005A WCD TA278K WCDDATE 87141

OPER NMBR RCC OPER HIST MAND OPER SKILL
 DESC OCCR TYPE F HRS CD/LVL QTY % HRS EQUIP CODE

OPER NMBR	RCC	OPER DESC	HIST OCCR TYPE	F HRS	CD/LVL	QTY	% HRS	WCD	EQUIP CODE	QTY	% HRS	NOTES
160	MATPS	DIS	P	1.0	P	1	0.1	A-14	A-14	1	0.0	A-14
160	MATPS	DIS	P					A-15	A-15	1	0.0	A-15
160	MATPS	DIS	P					A-31	A-31	1	0.1	A-31
160	MATPS	DIS	P					A-32	A-32	1	0.1	A-32

OPER NMBR	RCC	OPER DESC	HIST OCCR TYPE	F HRS	CD/LVL	QTY	% HRS	WCD	EQUIP CODE	QTY	% HRS	NOTES
170	MATPS	DIS	P	1.0	P	1	0.0	A-14	A-14	1	0.0	A-14
170	MATPS	DIS	P					A-15	A-15	1	0.0	A-15
170	MATPS	DIS	P					A-18	A-18	1	0.0	A-18

170 MATPS DIS
 180 MATPS DIS

OPERATION PROFILE

SHEET 7 OF

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RCC MATPS

SAS

DATE

ALC SA

WCD TA278K

WCD TA278K

MAND SKILL

CD/LVL

WCDDATE 87141

QTY % HRS

QTY % HRS

ITEM CD	PCN	08005A	OPER	HIST	MAND	OPER	SKILL	CD/LVL	WCDDATE	87141	QTY	%	HRS	EQUIP	CODE	QTY	%	HRS	NOTES
180	MATPS	<u>I</u>	DIS	.	P	.	.	.	.	.	1	.	0.1	A-14	A-14	1	.	0.1	A-14
180	MATPS	<u>I</u>	DIS	.	P	.	.	.	.	.	1	.	0.1	A-15	A-15	1	.	0.1	A-15
190	MATPS	<u>I</u>	DIS	.	P	.	.	.	.	.	1	.	0.1	A-14	A-14	1	.	0.1	A-14
190	MATPS	<u>I</u>	DIS	.	P	.	.	.	.	.	1	.	0.1	A-15	A-15	1	.	0.1	A-15
200	MATPS	<u>I</u>	DIS	.	P	.	.	.	.	.	1	.	0.1	A-14	A-14	1	.	0.1	A-14
200	MATPS	<u>I</u>	DIS	.	P	1	.	0.1	A-15	A-15	1	.	0.1	A-15
210	MATPS	<u>I</u>	DIS	.	P	2	.	0.3	A-14	A-14	1	.	0.3	A-14
210	MATPS	<u>I</u>	DIS	.	P	1	.	0.3	A-15	A-15	1	.	0.3	A-15

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RCC MATPS

SHEET 2 OF

OPERATION PROFILE

NAME _____ ALC SA _____ DATE _____
 ITEM CD PCN 08005A WCD TA278K WCD DATE 87141

OPER NOMB	RCC	OPER DESC	HIST OCCR	MAND TYPE	F HRS	SKILL CD/LVL	QTY	% HRS	EQUIP CODE	QTY	% HRS	NOTES
210	MATPS	DIS	.	P	.		1	0.3	A-15	1	0.3	BAOS
210	MATPS	DIS	.	P	.		1	0.3	A-38	1	0.3	BAOS
220	MATPS	DIS	.	P	.							
220	MATPS	DIS	.	P	.	8608 BAOS	1	0.1	A-14	1	0.1	A-14
220	MATPS	DIS	.	P	.				A-15	1	0.1	BAOS
220	MATPS	DIS	.	P	.							
230	MATPS	DIS	.	P	.	8608 BAOS	1	0.2	A-14	1	0.2	A-14
230	MATPS	DIS	.	P	.				A-15	1	0.2	A-38
230	MATPS	DIS	.	P	.				A-38	1	0.2	A-15
240	MATPS	DIS	.	P	.							
240	MATPS	DIS	.	P	.							

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OPERATION PROFILE

SHEET 9 OF

RCC MATPS I

NAME _____ ALC SA _____ DATE _____
 ITEM CD PCN 08005A WCD TA278K WCD DATE 87141

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND OCCR	OPER TYPE	MAND F	SKILL CD/LVL	QTY	% HRS	EQUIP CODE	QTY	% HRS	NOTES
240	MATPS I	DIS	1.0	P			8662BA08	1	0.2	A-14	1	0.2	A-14
240	MATPS I	DIS		P						A-15	1	0.2	A-15
240	MATPS I	DIS		P						A-38	1	0.2	A-38
240	MATPS I	DIS		P						A-40	1	0.2	A-40

250 MATPS DIS

250 MATPS DIS

250 MATPS DIS 1.0 P 8662BA08

250 MATPS DIS P

260 MATPS DIS

260 MATPS DIS

260 MATPS DIS 1.0 P 8662BA08

260 MATPS DIS P

260 MATPS DIS P

270 MATPS DIS

270 MATPS DIS

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SHEET 10 OF _____

SAS

OPERATION PROFILE

NAME _____

ALC SA _____

DATE _____

ITEM CD PCN 08005A

WCD TA278K WCDDATE 87141

OPER NMBR RCC OPER HIST MAND OPER MAND SKILL CD/LVL QTY % HRS

EQUIP CODE QTY % HRS

NOTES

270	MATPS\$	DIS	1.0	P	1	0.3		A-14	1	0.3	<i>[Handwritten scribbles]</i>
270	MATPS\$	DIS		P			8600BA08	A-15	1	0.3	<i>[Handwritten scribbles]</i>
270	MATPSI	DIS		P				A-29	1	0.3	<i>[Handwritten scribbles]</i>

280	MATPS\$	EID	1.0	P	1	0.3		A-14	1	0.1	<i>[Handwritten scribbles]</i>
280	MATPS\$	EID		P			8600BA08	A-14	1	0.3	<i>[Handwritten scribbles]</i>
280	MATPS\$	EID		P				A-15	1	0.3	<i>[Handwritten scribbles]</i>

290	MATPS\$	DIS	1.0	P	1	0.1		A-14	1	0.1	<i>[Handwritten scribbles]</i>
290	MATPS\$	DIS		P			8600BA08	A-15	1	0.1	<i>[Handwritten scribbles]</i>
290	MATPSI	DIS		P				A-38	1	0.1	<i>[Handwritten scribbles]</i>

300	MATPS\$	DIS		P							<i>[Handwritten scribbles]</i>
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OPERATION PROFILE

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SHEET 11 OF

NAME _____ ALC SA _____ DATE _____

WCD TA278K WCD DATE 87141

ITEM CD PCN 08005A

RCC MATPS

NOTES

HRS

QTY

EQUIP CODE

HRS

QTY

SKILL CD/LVL

F HRS

OPER TYPE

MAND OCCR

HIST

DESC

OPER

NUMB

300	MATPS	DIS	P	1	0.1	A-14 A2-4/4	1	-0.1	A-14
300	MATPS	DIS	P	1	0.1	A-15 A2-4/4	1	0.1	A-15

310	MATPS	DIS	1.0 P	1	0.1	A-14 A2-4/4	1	0.1	A-14
310	MATPS	DIS	P	1	0.1	A-15 A2-4/4	1	0.1	A-15
310	MATPS	DIS	P	1	0.1	A-14 A2-4/4	1	0.1	A-14

320	MATPS	DIS	1.0 P	1	0.1	A-14 A2-4/4	1	0.1	A-14
320	MATPS	DIS	P	1	0.1	A-15 A2-4/4	1	0.1	A-15

330	MATPS	DIS	S	1	0.1	A-14 A2-4/4	1	0.1	A-14
330	MATPS	DIS	S	1	0.1	A-15 A2-4/4	1	0.1	A-15

OPERATION PROFILE
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 RCC MATPSS

SHEET 12 OF

NAME _____ ALC SA _____ DATE _____
 ITEM CD PCN 08005A WCD TA278K WCD DATE 87141

OPER NOMB	RCC	OPER DESC	HIST OCCR	MAND TYPE	MAND F	SKILL CD/LVL	QTY	% HRS	EQUIP CODE	QTY	% HRS	NOTES
330	MATPSS	DIS	1.0	P		BA08 BA08	1	0.2	A-24	1	0.1	A-24
330	MATPSS	DIS		P					A-114	1	0.2	A-114
330	MATPSS	DIS		P					A-15	1	0.2	A-15
330	MATPSS	DIS		P					A-37	1	0.1	A-37
340	MATPSS	DIS		P								
340	MATPSS	DIS	1.0	P		BA08 BA08	1	0.1	A-37	1	0.1	A-37
340	MATPSS	DIS		P					A-14	1	0.1	A-14
340	MATPSS	DIS		P					A-15	1	0.1	A-15
350	MATPSS	DIS		P								
350	MATPSS	DIS	1.0	P		BA08 BA08	1	0.3	A-14	1	0.3	A-14
350	MATPSS	DIS		P					A-15	1	0.3	A-15
350	MATPSS	DIS		P					A-12	1	0.1	A-12
350	MATPSS	DIS		P					A-10	1	0.1	A-10
350	MATPSS	DIS		P					A-40	1	0.1	A-40

OPERATION PROFILE

NAME _____ SHEET 12 OF _____

RCC MATPSS

DATE _____

ALC SA _____

WCD TA278K WCDDATE 87141

ITEM CD PCN 08005A

OPER NUMB	RCC	OPER DESC	HIST OCCR TYPE	MAND F	OPER HRS	SKILL CD/LVL	QTY	% HRS	EQUIP CODE	QTY	% HRS	NOTES
350	MAIPSS	DIS	P	P	0.3	A2-4/4	1	0.3				
360	MAIPSS	DIS	T	T	0.1		1	0.1				
360	MAIPSS	DIS	S	S	0.1		1	0.1				
360	MATPSS	DIS	P	P	1.0	8608 BA08	1	0.1	A-40	1	0.1	A-40
360	MATPSS	DIS	P	P					A-14	1	0.1	A-14
360	MATPSS	DIS	P	P					A-15	1	0.1	A-15
370	MAIPSS	DIS	T	T	0.3		1	0.3				
370	MAIPSS	DIS	S	S	0.3		1	0.3				
370	MATPSS	DIS	P	P	1.0	8608 BA08	1	0.3	A-14	1	0.3	A-14
370	MATPSS	DIS	P	P					A-15	1	0.3	A-15
375	MAIPSS	DIS	T	T	0.1		1	0.1				
375	MAIPSS	DIS	S	S	0.1		1	0.1				
375	MATPSS	DIS	P	P	1.0	8608 BA08	1	0.1	A-2	1	0.1	A-2
									A-37	1	0.1	A-37

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SHEET 14 OF

OPERATION PROFILE

NAME	ITEM CD	PCN	OPER	HIST	MAND	OPER	SKILL	WCD	TA278K	DATE	WCD	DATE	87141	ALC	SA	QTY	%	HRS	EQUIP	CODE	QTY	%	HRS	NOTES
	375		MATPS	DIS	.	P	.	.	.	.	.	.	.	.	.	.	.	.	.	A-14	1	.	0.1	
	375		MATPS	DIS	.	P	.	.	.	.	.	.	.	.	.	.	.	.	.	A-15	1	.	0.1	
	380		MATPS	DIS	.	P	.	.	.	.	.	.	.	.	.	.	.	.	.
	380		MATPS	DIS	.	P	.	.	.	.	.	.	.	.	.	.	.	.	.
	380		MATPS	DIS	.	P	.	.	.	.	.	.	.	.	.	.	.	.	.	A-37	1	.	0.1	
	380		MATPS	DIS	.	P	.	.	.	.	.	.	.	.	.	.	.	.	.	A-14	1	.	0.1	
	380		MATPS	DIS	.	P	.	.	.	.	.	.	.	.	.	.	.	.	.	A-15	1	.	0.1	
	390		MATPS	DIS	.	P	.	.	.	.	.	.	.	.	.	.	.	.	.
	390		MATPS	DIS	.	P	.	.	.	.	.	.	.	.	.	.	.	.	.
	390		MATPS	DIS	.	P	.	.	.	.	.	.	.	.	.	.	.	.	.	A-14	1	.	0.1	
	390		MATPS	DIS	.	P	.	.	.	.	.	.	.	.	.	.	.	.	.	A-15	1	.	0.1	
	390		MATPS	DIS	.	P	.	.	.	.	.	.	.	.	.	.	.	.	.	A-23	1	.	0.1	

A-37
A-14
A-15

A-23
A-14
A-15

8602BA08

8602BA08

1.0 P

1.0 P

~~MATPS DIS~~

~~MATPS DIS~~

~~MATPS DIS~~

SAS I
RCC MATPS

OPERATION PROFILE

SAS

DATE

ALC SA

WCD TA278K

WCDDATE 87141

NAME _____

ITEM CD PCN 08005A

OPER NUMB RCC OPER HIST MAND OPER MAND SKILL

DESC OCCR TYPE F HRS CD/LVL QTY % HRS

WCD MATPS DIS 1.0 P 8602BA08 1 0.2

400 MATPS DIS 1.0 P 8602BA08 1 0.2

400 MATPS DIS 1.0 P 8602BA08 1 0.2

400 MATPS DIS 1.0 P 8602BA08 1 0.2

400 MATPS DIS 1.0 P 8602BA08 1 0.2

400 MATPS DIS 1.0 P 8602BA08 1 0.2

400 MATPS DIS 1.0 P 8602BA08 1 0.2

400 MATPS DIS 1.0 P 8602BA08 1 0.2

400 MATPS DIS 1.0 P 8602BA08 1 0.2

400 MATPS DIS 1.0 P 8602BA08 1 0.2

400 MATPS DIS 1.0 P 8602BA08 1 0.2

400 MATPS DIS 1.0 P 8602BA08 1 0.2

400 MATPS DIS 1.0 P 8602BA08 1 0.2

400 MATPS DIS 1.0 P 8602BA08 1 0.2

400 MATPS DIS 1.0 P 8602BA08 1 0.2

400 MATPS DIS 1.0 P 8602BA08 1 0.2

400 MATPS DIS 1.0 P 8602BA08 1 0.2

400 MATPS DIS 1.0 P 8602BA08 1 0.2

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400 MATPS DIS 1.0 P 8602BA08 1 0.2

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400 MATPS DIS 1.0 P 8602BA08 1 0.2

400 MATPS DIS 1.0 P 8602BA08 1 0.2

400 MATPS DIS 1.0 P 8602BA08 1 0.2

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SAS I SHEET 16 OF

OPERATION PROFILE

NAME _____ ALC SA _____ DATE _____ RCC MATPS I

ITEM CD PCN 08005A WCD TA278K WCDDATE 87141

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND TYPE	MAND F	SKILL CD/LVL	QTY	% HRS	EQUIP CODE	QTY	% HRS	NOTES
440	MATPS	DIS	 	 	 	 	 	 	 	 	 	
440	<u>I</u>	MATPS	DIS	1.0 P	8602BA08	A-37	1	0.2	A-37	1	0.1	
440	<u>I</u>	MATPS	DIS	P		A-14	1		A-14	1	0.2	
440	<u>I</u>	MATPS	DIS	P		A-15	1		A-15	1	0.2	

450	MATPS	DIS	 	 	 	 	 	 	 	 	 	
450	<u>I</u>	MATPS	DIS	1.0 P	8602BA08	A-10	1	0.1	A-10	1	0.1	
450	<u>I</u>	MATPS	DIS	P		A-11	1		A-11	1	0.1	
450	<u>I</u>	MATPS	DIS	P		A-14	1		A-14	1	0.1	
450	<u>I</u>	MATPS	DIS	P		A-15	1		A-15	1	0.1	

460	MATPS	DIS	 	 	 	 	 	 	 	 	 	
460	<u>I</u>	MATPS	DIS	1.0 P	8602BA08	A-14	1	0.1	A-14	1	0.1	
460	<u>I</u>	MATPS	DIS	P		A-15	1		A-15	1	0.1	
460	<u>I</u>	MATPS	DIS	P		A-11	1		A-11	1	0.1	

OPERATION PROFILE SAS

NAME _____ ALC SA _____ DATE _____
ITEM CD PCN 08005A WCD TA278K WCD DATE 87141

OPER NUMB RCC I DESC OPER HIST MAND OPER SKILL EQUIP
NUMB OCCR TYPE F HRS CD/LVL QTY % HRS CODE

460 MATPS# DIS . . P
A-45

~~468 MATPS# DIS . . P~~
A-44

470 MATPS# DIS . . P

470 MATPS# DIS . . P

470 MATPS# DIS . . P
A-3
8602BA08

470 MATPS# DIS . . P
A-14

470 MATPS# DIS . . P
A-15

480 MATPS# DIS . . P

480 MATPS# DIS . . P

480 MATPS# DIS . . P
A-10
8602BA08

480 MATPS# DIS . . P
A-14

480 MATPS# DIS . . P
A-15

480 MATPS# DIS . . P
A-11

480 MATPS# DIS . . P
A-15

~~DIS~~

~~DIS~~

~~DIS~~

~~DIS~~

~~DIS~~

~~DIS~~

~~DIS~~

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SHEET 18 OF

OPERATION PROFILE

NAME _____ SAS _____
 ITEM CD PCN 08005A ALC SA _____ DATE _____
 WCD TA278K WCDDATE 87141

OPER NUB	RCC	OPER DESC	MAND OCCR	OPER TYPE	F HRS	MAND F HRS	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
490	MATPS	DIS													
490	MATPS	DIS	I	1.0 P				1		0.2	A-14	1		0.2	A-14 A-15
490	MATPS	DIS	I				8602BA08				A-15	1		0.2	

500	MATPS	DIS													
500	MATPS	DIS	I	1.0 P				1		0.1	A-14	1		0.1	A-14 A-15 A-13
500	MATPS	DIS	I				8602BA08				A-15	1		0.1	
500	MATPS	DIS	I								A-43	1		0.1	

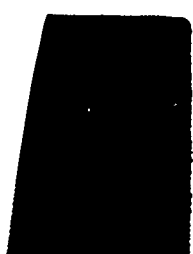
510	MATPS	DIS													
510	MATPS	DIS	I	1.0 P				1		0.3	A-25	1		0.3	A-25 A-41
510	MATPS	DIS	I								A-41	1		0.3	

ALC SA
 WCD TA278K
 HIST MAND OPER MAND
 OCCR OCCR TYPE F HRS CD/LVL

WCDDATE 87141
 SKILL
 EQUIP CODE

RCC MATPS9
 QTY % HRS
 QTY % HRS

NOTES



FLOW PROCESS CHART
 SUBJECT F15 AMAD - RH DISASSEMBLE DATE 5-24-89

ITEM CODE
 PCN
 NSN
 P/N

WCD TA278K WCD DATE 87141

08005A

CHART BEGINS 5

CHART ENDS 510 PREPARED BY A P Holm

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
5	40	○◇D■▽	INSP	330	330	●◇D□▽	DIS
10	10	●◇D□▽	DIS	340	340	●◇D□▽	DIS
20	20	●◇D□▽	DIS	350	350	●◇D□▽	DIS
30	30	●◇D□▽	DIS	360	360	●◇D□▽	DIS
50	50	●◇D□▽	DIS	370	370	●◇D□▽	DIS
60	60	●◇D□▽	DIS	375	375	●◇D□▽	DIS
70	70	●◇D□▽	DIS	380	380	●◇D□▽	DIS
80	80	●◇D□▽	DIS	390	390	●◇D□▽	DIS
90	90	●◇D□▽	DIS	400	400	●◇D□▽	DIS
100	100	●◇D□▽	DIS	410	410	●◇D□▽	DIS
110	110	●◇D□▽	DIS	420	420	●◇D□▽	DIS
120	120	●◇D□▽	DIS	440	440	●◇D□▽	DIS
130	130	●◇D□▽	DIS	450	450	●◇D□▽	DIS
140	140	●◇D□▽	DIS	460	460	●◇D□▽	DIS
150	150	●◇D□▽	DIS	470	470	●◇D□▽	DIS
160	160	●◇D□▽	DIS	480	480	●◇D□▽	DIS
170	170	●◇D□▽	DIS	490	490	●◇D□▽	DIS
180	180	●◇D□▽	DIS	500	500	●◇D□▽	DIS
190	190	●◇D□▽	DIS	510	510	●◇D□▽	DIS
200	200	●◇D□▽	DIS			○◇D□▽	
200	210	●◇D□▽	DIS			○◇D□▽	
220	220	●◇D□▽	DIS			○◇D□▽	
230	230	●◇D□▽	DIS			○◇D□▽	
240	240	●◇D□▽	DIS			○◇D□▽	
250	250	●◇D□▽	DIS			○◇D□▽	
260	260	●◇D□▽	DIS			○◇D□▽	
270	270	●◇D□▽	DIS			○◇D□▽	
280	280	●◇D□▽	DIS			○◇D□▽	
290	290	●◇D□▽	DIS			○◇D□▽	
300	300	●◇D□▽	DIS			○◇D□▽	
310	310	●◇D□▽	DIS			○◇D□▽	
320	320	●◇D□▽	DIS			○◇D□▽	

○ OPERATION ▽ STORAGE □ INSPECTION
 ◇ TRANSPORTATION ▽ DELAY

F13-T + Fuel Starter Disassembly

BA ✓ f

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SAS

OPERATION PROFILE

RCC MATPS

SHEET 1 OF

DATE 4-13-89

WCD TAIL13H WCD DATE 88065 V

ITEM CD	PCN	OPER	HIST	MAND	OPER	MAND	SKILL	QTY	%	HRS	EQUIP	QTY	%	HRS	NOTES
NUMB	RCC	DESC	OCOR	TYPE	F	HRS	CD/LVL				CODE				
2	MATPSS	PREP	0.07	I											
2	MATPSS	PREP	1.00	S											
10	MATPS	PREP	1.0 P				8602BA08	1		0.3					Juan Martin = Z 8602BE09 Joe Villarrell Supervisor
3	MATPSS	PREP	1.00	I											
3	MATPSS	PREP	1.00	S											
20	MATPS	PREP	1.0 P				8602BA08	1		0.0					
4	MATPSS	PREP	1.00	I											
4	MATPSS	PREP	1.00	S											
4	MATPS	PREP	1.0 P				8602BA08	2		0.5	G-32	1		0.5	
4	MATPS	PREP	P				G-33	1		0.5		1		0.5	
5	MATPSS	INSP	1.00	I											
5	MATPSS	INSP	1.00	S											
5	MATPS	INSP	1.0 P				8602BA08	1		0.3	G-32	1		0.3	

I

SHEET 2 OF

OPERATION PROFILE SAS

NAME _____ ALC SA _____ DATE _____
 ITEM CD PCN 08006A WCD TAIL13H WCDDATE 88065

OPER NUMB RCC OPER HIST MAND OPER SKILL EQUIP
 DESC OCCR TYPE F HRS CD/LVL QTY % HRS CODE NOTES

5 ^I MATPSS INSP . . . P G-33 1 . . . 0.3

~~6 MATPSS INSP 0.87 . . . T~~

~~6 MATPSS INSP . . . S~~

6 ^I MATPSS INSP . . . P 8602BA08 1 . . . 0.5 G-98

6 ^I MATPSS INSP . . . P G-32 1 . . . 0.5

6 ^I MATPSS INSP . . . P G-33 1 . . . 0.5

~~8 MATPSS PREP 1.00 . . . T~~

~~8 MATPSS PREP . . . S~~

3 ^I MATPSS PREP . . . P 8602BA08 1 . . . 0.1 G-32

3 ^I MATPSS PREP . . . P G-33 1 . . . 0.1

~~10 MATPSS DIS 1.00 . . . T~~

~~10 MATPSS DIS . . . S~~

10 ^I MATPSS DIS . . . P 8602BA08 1 . . . 0.8 G-32

Revise sequence
 OP 8 becomes
 OP 3

I

RCC MATPS

SAS

OPERATION PROFILE

NAME _____ ALC SA _____ DATE _____
 ITEM CD PCN 08006A WCD TALL13H WCD DATE 88065

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND TYPE	MAND F	SKILL CD/LVL	QTY	% HRS	EQUIP CODE	QTY	% HRS	NOTES
10		MATPS		P		G-33	1	0.8				

~~12 MATPS DIS 1.00~~

~~12 MATPS DIS~~

I
 12 MATPS DIS 1.0 P 8602 BA08
~~1.0 P~~

I
 12 MATPS DIS P G-33 0.3

~~14 MATPS DIS 1.00~~

~~14 MATPS DIS~~

I
 14 MATPS DIS 1.0 P 8602 BA08
~~1.0 P~~

I
 14 MATPS DIS P G-33 0.3

~~16 MATPS DIS 1.00~~

~~16 MATPS DIS~~

I
 16 MATPS DIS 1.0 P 8602 BA08
~~1.0 P~~

I
 16 MATPS DIS P G-33 0.3

OPERATION PROFILE SAS

SHEET 4 OF

NAME _____ ALC SA _____ DATE _____ RCC MATPS ^I

ITEM CD PCN 08006A WCD TALL3H WCDDATE 88065

OPER Numb OPER DESC HIST MAND OPER TYPE F HRS SKILL CD/LVL QTY % HRS EQUIP CODE QTY % HRS NOTES

~~18 MATPSS DIS 1.00 P~~

~~18 MATPSS DIS~~

^I 18 MATPSS DIS 1.0 P 8602BA08 1 0.2 G-32 1 0.2

^I 18 MATPSS DIS P G-33 1 0.2

~~20 MATPSS DIS 1.00 P~~

~~20 MATPSS DIS~~

^I 20 MATPSS DIS 1.0 P 8602BA08 1 0.3 G-32 1 0.3

^I 20 MATPSS DIS P G-33 1 0.3

~~22 MATPSS DIS 1.00 P~~

~~22 MATPSS DIS~~

^I 22 MATPSS DIS 1.0 P 8602BA08 1 0.3 G-32 1 0.3

^I 22 MATPSS DIS P G-33 1 0.3

OPERATION PROFILE SAS

NAME _____ ALC SA _____ DATE _____ WCD TAIL13H WCDDATE 88065 SHEET 5 OF _____

ITEM CD PCN 08006A OPER HIST MAND OPER MAND SKILL EQUIP CODE

NUMB RCC OPER DESC OCCR TYPE F HRS CD/LVL QTY % HRS QTY % HRS NOTES

ITEM CD	PCN	OPER	HIST	MAND	OPER	MAND	SKILL	EQUIP	CODE	QTY	%	HRS	QTY	%	HRS	NOTES
22		MATPS	DIS	1.00	I											
23		MATPS	DIS	1.00	S											
23		I MATPS	DIS	1.0	P		8602BA08		G-32	1		0.1	1		0.1	
23		I MATPS	DIS		P				G-33	1		0.1	1		0.1	
24		MATPS	DIS	1.00	I											
24		MATPS	DIS	1.00	S											
24		I MATPS	DIS	1.0	P		8602BA08		G-32	1		0.3	1		0.3	
24		I MATPS	DIS		P				G-33	1		0.3	1		0.3	
26		MATPS	DIS	1.00	I											
26		I MATPS	DIS	1.0	P		8602BA08		G-32	1		0.4	1		0.4	
26		I MATPS	DIS		P				G-33	1		0.4	1		0.4	
28		MATPS	PROC	1.0	I											
28		I MATPS	PROC	1.0	P		8602BA08		G-32	1		0.1	1		0.1	
28		I MATPS	PROC		P				G-33	1		0.1	1		0.1	

I

OPERATION PROFILE SAS

SHEET 6 OF

RCC MATPS

NAME	ITEM CD	PCN	OPER	HIST	MAND	OPER	MAND	SKILL	DATE	WCD	TAL13H	WCDDATE	88065	QTY	%	HRS	EQUIP	CODE	QTY	%	HRS	NOTES
		08006A																				
			OPER	DESC	OCOR	TYPE	F	HRS	CD/LVL													

~~28 MATPSS PROC 1-00~~

~~30 MATPSS DIS 1-00~~

~~30 MATPSS DIS S~~

30 MATPSS DIS I 1:0 P 8602BA08 1 0.3

~~35 MATPSS MOVE 0-23~~

~~35 MATPSS MOVE S~~

35 MATPSS MOVE I 1:0 P 8602BA08 1 0.4

~~40 MATPSS PREP 1-00~~

~~40 MATPSS PREP S~~

40 MATPSS PREP I 1:0 P 8602BA08 1 0.8

FLOW PROCESS CHART

SUBJECT F15-JFS Disassembly DATE 5-22-89

ITEM CODE
 PCN
 NSN
 P/N

WCD TA 1134 WCD DATE 88065

08006A

CHART BEGINS _____

CHART ENDS _____ PREPARED BY AP Helm

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
1	2	●▷▷□▽	Receive			○▷▷□▽	
2	3	●▷▷□▽	Prep			○▷▷□▽	
3	8	●▷▷□▽	Prep			○▷▷□▽	
4	4	●▷▷□▽	Prep			○▷▷□▽	
5	5	○▷▷■▽	INSP			○▷▷□▽	
6	6	○▷▷■▽	INSP			○▷▷□▽	
10	10	●▷▷□▽	Dis			○▷▷□▽	
12	12	●▷▷□▽	Dis			○▷▷□▽	
14	14	●▷▷□▽	Dis			○▷▷□▽	
16	16	●▷▷□▽	Dis			○▷▷□▽	
18	18	●▷▷□▽	Dis			○▷▷□▽	
20	20	●▷▷□▽	Dis			○▷▷□▽	
22	22	●▷▷□▽	Dis			○▷▷□▽	
23	23	●▷▷□▽	Dis			○▷▷□▽	
24	24	●▷▷□▽	Dis			○▷▷□▽	
26	26	●▷▷□▽	Dis			○▷▷□▽	
28	28	○▷▷□▽	Route			○▷▷□▽	
30	30	●▷▷□▽	Dis			○▷▷□▽	
35	35	○▷▷□▽	ROUTE			○▷▷□▽	
40	40	○▷▷□▽	ROUTE			○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	

○ OPERATION ▽ STORAGE □ INSPECTION
 ▷ TRANSPORTATION D DELAY

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SHEET 1 OF

F15 J. S. DISASSEMBLY
Generator Module & Housing

OPERATION PROFILE
SAS
DATE A-14-89
RCC MATPSS
MATPS I

NAME	ITEM CD	PCN	WCD	TA108H	ALC SA	WCD DATE	88065	QTY	%	HRS	EQUIP CODE	QTY	%	HRS	NOTES
	OPER	HIST	MAND	OPER	MAND	F	HRS	CD/LVL	SKILL						
	NUMB	RCC	DESC	OC	TYPE										
10	MATPSS	DIS	0.98												
10	MATPSS	DIS	1.00												
10	MATPSS	DIS	1.00												
10	MATPSS	DIS	1.00												
10	MATPSS	DIS	1.00												
15	MATPSS	DIS	1.00												
15	MATPSS	DIS	1.00												
15	MATPSS	DIS	1.00												
15	MATPSS	DIS	1.00												
15	MATPSS	DIS	1.00												
20	MATPSS	DIS	1.00												
20	MATPSS	DIS	1.00												
20	MATPSS	DIS	1.00												

8602BA08
G-12
G-32
G-33
G-44

NOTES
Iron Marking
8602BA08
Joe Villarell
Supervisor

OPERATION PROFILE SAS

NAME	ITEM CD	PCN	08006ASUB1	WCD	TA108H	WCDDATE	88065	DATE	ALC SA	MAND	OPER	TYPE	F	HRS	SKILL	CD/LVL	QTY	%	HRS	EQUIP	CODE	QTY	%	HRS	NOTES
	35		MATPSS	DIS																					
	35		I	MATPSS	DIS						1.0	P				8602BA08	1		0.2	G-32		1		0.2	
	35		I	MATPSS	DIS							P				G-33						1		0.2	
	35		I	MATPSS	DIS							P				G-30						1		0.2	
	40		MATPSS	DIS																					
	40		MATPSS	DIS																					
	40		I	MATPSS	DIS						1.0	P				8602BA08	1		0.2	G-32		1		0.2	
	40		I	MATPSS	DIS							P				G-33						1		0.2	
	40		I	MATPSS	DIS							P				G-60						1		0.2	
	45		MATPSS	DIS																					
	45		MATPSS	DIS																					
	45		I	MATPSS	DIS						1.0	P				8602BA08	1		0.2	G-32		1		0.2	
	45		I	MATPSS	DIS							P				G-33						1		0.2	

SAS

OPERATION PROFILE

NAME _____ ALC SA _____ DATE _____

ITEM CD PCN 08006ASUB1 WCD TAI08H WCDDATE 88065

OPER NUMB RCC OPER HIST MAND OPER MAND SKILL EQUIP
DESC OCCR TYPE F HRS CD/LVL QTY % HRS CODE

RCC MATPS\$

45 MATPS\$ DIS . . . P G-40 1 . . 0.1

~~50 MATPSS DIS 1.00~~

~~50 MATPSS DIS . . . S~~

50 MATPS\$ DIS . . . 1.0 P 8602BA08
-WB-9 1 . . 0.2 G-32 1 . . 0.2

50 MATPS\$ DIS . . . P G-33 1 . . 0.2

~~55 MATPSS DIS 1.00~~

~~55 MATPSS DIS . . . S~~

55 MATPS\$ DIS . . . 1.0 P 8602BA08
-WB-9 1 . . 0.1 G-32 1 . . 0.1

55 MATPS\$ DIS . . . P G-33 1 . . 0.1

~~60 MATPSS DIS 1.00~~

~~60 MATPSS DIS . . . S~~

60 MATPS\$ DIS . . . 1.0 P 8602BA08
-WB-9 1 . . 0.1 G-32 1 . . 0.1

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OPERATION PROFILE SAS

NAME	ALC SA	DATE	RCC MATPS	NOTES						
ITEM CD	PCN	08006ASUB1	WCD	TA108H	WCDDATE	88065	QTY	%	HRS	EQUIP CODE
OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND TYPE	MAND F	SKILL CD/LVL	QTY	%	HRS	
75		MATPS	DIS	S						
75		^I MATPS	DIS	1.0 P		S602BA08 WG-9	1		0.1	G-32
75		^I MATPS	DIS	P			1		0.1	G-33
75		^I MATPS	DIS	P			1		0.1	G-24
80		MATPS	DIS	1.00	I					
80		MATPS	DIS	S						
80		^I MATPS	DIS	1.0 P		S602BA08 WG-9	1		0.1	G-32
80		^I MATPS	DIS	P			1		0.1	G-33
85		MATPS	DIS	1.00	I					
85		MATPS	DIS	S						
85		^I MATPS	DIS	1.0 P		S602BA08 WG-9	1		0.1	G-32
85		^I MATPS	DIS	P			1		0.1	G-33

OPERATION PROFILE SAS

SHEET 8 OF

NAME	ITEM CD	PCN	08006ASUB1	OPER	HIST	MAND	OPER	MAND	OPER	TYPE	F	HRS	CD/LVL	SKILL	WCD	TA108H	WCDDATE	88065	DATE	RCC	MATPS	QTY	%	HRS	EQUIP	CODE	NOTES
	100			DIS						P												1			G-25		.1
	100			DIS						P												1			G-33		0.1
	120			DIS						I																	
	120			DIS						S																	
	120			DIS						P												1			G-32		0.1
	120			DIS						P												1			G-33		0.1
	125			DIS						I																	
	125			DIS						S																	
	125			DIS						P												1			G-32		0.2
	125			DIS						P												1			G-33		0.2
	125			DIS						P												1			G-27		0.1
	125			DIS						P												1			G-28		0.1
	125			DIS						P												1			G-54		0.1

8602BA08
WG-9

8602BA08
WG-9

Holder Differences
Fig 2-1.5 ft per T
WCD needs Rev

I

SHEET 9 OF ---

SAS

OPERATION PROFILE

NAME	ALC SA	DATE	WCD	TA108H	WCDDATE	88065	RCC	MATPS	QTY	%	HRS	EQUIP CODE	NOTES
ITEM CD PCN 08006ASUB1													
OPER NUMB	OPER HIST MAND	OPER OCCR TYPE	MAND F HRS	SKILL CD/LVL	QTY	%	HRS						
130	MATPSS	DIS	1.00										
-130	MATPSS	DIS	1.00										
130	MATPSS	DIS	1.0 P	8602BA08 -WG-S	1		0.2		1				.1 -0-0
140	MATPSI	MOVE	1.00										
140	MATPSI	MOVE											
140	MATPSI	MOVE	1.0 P	8602BA08	1		0.1						
145	MATPSS	PREP	1.00										
145	MATPSS	PREP											
145	MATPSS	PREP	1.0 P	8602BA08 -WG-S	1		0.3						

FLOW PROCESS CHART

SUBJECT FIS-IFS DISCU Gas Generator Module DATE 5-22-89

ITEM CODE
PCN
NSN
P/N

WCD TA1084 WCD DATE 88065

03006A

CHART BEGINS _____

CHART ENDS _____

PREPARED BY APHolm

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
10	10	●▷▷□▽	DIS			○▷▷□▽	
15	15	○▷▷□▽	DIS			○▷▷□▽	
20	20	○▷▷□▽	DIS			○▷▷□▽	
25	25	●▷▷□▽	DIS			○▷▷□▽	
30	30	○▷▷□▽	DIS			○▷▷□▽	
35	35	●▷▷□▽	DIS			○▷▷□▽	
40	40	○▷▷□▽	DIS			○▷▷□▽	
45	45	○▷▷□▽	DIS			○▷▷□▽	
50	50	○▷▷□▽	DIS			○▷▷□▽	
55	55	●▷▷□▽	DIS			○▷▷□▽	
60	60	○▷▷□▽	DIS			○▷▷□▽	
65	65	○▷▷□▽	DIS			○▷▷□▽	
70	70	○▷▷□▽	ASSY			○▷▷□▽	
75	75	○▷▷□▽	DIS			○▷▷□▽	
80	80	○▷▷□▽	DIS			○▷▷□▽	
85	85	○▷▷□▽	DIS			○▷▷□▽	
90	90	○▷▷□▽	DIS			○▷▷□▽	
95	95	○▷▷□▽	DIS			○▷▷□▽	
100	100	○▷▷□▽	DIS			○▷▷□▽	
120	120	○▷▷□▽	DIS			○▷▷□▽	
125	125	○▷▷□▽	DIS			○▷▷□▽	
130	130	○▷▷□▽	DIS			○▷▷□▽	
140	140	○▷▷□▽	Route			○▷▷□▽	
145	145	○▷▷□▽	Route			○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	

○ OPERATION

▽ STORAGE

□ INSPECTION

▷ TRANSPORTATION

▷ DELAY

SAS

OPERATION PROFILE

SHEET 2 OF

RCC MATPSS I

NAME _____ ALC SA _____ DATE _____

ITEM CD PCN 08006ASUB2 WCD TAI06H WCDDATE 88070

OPER NUMB RCC OPER HIST MAND OPER MAND SKILL EQUIP CD/LVL QTY % HRS QTY % HRS QTY % HRS NOTES

30 ^IMATPSS DIS 1.0 ~~P~~ 8602BA08 1.0 .3 G-18 1 .3

30 ^IMATPSS DIS . . P . . ~~0.3~~ G-32 1 .3

30 ^IMATPSS DIS . . P . . G-33 1 .3

~~40 MATPSS DIS 1.00~~

40 ~~MATPSS DIS~~ ~~S~~

40 ^IMATPSS DIS 1.0 P 8602BA08 1.0 0.2 G-32 1 .2

40 ^IMATPSS DIS . . P . . G-19 1 .1

40 ^IMATPSS DIS . . P . . G-33 1 .2

~~50 MATPSS DIS 1.00~~

~~50 MATPSS DIS~~ ~~S~~

50 MATPSS DIS 1.0 P 8602BA08 1.0 0.3 G-32 1 .3

50 MATPSS DIS . . P . . G-64 1 .2

SAS

OPERATION PROFILE

NAME _____ ALC SA _____ DATE _____ RCC MATPS% I

ITEM CD PCN 08006ASJB2 WCD TA106H WCD DATE 88070

OPER NUMB RCC OPER HIST MAND OPER MAND SKILL EQUIP CODE

DESC OCCR TYPE F HRS CD/LVL QTY % HRS QTY % HRS NOTES

~~80 MATPSS DIS~~

I
80 MATPSS DIS . 1.0 P . 8602BA08 . 0.4 G-32 1 . 0.4

I
80 MATPSS DIS . . P . . G-33 1 . 0.4

~~85 MATPSS PREP 0.32~~

~~85 MATPSS PREP~~

I
85 MATPSS PREP . 1.0 P . 8602BA08 . 0.1 G-32 1 . 0.1

I
85 MATPSS PREP . . P . . G-33 1 . 0.1

FLOW PROCESS CHART

SUBJECT F15 JFS DISSY Power Turbine Module DATE 5-22-83

ITEM CODE
PCN
NSN
P/N

WCD TA 106 H WCD DATE 88070

08006A

CHART BEGINS _____

CHART ENDS _____

PREPARED BY APHolm

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
5	5	●◻◻◻	Prep			○◻◻◻	
10	10	●◻◻◻	DIS			○◻◻◻	
20	20	●◻◻◻	DIS			○◻◻◻	
30	30	●◻◻◻	DIS			○◻◻◻	
40	40	●◻◻◻	DIS			○◻◻◻	
50	50	●◻◻◻	DIS			○◻◻◻	
60	60	●◻◻◻	DIS			○◻◻◻	
70	70	●◻◻◻	DIS			○◻◻◻	
80	80	●◻◻◻	DIS			○◻◻◻	
85	85	○◻◻◻				○◻◻◻	
		○◻◻◻				○◻◻◻	
		○◻◻◻				○◻◻◻	
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		○◻◻◻				○◻◻◻	

○ OPERATION ◻ STORAGE □ INSPECTION
◻ TRANSPORTATION ◻ DELAY

1.2 appy

SAS

RCC MATPS ^{SI}

OPERATION PROFILE

DATE 5-10-89

ALC SA

WCD TAI45R WCODE 88244

K. ATTARIA

ITEM CD PCN 08007A

OPER NUMB RCC OPER HIST MAND OPER MAND SKILL CD/LVL QTY % HRS EQUIP CODE

5 MATPS DIS . . . T

5 MATPS DIS . . . S

5 MATPS INSP 1.0 P . . . 8002BC05 1.0 L-1 1 1.0

5 MATPS INSP . . . P . . . 40-9 1.0 L-95 1 1.0

5 MATPS INSP . . . P 1.0 L-2 1 1.0

10 MATPS DIS . . . T

10 MATPS DIS . . . S

10 MATPS DIS 1.0 P . . . 2.0 2.0 L-1 1 2.0

10 MATPS DIS . . . P . . . 40-9 2.0 L-96 1 2.0

10 MATPS DIS . . . P 2.0 L-2 1 2.0

10 MATPS DIS . . . P 0.1 L-3 1 0.1

10 MATPS DIS . . . P 0.1 L-4 1 0.1

10 MATPS DIS . . . P 0.1 L-5 1 0.1

10 MATPS DIS . . . P 0.1 L-6 1 0.1

10 MATPS DIS . . . P 0.1 L-7 1 0.1

OPERATION PROFILE SAS

NAME _____

ALC SA _____

DATE _____

RCC MATPSS _____

ITEM CD PCN 08007A WCD TAI45R WCDDATE 88244

OPER NUMB RCC OPER DESC HIST MAND OPER MAND SKILL EQUIP CODE
 OCCR OCCR TYPE F HRS CD/LVL QTY % HRS QTY % HRS NOTES

10	MATPS ^I	DIS	.	P	.	.	.	.	.	.	L-8	1	.	0.1	
10	MATPS ^I	DIS	.	P	.	.	.	.	.	.	L-9	1	.	0.1	
10	MATPS ^I	DIS	.	P	.	.	.	.	.	.	L-10	1	.	0.1	
10	MATPS ^I	DIS	.	P	.	.	.	.	.	.	L-11	1	.	0.1	
10	MATPS ^I	DIS	.	P	.	.	.	.	.	.	L-12	1	.	0.1	
10	MATPS ^I	DIS	.	P	.	.	.	.	.	.	L-13	1	.	0.1	
10	MATPS ^I	DIS	.	P	.	.	.	.	.	.	L-14	1	.	0.1	
10	MATPS ^I	DIS	.	P	.	.	.	.	.	.	L-15	1	.	0.1	
10	MATPS ^I	DIS	.	P	.	.	.	.	.	.	L-16	1	.	0.1	
10	MATPS ^I	DIS	.	P	.	.	.	.	.	.	L-17	1	.	0.1	
10	MATPS ^I	DIS	.	P	.	.	.	.	.	.	L-18	1	.	0.1	
10	MATPS ^I	DIS	.	P	.	.	.	.	.	.	L-19	1	.	0.1	

OPERATION PROFILE SAS

NAME	ITEM CD	PCN	OPER	HIST	MAND	OPER	MAND	SKILL	DATE	WCD	TA145R	WCDDATE	88244	ALC	SA	RCC	MATPS	QTY	%	HRS	NOTES
	10		MATPS	DIS		P												1		0.1	
	10		MATPS	DIS		P												1		0.1	
	10		MATPS	DIS		P												1		0.1	
	10		MATPS	DIS		P												1		0.1	
	10		MATPS	DIS		P												1		0.1	
	10		MATPS	DIS		P												1		0.1	
	10		MATPS	DIS		P												1		0.1	
	10		MATPS	DIS		P												1		0.1	
	20		MATPS	DIS		P												1		1.0	
	20		MATPS	DIS		P												1		1.0	
	20		MATPS	DIS		P												1		1.0	

8602 PCOS

-WG-9

OPERATION PROFILE SAS

NAME _____ ALC SA _____ DATE _____ SHEET 4 OF _____

ITEM CD PCN 08007A WCD TAI45R WCDDATE 88244

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND TYPE	OPER F	MAND F	SKILL CD/LVL	QTY	%	HRS	EQUIP CODE	RCC MATPSS	QTY	%	HRS	NOTES
20	MATPS	DIS	.	P	.	.	L-29	1	.	0.2			1	.	0.2	
20	MATPS	DIS	.	P	.	.	L-30	1	.	0.2			1	.	0.2	
20	MATPS	DIS	.	P	.	.	L-31	1	.	0.2			1	.	0.2	
20	MATPS	DIS	.	P	.	.	L-32	1	.	0.2			1	.	0.2	
20	MATPS	DIS	.	P	.	.	L-33	1	.	0.2			1	.	0.2	
30	MATPS	DIS	.	T	.	.		.	.	.			.	.	.
30	MATPS	DIS	.	S	.	.		.	.	.			.	.	.
30	MATPS	DIS	.	1.0 P	.	.	L-1	1	.	1.0			1	.	1.0	84028005 -WG-9
30	MATPS	DIS	.	P	.	.	L-2	1	.	1.0			1	.	1.0	
30	MATPS	DIS	.	P	.	.	L-28	1	.	0.2			1	.	0.2	
30	MATPS	DIS	.	P	.	.	L-29	1	.	0.2			1	.	0.2	
30	MATPS	DIS	.	P	.	.	L-30	1	.	0.2			1	.	0.2	

OPERATION PROFILE SAS

SHEET 5 OF

NAME _____ DATE _____

ITEM CD PCN 08007A ALC SA WCD TAI45R WCDDATE 88244

OPER NUMB RCC MATPS¹ DIS OPER HIST MAND OPER MAND F HRS CD/LVL SKILL QTY % HRS EQUIP CODE QTY % HRS NOTES

30 MATPS¹ DIS . . . P . . . ~~40~~ L-31 1 . 0.2

30 MATPS¹ DIS . . . P . . . ~~40~~ L-32 1 . 0.2

30 MATPS¹ DIS . . . P . . . L-33 1 . 0.2

~~40 MATPS¹ DIS . . . T . . .~~

~~40 MATPS¹ DIS . . . S . . .~~

40 MATPS¹ DIS . . . 1.0 P . . . ^{8602BC05} ~~40~~ L-1 1 . 1.0

40 MATPS¹ DIS . . . P . . . L-2 1 . 1.0

40 MATPS¹ DIS . . . P . . . L-34 1 . 0.2

40 MATPS¹ DIS . . . P . . . L-35 1 . 0.2

40 MATPS¹ DIS . . . P . . . L-36 1 . 0.2

40 MATPS¹ DIS . . . P . . . L-37 1 . 0.2

40 MATPS¹ DIS . . . P . . . L-38 1 . 0.2

40 MATPS¹ DIS . . . P . . . L-39 1 . 0.2

7:22
5

OPERATION PROFILE SAS

NAME	ITEM CD	PCN	08007A	ALC SA	WCD	T145R	WCDDATE	88244	DATE	RCC	MATPS	QTY	%	HRS	EQUIP	CODE	NOTES
45	MATPS	DIS															
45	MATPS	DIS															
45	MATPS	DIS										1		1.0	L-1		
45	MATPS	DIS										1		1.0	L-2		
45	MATPS	DIS										1		0.3	L-10		
45	MATPS	DIS										1		0.3	L-40		
45	MATPS	DIS										1		0.3	L-41		
50	MATPS	DIS										1		1.0			
50	MATPS	DIS										1					
50	MATPS	DIS										1		1.0			

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8602Bcos

8602Bcos

MOVE

FLOW PROCESS CHART

SUBJECT CENTRAL GEAR BOX DISASSEMBLY

DATE 5/22/89

ITEM CODE

PCN
NSN
P/N

08007A

WCD TAH5R

WCD DATE

88244

CHART BEGINS OPERATION 005 CENTRAL GEAR BOX INSPECTION

CHART ENDS OPERATION 050 ROUTE PARTS PREPARED BY KA

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
5	005	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/>	VISUAL INSP.			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
10	010	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	DISASSEMBLE			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
20	020	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	//			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
30	030	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	//			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
40	040	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	//			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
45	045	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	//			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
50	050	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	ROUTE PARTS			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
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OPERATION

STORAGE

INSPECTION

TRANSPORTATION

DELAY

Att: 100-87

2009
happy

SAS

SHEET 1 OF 3

OPERATION PROFILE

NAME K Attaria

DATE 5-15-89

RCC MATPSI

ALC SA

ITEM CD PCN 10598A WCD TA079A WCD DATE 88245

OPER NUMB RCC OPER HIST MAND OPER MAND SKILL EQUIP CODE

F HRS CD/LVL QTY % HRS

NOTES

5 MATPSI DIS
EVELYN HALL
925-5330
FOR:MM ALTERNATE

5 MATPSI DIS . 1.0 S . 8602BA08 1 . 0.2

~~5~~ MATPSI DIS . . P . ~~WG-9~~

~~10~~ MATPSI DIS . . T

~~10~~ MATPSI DIS . . S

10 MATPSI DIS . 1.0 P . 8602BA08 1 . 0.6
~~WG-9~~

~~20~~ MATPSI DIS . . T

~~20~~ MATPSI DIS . . S

20 MATPSI DIS . 1.0 P . 8602BA08 1 . 0.1
~~WG-9~~ AB-8 ✓

20 MATPSI DIS . . P AB-9 ✓

20 MATPSI DIS . . P AB-10 ✓

20 MATPSI DIS . . P AB-11 ✓

20 MATPSI DIS . . P AB-12 ✓

OPERATION PROFILE SAS

SHEET 2 OF

NAME	ITEM CD	PCN	CD	PCN	WCD	TA079A	WCD	DATE	88245	ALC	SA	RCC	MATPSI	DIS	HIST	MAND	OPER	MAND	SKILL	EQUIP	CD/LVL	QTY	%	HRS	QTY	%	HRS	NOTES	
	20	MATPSI	DIS																		AB-13	1						0.1	
	30	MATPSI	DIS																										
	30	MATPSI	DIS																										
	30	MATPSI	DIS																										
	35	MATPSI	DIS																										
	35	MATPSI	DIS																										
	35	MATPSI	DIS																										
	38	MATPSI	DIS																										
	38	MATPSI	DIS																										
	38	MATPSI	DIS																										
	40	MATPSI	DIS																										
	40	MATPSI	DIS																										

Route

Post and Route parts
to cleaning

OPERATION PROFILE SAS

SHEET 3 OF

NAME _____ ALC SA _____ DATE _____ RCC MATPSI _____
 ITEM CD PCN 10598A WCD TA079A WCDDATE 88245
 OPER NUMB RCC OPER DESC HIST MAND OPER MAND SKILL CD/LVL QTY % HRS EQUIP CODE
 40 ~~MATPSI DIS~~ ~~P~~ ~~WG-8~~ 1-0

NOTES

FLOW PROCESS CHART

SUBJECT ATSC 100-87 STARTER DISASSEMBLY

DATE 5/24/89

ITEM CODE
PCN 10598A
MSN
P/M

WCD TA079A

WCD DATE 88245

CHART BEGINS OPERATION 5

CHART ENDS OPERATION 40

PREPARED BY K Attari

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
5	5	⊙▷▷□▽	SET UP			○▷▷□▽	
10	10	⊙▷▷□▽	DISASSEMBLY			○▷▷□▽	
20	20	⊙▷▷□▽	"			○▷▷□▽	
30	30	⊙▷▷□▽	"			○▷▷□▽	
35	35	⊙▷▷□▽	"			○▷▷□▽	
38	38	○▷▷□▽	MOVE B/S			○▷▷□▽	
40	40	○▷▷□▽	MOVE B/S			○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
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		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	

OPERATION STORAGE INSPECTION
 TRANSPORTATION DELAY

ATSC 00-97-97A

diranay

SAS

OPERATION PROFILE

NAME K Attaria DATE 5-15-89

ITEM CD PCN 10718A WCD TAO42T WCD DATE 88232

OPER NUMB RCC HIST MAND OPER MAND SKILL CD/LVL QTY % HRS EQUIP CODE
5 ~~MATPSI DIS~~ T ~~WG-8~~ 0.1
S MATPSI DIS . 1.0 S . 8602BA08 1 . 0.2
5 ~~MATPSI DIS~~ P ~~WG-8~~ 0.1

NOTES
EVELYN HALL
925-5330
FORMAN ALTERNATE

ITEM	CD	PCN	OPER	MAND	OPER	MAND	SKILL	CD/LVL	QTY	%	HRS	EQUIP	CODE
10	MATPSI DIS												
10	MATPSI DIS		P					1	0.3		0.3	AB-9	
10	MATPSI DIS		P									AB-17	
10	MATPSI DIS		P									AB-18	

ITEM	CD	PCN	OPER	MAND	OPER	MAND	SKILL	CD/LVL	QTY	%	HRS	EQUIP	CODE
20	MATPSI DIS												
20	MATPSI DIS		P					1	0.8		0.8	AB-14	
20	MATPSI DIS		P									AB-8	
20	MATPSI DIS		P									AB-15	

OPERATION PROFILE SAS

NAME	ITEM CD	PCN	ALC SA	DATE	WCD	TA042T	WCDDATE	82232	OPER	HIST	MAND	OPER	MAND	SKILL	EQUIP	CODE	RCC	MATPSI	DIS	QTY	%	HRS	QTY	%	HRS	NOTES
55	MATPSI	DIS																								
55	MATPSI	DIS																								
60	MATPSI	DIS																								
60	MATPSI	DIS																								
70	MATPSI	DIS																								
70	MATPSI	DIS																								
80	MATPSI	DIS																								
80	MATPSI	DIS																								
90	MATPSI	DIS																								

*Part of Route parts
to cleaning.*

1)

FLOW PROCESS CHART

SUBJECT ATSC 100-97-97A STARTER DISASSEMBLY

DATE 5/24/89

ITEM CODE
PCN 10718A
NSN
P/N

WCD TA042T

WCD DATE 88232

CHART BEGINS OPERATION 005

CHART ENDS OPERATION 090

PREPARED BY K. ATTARIA

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
5	5	⊙▷▷▷□▽	SET UP			○▷▷▷□▽	
10	10	⊙▷▷▷□▽	DISASSEMBLY			○▷▷▷□▽	
20	20	⊙▷▷▷□▽	"			○▷▷▷□▽	
30	30	⊙▷▷▷□▽	"			○▷▷▷□▽	
40	40	⊙▷▷▷□▽	"			○▷▷▷□▽	
50	50	⊙▷▷▷□▽	"			○▷▷▷□▽	
60	60	⊙▷▷▷□▽	"			○▷▷▷□▽	
70	70	⊙▷▷▷□▽	"			○▷▷▷□▽	
80	80	⊙▷▷▷□▽	TAG PARTS			○▷▷▷□▽	
90	—	○▷▷▷□▽	SORT / ROUTE			○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	

○ OPERATION ▽ STORAGE □ INSPECTION
▷ TRANSPORTATION ◻ DELAY

SAS OPERATION PROFILE

SHEET 3 OF

I

NAME	ITEM CD	PCN	12712A	ALC SA	WCD TA998L	WCDDATE	88124	DATE	RCC MATPSI	QTY	% HRS	EQUIP CODE	NOTES
	OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND TYPE	MAND F	SKILL CD/LVL	% HRS	QTY	% HRS	EQUIP CODE	NOTES	
70	MATPS DIS	MATPSI	 	 	 	 	 	 	 	 	 	 	
70	MATPS DIS	MATPSI	1.0 P			8602BA08		0.3	1	0.3	J-23		
70	MATPS DIS	MATPSI		P					1	0.3	J-39		
70	MATPS DIS	MATPSI		P					1	0.3	J-1		
80	MATPS DIS	MATPSI	 	 	 	 	 	 	 	 	 	 	
80	MATPS DIS	MATPSI	1.0 P			8602BA08		0.1	1	0.1	J-39		
80	MATPS DIS	MATPSI		P					1	0.1	J-23		
80	MATPS DIS	MATPSI	 	 	 	 	 	 	 	 	 	 	
90	MATPS DIS	MATPSI	1.0 P			8602BA08		0.8	1	0.8	J-39		
90	MATPS DIS	MATPSI		P					1	0.8	J-23		
90	MATPS DIS	MATPSI		P					1	0.8	J-43		

T

SHEET 4 OF

SAS

OPERATION PROFILE

NAME _____ ALC SA _____ DATE _____
 ITEM CD PCN 12712A WCD TA998L WCD DATE 88124

OPER NUMB RCC OPER DESC HIST MAND OPER MAND SKILL EQUIP CODE
 OCCR OCCR TYPE F HRS CD/LVL QTY % HRS

~~100 MATPSS DIS~~
~~MATPSSI~~

~~100 MATPSS DIS~~
~~MATPSSI~~

100 MATPSS DIS . 1.0 P 0.5 J-23 1 . 0.5
 MATPSSI ~~8602BA08~~

100 MATPSS DIS . . . P 0.5 J-39 1 . 0.5
 MATPSSI

100 MATPSS DIS . . . P 0.5 J-42 1 . 0.5
 MATPSSI

~~110 MATPSS DIS~~ T
~~MATPSSI~~

~~110 MATPSS DIS~~ S
~~MATPSSI~~

110 MATPSS DIS . 1.0 P 0.2 J-44 1 . 0.2
 MATPSSI ~~8602BA08~~

110 MATPSS DIS . . . P 0.2 J-39 1 . 0.2
 MATPSSI

110 MATPSS DIS . . . P 0.2 J-23 1 . 0.2
 MATPSSI

110 MATPSS DIS . . . P 0.2 J-45 1 . 0.2
 MATPSSI

~~120 MATPSS DIS~~ T
~~MATPSSI~~

RCC MATPSS

QTY

%

HRS

NOTES

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SHEET OF

SAS

OPERATION PROFILE

NAME _____ ALC SA _____ DATE _____
 ITEM CD PCN 12712A WCD TA98L WCD DATE 88124

RCC MATPS

OPER NOMB RCC OPER DESC HIST MAND OPER TYPE F HRS CD/LVL SKILL QTY % HRS EQUIP CODE

135 ~~MATPS DIS~~ ~~MATPS I~~ 6

135 MATPS DIS 1.0 P 8602BA08
 MATPS I 1 0.2 J-39

135 MATPS DIS P J-23
 MATPS I 1 0.2

140 MATPS DIS T

140 MATPS DIS S

140 MATPS DIS 1.0 P 8602BA08
 MATPS I 1 0.2 J-39

140 MATPS DIS P J-23
 MATPS I 1 0.2

150 MATPS DIS T

150 MATPS DIS S

150 MATPS DIS 1.0 P 8602BA08
 MATPS I 1 0.3 J-39

150 MATPS DIS P J-23
 MATPS I 1 0.3

150 MATPS DIS P J-46
 MATPS I 1 0.3

SAS

OPERATION PROFILE

SHEET 7 OF

RCC MATPS I

DATE

ALC SA WCD TA988L WCDDATE 88124

NAME

ITEM CD	PCN	12712A	OPER	HIST	MAND	OPER	MAND	SKILL	EQUIP	CD/LV:	QTY	%	HRS	QTY	%	HRS	NOTES
155	MATPSS DIS	AAATPSI															
155	MATPSS DIS	AAATPSI															
155	MATPSS DIS		1.0 P					8602BA08			1		0.2	1		0.2	
155	MATPSS DIS																
160	MATPSS DIS	AAATPSI															
160	MATPSS DIS		1.0 P					8602BA08			1		0.5	1		0.5	
160	MATPSS DIS																
165	MATPSS DIS	AAATPSI															
165	MATPSS DIS		1.0 P					8602BA08			1		0.2	1		0.2	
165	MATPSS DIS																
170	MATPSS DIS	AAATPSI															

✓

J-23
Faint note

SAS

OPERATION PROFILE

SHEET 8 OF

RCC MATPS I

DATE

ALC SA

WCD TA998L

WCD DATE 88124

ITEM CD PCN 12712A

OPER NUBR RCC OPER HIST MAND OPER MAND SKILL EQUIP CD/LVL QTY % HRS QTY % HRS QTY % HRS

~~170 MATPSS DIS MATPSI~~ ~~1.0 P~~ ~~0.1 J-39~~ ~~1~~ ~~0.1~~ ~~0.1~~

170 MATPSS DIS MATPSI 1.0 P 0.1 J-39 1 0.1 0.1

170 MATPSS DIS MATPSI P J-23 1 0.1 0.1

~~180 MATPSS DIS MATPSI~~ ~~1.0 P~~ ~~0.2 J-39~~ ~~1~~ ~~0.2~~ ~~0.2~~

180 MATPSS DIS MATPSI 1.0 P 0.2 J-39 1 0.2 0.2

180 MATPSS DIS MATPSI P J-23 1 0.2 0.2

~~190 MATPSS DIS MATPSI~~ ~~1.0 P~~ ~~0.3 J-39~~ ~~1~~ ~~0.3~~ ~~0.3~~

190 MATPSS DIS MATPSI 1.0 P 0.3 J-39 1 0.3 0.3

190 MATPSS DIS MATPSI P J-23 1 0.3 0.3

~~195 MATPSS DIS MATPSI~~ ~~1.0 P~~ ~~0.3 J-39~~ ~~1~~ ~~0.3~~ ~~0.3~~

195 MATPSS DIS MATPSI 1.0 P 0.3 J-39 1 0.3 0.3

OPERATION PROFILE SAS

NAME _____ ALC SA _____ DATE _____ RCC MATPS I

ITEM CD PCN 12712A WCD TA988L WCD DATE 88124

OPER NUMB RCC OPER HIST MAND OPER MAND SKILL EQUIP CODE

DESC OCCR TYPE F HRS CD/LVL QTY % HRS QTY % HRS NOTES

210 MATPS DIS ~~MATPSI~~ 1 0.3 J-39

210 MATPS DIS 1 0.3 J-23

210 MATPS DIS 1 0.3 J-33

215 ~~MATPS DIS~~ ~~MATPSI~~ 1 0.2 J-39

215 ~~MATPS DIS~~ ~~MATPSI~~ 1 0.2 J-23

220 ~~MATPS DIS~~ ~~MATPSI~~ 1 0.3 J-23

220 MATPS DIS 1 0.3 J-39

220 MATPS DIS 1 0.3

220 MATPS DIS 1 0.3

220 MATPS DIS 1 0.3

220 MATPS DIS 1 0.3

220 MATPS DIS 1 0.3

220 MATPS DIS 1 0.3

220 MATPS DIS 1 0.3

220 MATPS DIS 1 0.3

220 MATPS DIS 1 0.3

220 MATPS DIS 1 0.3

220 MATPS DIS 1 0.3

OPERATION PROFILE SAS

SHEET 11 OF

RCC MATPS ^I

NAME _____ ALC SA _____ DATE _____

ITEM CD PCN 12712A WCD TA998L WCD DATE 88124

OPER NUMB RCC OPER HIST MAND OPER MAND SKILL EQUIP CODE

DESC OCCR TYPE F HRS CD/LVL QTY % HRS QTY % HRS NOTES

~~225 MATPSS DIS~~ ~~MATPSS I~~

~~225 MATPSS DIS~~ ~~MATPSS I~~ S

225 MATPSS DIS 1.0 P 8602 BAO 8 1 0.2 J-23 1 0.2

~~MATPSS I~~

225 MATPSS DIS . . P

~~MATPSS I~~

~~220 MATPSS DIS~~ ~~MATPSS I~~

230 MATPSS DIS . . S

~~MATPSS I~~

230 MATPSS DIS 1.0 P 8602 BAO 8 1 0.3 J-23 1 0.3

~~MATPSS I~~

230 MATPSS DIS . . P

~~MATPSS I~~

235 MATPSS DIS

235 MATPSS DIS . . S

235 MATPSS DIS 1.0 P 8602 BAO 8 1 0.2 J-23 1 0.2

~~MATPSS I~~

235 MATPSS DIS . . P

~~MATPSS I~~

240 MATPSS DIS

~~MATPSS I~~

SAS
I
RCC MATPS

OPERATION PROFILE

NAME _____ ALC SA _____ DATE _____
 ITEM CD PCN 12712A WCD TA998L WCDDATE 88124

OPER NUMB RCC OPER HIST MAND OPER MAND SKILL EQUIP
 DESC OCCR TYPE F HRS CD/LVL QTY X HRS CODE NOTES

240 ~~MATPS~~ DIS ~~S~~

240 MATPS^I DIS . 1.0 P 0.1 J-23 0.1

240 MATPS^I DIS . . P J-39 0.1

250 ~~MATPS~~ DIS ~~T~~

250 ~~MATPS~~ DIS ~~S~~

250 MATPS^I DIS . 1.0 P 0.3 J-23 0.3

250 ~~MATPS~~ DIS ~~I~~ . . P J-39 0.3

250 MATPS^I DIS . . P J-18 0.3

250 MATPS^I DIS ~~I~~ . . P J-23 0.3

270 ~~MATPS~~ DIS ~~T~~

270 ~~MATPS~~ DIS ~~S~~

270 MATPS^I DIS . 1.0 P 0.3 J-39 0.3

8609 BA08
48-9

8609 BA08
48-9

8609 BA08
48-9

RCC MATPS *I*

OPERATION PROFILE SAS

NAME _____ ALC SA _____ DATE _____
 ITEM CD PCN 12712A WCD TA998L WCDDATE 88124

OPER NOMB RCC OPER HIST MAND OPER MAND SKILL CD/LVL QTY % HRS EQUIP CODE

270 ~~MATPS~~ DIS . . . P J-23 1 . . 0.3

~~280 MATPS DIS . . . T~~

~~280 MATPS DIS . . . S~~

280 MATPS DIS . . . *1.0 P* *8608BA08* 1 . . 0.2

280 MATPS DIS . . . P J-23 1 . . 0.2

~~290 MATPS DIS . . . T~~

~~290 MATPS DIS . . . S~~

290 MATPS DIS . . . *1.0 P* *8608BA08* 1 . . 0.2

290 MATPS DIS . . . P J-23 1 . . 0.2

~~295 MATPS DIS . . . T~~

~~295 MATPS DIS . . . S~~

295 MATPS DIS . . . *1.0 P* *8608BA08* 1 . . 0.2

295 MATPS DIS . . . P J-39 1 . . 0.2

SAS

OPERATION PROFILE

NAME _____ ALC SA _____ DATE _____
 ITEM CD PCN 12712A WCD TA998L WCDDATE 88124

OPER NUMB RCC OPER HIST MAND OPER MAND SKILL EQUIP
 DESC OCCR TYPE F HRS CD/LVL QTY % HRS CODE

RCC MATPS ^I QTY % HRS NOTES

200	MATPS	DIS	 	 	 	 	 	 	 	 	 	 	
300	MATPS	DIS	1.0 P	8602BA08	1	0.3	J-39	1	0.3				
300	MATPS	DIS	P				J-23	1	0.3				
305	MATPS	DIS	 	 	 	 	 	 	 	 	 	 	
305	MATPS	DIS	1.0 P	8602BA08	1	0.2	J-39	1	0.2				
305	MATPS	DIS	P				J-23	1	0.2				
310	MATPS	DIS	 	 	 	 	 	 	 	 	 	 	
310	MATPS	DIS	1.0 P	8602BA08	1	0.3	J-39	1	0.3				
310	MATPS	DIS	P				J-23	1	0.3				

SAS

SHEET 16 OF

OPERATION PROFILE

RCC MATPS I

RCC MATPS I

DATE

WCD

TA998L

WCD DATE 88124

ALC SA

MAND

SKILL

CD/LVL

QTY

X HRS

EQUIP CODE

ITEM CD	PCN	OPER	HIST	MAND	OPER	MAND	SKILL	CD/LVL	QTY	X	HRS	EQUIP	CODE	QTY	X	HRS	NOTES
340	MATPS	DIS															
340	MATPS	DIS		1.0	P				1		0.2	J-23		1		0.2	
340	MATPS	DIS			P							J-39		1		0.2	
350	MATPS	DIS															
350	MATPS	DIS															
350	MATPS	DIS		1.0	P				1		0.2	J-39		1		0.2	
350	MATPS	DIS			P							J-27		1		0.2	
350	MATPS	DIS			P							J-23		1		0.2	
370	MATPS	DIS															
370	MATPS	DIS															
370	MATPS	DIS		1.0	P				1		0.2	J-39		1		0.2	
370	MATPS	DIS			P							J-23		1		0.2	

8600BA08

8600BA08

8600BA08

SAS
I
RCC MATPS\$

OPERATION PROFILE
ALC SA DATE
WCD TA998L WCDDATE 88124

NAME
ITEM CD PCN 12712A
OPER NUMB RCC OPER HIST MAND OPER SKILL
DESC OCCR TYPE F HRS CD/LVL QTY % HRS EQUIP CODE

QTY % HRS NOTES

380	MATPS\$ DIS	DIS											
360	MATPS\$ DIS	DIS											
380	MATPS\$ DIS	DIS	1.0 P		1	0.2	J-39	1	0.2				
380	MATPS\$ DIS	DIS	P				J-23	1	0.2				
390	MATPS\$ DIS	DIS	T										
390	MATPS\$ DIS	DIS	S										
390	MATPS\$ DIS	DIS	1.0 P		1	0.3	J-39	1	0.3				
390	MATPS\$ DIS	DIS	P				J-23	1	0.3				
400	MATPS\$ DIS	DIS	T										
400	MATPS\$ DIS	DIS	S										
400	MATPS\$ DIS	DIS	1.0 P		1	0.2	J-23	1	0.2				
400	MATPS\$ DIS	DIS	P				J-39	1	0.2				
410	MATPS\$ DIS	DIS	T										

*

OPERATION PROFILE SAS

NAME	ITEM CD	PCN	ALC SA	DATE	WCD	TA998L	WCDDATE	88124	OPER	HIST	MAND	OPER	MAND	SKILL	EQUIP	CODE	QTY	%	HRS	QTY	%	HRS	NOTES
	410	MATPS	DIS																				
	410	MATPS	DIS																				
	410	MATPS	DIS																				
	410	MATPS	DIS																				
	420	MATPS	DIS																				
	420	MATPS	DIS																				
	420	MATPS	DIS																				
	420	MATPS	DIS																				
	430	MATPS	DIS																				
	430	MATPS	DIS																				
	430	MATPS	DIS																				

8602BA08

8602BA08

8602BA08

J-31

SAS
I
RCC MATPSS

OPERATION PROFILE

NAME _____ ALC SA _____ DATE _____
 ITEM CD PCN 12712A WCD TA998L WCDDATE 88124

OPER NUMB RCC OPER HIST MAND OPER MAND SKILL EQUIP
 DESC OCCR TYPE F HRS CD/LVL QTY % HRS CODE

430 MATPSS DIS . . . P J-47 1 . . 0.3

430 MATPSS DIS . . . P J-23 1 . . 0.3

~~440 MATPSS DIS . . . T~~

~~440 MATPSS DIS . . . S~~

440 MATPSS DIS . . . 1.0 P J-39 1 . . 0.2
 8602BA08
 -WG-9

440 MATPSS DIS . . . P J-23 1 . . 0.2

~~450 MATPSS DIS . . . T~~

~~450 MATPSS DIS . . . S~~

450 MATPSS DIS . . . 1.0 P J-39 1 . . 0.3
 8602BA08
 -WG-9

450 MATPSS DIS . . . P J-23 1 . . -0.3

450 MATPSS DIS . . . P J-48
~~J-48~~ 1 . . 0.3

~~460 MATPSS DIS . . . T~~

~~460 MATPSS DIS . . . S~~

SAS

OPERATION PROFILE

SHEET 20 OF

NAME	ITEM CD	PCN	12712A	ALC SA	WCD	TA998L	WCDDATE	88124	DATE	RCC	MATPS	DIS	HIST	MAN.	OPER	MAND	SKILL	EQUIP	CD/LVL	QTY	%	HRS	QTY	%	HRS	NOTES	
460	MATPS																										
460	MATPS																										
470	MATPS																										
470	MATPS																										
470	MATPS																										
470	MATPS																										
480	MATPS																										
480	MATPS																										
480	MATPS																										
490	MATPS																										

8608BA08

8609BA08

8608BA08

OPERATION PROFILE

NAME	ITEM CD	PCN	12712A	OPER	HIST	MAND	OPER	MAND	SKILL	EQUIP	RCC	MATPS	QTY	%	HRS	NOTES
				DESC	OC	TYPE	F	HRS	CD/LVL	CODE						
490	MATPS	DIS	S													
490	MATPS	DIS	1.0 P						86008A08	J-39			1		0.3	
490	MATPS	DIS	P							J-28			1		0.3	
490	MATPS	DIS	P							J-23			1		0.3	
<hr/>																
500	MATPS	DIS	T													
500	MATPS	DIS	1.0 P						86008A08	J-39			1		0.3	
500	MATPS	DIS	P							J-30			1		0.3	
500	MATPS	DIS	P							J-23			1		0.3	
<hr/>																
510	MATPS	DIS	I													
510	MATPS	DIS	1.0 P						86008A08	J-39			1		0.3	
510	MATPS	DIS	P							J-26			1		0.3	

I

OPERATION PROFILE

NAME _____ ALC SA _____ DATE _____ SAS _____
 ITEM CD PCN 12712A WCD TA998L WCDDATE 88124

OPER NUMB RCC OPER HIST MAND OPER MAND SKILL EQUIP
 DESC OCCR TYPE F HRS CD/LVL QTY % HRS CODE

RCC MATPS#

NOTES

510 MATPS# DIS . . . P J-23 1 . . 0.3

~~520 MATPS# DIS . . . P~~

~~520 MATPS# DIS . . . P~~

520 MATPS# DIS . . . P 8602BA08 1 . . 0.8

520 MATPS# DIS . . . P J-23 1 . . 0.8

~~530 MATPS# DIS . . . P~~

~~530 MATPS# DIS . . . P~~

530 MATPS# DIS . . . P 8602BA08 1 . . 3.5

530 MATPS# DIS . . . P J-23 1 . . 3.5

530 MATPS# DIS . . . P J-32 1 . . 0.5

530 MATPS# DIS . . . P J-35 1 . . 0.5

530 MATPS# DIS . . . P J-36 1 . . 0.5

OPERATION PROFILE SAS
 NAME _____ ALC SA _____ DATE _____
 WCD TA998L WCDDATE 88124

RCC MATPS# I

ITEM CD	PCN	12712A	OPER	HIST	MAND	OPER	MAND	SKILL	CD/LVL	QTY	%	HRS	EQUIP	CODE	QTY	%	HRS	NOTES
530	MATPS#	DIS			P								J-38		1		0.5	
530	MATPS#	DIS			P								J-1		1		0.5	
530	MATPS#	DIS			P								J-16		1		0.5	
530	MATPS#	DIS			P								J-25		1		0.5	
530	MATPS#	DIS			P								J-10		1		0.5	
530	MATPS#	DIS			P								J-21		1		0.5	
530	MATPS#	DIS			P								J-24		1		0.5	
530	MATPS#	DIS			P								J-29		1		0.5	
530	MATPS#	DIS			P								J-49		1		0.5	

~~535 MATPS# DIS~~

~~535 MATPS# DIS~~

535 MATPS# DIS 1.0 P I 8608BA08

~~540 MATPS# DIS~~

OPERATION PROFILE SAS

NAME _____ ALC SA _____ DATE _____
 ITEM CD PCN 12712A WCD TA998L WCDDATE 88124

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND TYPE	MAND F	SKILL CD/LVL	QTY	% HRS	EQUIP CODE	QTY	% HRS	NOTES
540	MATPS	DIS										
540	^I MATPS	DIS		1.0	P		1	3.5	J-23	1	3.5	
540	^I MATPS	DIS			P				J-39	1	3.5	
540	^I MATPS	DIS			P				J-56	1	0.5	
540	^I MATPS	DIS			P				J-7	1	0.5	
540	^I MATPS	DIS			P				J-8	1	0.5	
540	^I MATPS	DIS			P				J-17	1	0.5	
540	^I MATPS	DIS			P				J-9	1	0.5	
540	^I MATPS	DIS			P				J-22	1	0.5	
540	^I MATPS	DIS			P				J-25	1	0.5	
540	^I MATPS	DIS			P				J-40	1	0.5	
540	^I MATPS	DIS			P				J-41	1	0.5	

8609 BAs 8

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RCC MATPS

OPERATION PROFILE SAS

NAME _____ ALC SA _____ DATE _____ RCC MATPS **I**

ITEM CD PCN 12712A WCD TA998L WCDDATE 88124

OPER NMB RCC OPER HIST MAND OPER MAND SKILL EQUIP CD/LVL QTY % HRS QTY % HRS QTY % HRS NOTES

~~550 MATPS DIS~~

~~550 MATPS DIS~~

550 MATPS DIS **I** 1.0 P **8608BA09** 1 0.3 J-39 1 0.3

550 MATPS DIS **I** P J-4 1 0.3

550 MATPS DIS **I** P J-40 1 0.3

550 MATPS DIS **I** P J-23 1 0.3

~~560 MATPS DIS~~

~~560 MATPS DIS~~

560 MATPS DIS **I** 1.0 P **8608BA09** 1 0.8 J-37 1 0.3

560 MATPS DIS **I** P J-39 1 0.3

560 MATPS DIS **I** P J-15 1 0.3

560 MATPS DIS **I** P J-23 1 0.3

~~560 MATPS DIS~~

~~570 MATPS DIS~~

OPERATION PROFILE

NAME _____

ALC SA _____ DATE _____

WCD TA998L WCD DATE 88124

ITEM CD PCN 12712A

OPER NUMB RCC OPER HIST MAND OPER MAND SKILL EQUIP CODE

DESC OCCR TYPE F HRS CD/LVL QTY % HRS QTY % HRS

NOTES

570 MATPS DIS 1.0 P 1.0 0.5 J-39 1 .0.5

570 MATPS DIS P 1 .0.5

570 MATPS DIS P 1 .0.5

570 MATPS DIS P 1 .0.5

570 MATPS DIS P 1 .0.5

570 MATPS DIS P 1 .0.5

570 MATPS DIS P 1 .0.5

~~580 MATPS DIS P 1 .0.5~~

580 MATPS DIS 1.0 P 1 .0.5

580 MATPS DIS P 1 .0.5

580 MATPS DIS P 1 .0.5

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RCC MATPS

8608BA08

8608BA08

570 MATPS DIS

~~580 MATPS DIS~~

1.0 P

I

I

I

OPERATION PROFILE SAS

NAME _____

ALC SA _____

DATE _____

ITEM CD PCN 12712A WCD TA998L WCDDATE 88124

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND TYPE	MAND F	SKILL CD/LVL	QTY	% HRS	EQUIP CODE	QTY	% HRS	NOTES
580	<u>I</u>	MATPS DIS	.	P	.	.	.	.	J-40	1	0.5	
580	<u>I</u>	MATPS DIS	.	P	.	.	.	.	J-51	1	0.5	
590	I	MATPS DIS	.	P	.	.	.	.	.	.	.
590	I	MATPS DIS	.	P	.	.	.	.	.	.	.
590	<u>I</u>	MATPS DIS	.	1.0 P	.	8608BA08	1	0.5	J-39	1	0.5	
590	<u>I</u>	MATPS DIS	.	P	.	.	.	.	J-23	1	0.5	
590	<u>I</u>	MATPS DIS	.	P	.	.	.	.	J-3	1	0.5	
590	<u>I</u>	MATPS DIS	.	P	.	.	.	.	J-40	1	0.5	
590	<u>I</u>	MATPS DIS	.	P	.	.	.	.	J-54	1	0.5	
660	I	MATPS DIS	.	P	.	.	.	.	.	.	.
660	I	MATPS DIS	.	P	
600	<u>I</u>	MATPS DIS	.	1.0 P	.	8608BA08	1	0.5	J-39	1	0.5	
600	<u>I</u>	MATPS DIS	.	P	J-23	1	0.5	

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OPERATION PROFILE

NAME _____

ALC SA _____

DATE _____

ITEM CD PCN 12712A WCD TA988L WCD DATE 88124

OPER NMBR RCC OPER DESC HIST MAND OPER MAND SKILL EQUIP
 OCCR TYPE F HRS CD/LVL QTY % HRS CODE NOTES

OPER NMBR	RCC	OPER DESC	HIST OCCR	MAND TYPE	OPER MAND F	MAND HRS	SKILL CD/LVL	QTY	% HRS	EQUIP CODE	NOTES
600	MATPS ^I	DIS	.	P	.	.	J-53	1	0.5	J-53	
600	MATPS ^I	DIS	.	P	.	.	J-40	1	0.5	J-40	
600	MATPS ^I	DIS	.	P	.	.	J-12	1	0.5	J-12	
600	MATPS ^I	DIS	.	P	.	.	J-14	1	0.5	J-14	

OPER NMBR	RCC	OPER DESC	HIST OCCR	MAND TYPE	OPER MAND F	MAND HRS	SKILL CD/LVL	QTY	% HRS	EQUIP CODE	NOTES
610	MATPS ^I	DIS	.	T	.	.		.	.
610	MATPS ^I	DIS	.	S	.	.		.	.
610	MATPS ^I	DIS	.	P	.	1.0	8602BA08	1	0.8	J-39	
610	MATPS ^I	DIS	.	P	.	.	J-23	1	0.8	J-23	
610	MATPS ^I	DIS	.	P	.	.	J-40	1	0.8	J-40	
610	MATPS ^I	DIS	.	P	.	.	J-5	1	0.8	J-5	
610	MATPS ^I	DIS	.	P	.	.	J-22	1	0.8	J-22	
610	MATPS ^I	DIS	.	P	.	.	J-37	1	0.8	J-37	

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SAS

OPERATION PROFIT

RCC MATPS

DATE

ITEM CD PCN 12712A WCD TA998L WCD DATE 88124

OPER NUMB RCC HIST MAND OPER MAND SKILL CD/LVL QTY % HRS

610 MATPS# DIS I P J-52 1 . 0.8

610 MATPSI DIS P X-2 1 0.5

~~620 MATPS# DIS~~

620 MATPS# DIS 1.0 P 8602BA08 1 1.0

620 MATPS# DIS J-39 1 . 0.5

620 MATPS# DIS J-23 1 . 0.5

620 MATPS# DIS J-55 1 . 0.5

620 MATPS# DIS P X-2 1 0.5

~~630 MATPS# DIS~~

630 MATPS# DIS 1.0 P 8602BA08 1 2.0

630 MATPS# DIS J-39 1 . 0.5

630 MATPS# DIS J-23 1 . 0.5

630 MATPS# DIS J-6 1 . 0.5

630 MATPS# DIS J-20 1 . 0.5

630 MATPS# DIS J-40 1 . 0.5

630 MATPS# DIS P J-40 1 . 0.5

630 MATPS# DIS I J-40 1 . 0.5

OPERATION PROFILE SAS

NAME	ALC SA	DATE	RCC MATPS	QTY	%	HRS	NOTES
ITEM CD PCN 12712A	WCD TA998L	WCDDATE 88124					
OPER NUMB	OPER DESC	HIST MAND OCCR TYPE	MAND F	SKILL CD/LVL	QTY	%	HRS
630	MATPS	DIS	P		1		0.5
630	MATPS	DIS	P		1		0.5

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RCC MATPS

EQUIP CODE

J-21

J-11

I

I

FLOW PROCESS CHART

SUBJECT F16 ADG DISASSEMBLY

DATE 5-23-89

ITEM CODE
PCN
NSN
P/N

WCD TA998L WCD DATE 88124

127124

CHART BEGINS 10

CHART ENDS 1630

PREPARED BY A P Holm

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
10	10	●◊◊◻▽	DIS	240	240	●◊◊◻▽	DIS
20	20	●◊◊◻▽	DIS	250	250	●◊◊◻▽	DIS
30	30	●◊◊◻▽	DIS	270	270	●◊◊◻▽	DIS
40	40	●◊◊◻▽	DIS	280	280	●◊◊◻▽	DIS
50	50	●◊◊◻▽	DIS	290	290	●◊◊◻▽	DIS
60	60	●◊◊◻▽	DIS	300	300	●◊◊◻▽	DIS
70	70	●◊◊◻▽	DIS	305	305	●◊◊◻▽	DIS
80	80	●◊◊◻▽	DIS	310	310	●◊◊◻▽	DIS
90	90	●◊◊◻▽	DIS	320	320	●◊◊◻▽	DIS
100	100	●◊◊◻▽	DIS	330	330	●◊◊◻▽	DIS
110	110	●◊◊◻▽	DIS	335	335	●◊◊◻▽	DIS
120	120	●◊◊◻▽	DIS	340	340	●◊◊◻▽	DIS
125	125	●◊◊◻▽	DIS	350	350	●◊◊◻▽	DIS
130	130	●◊◊◻▽	DIS	370	370	●◊◊◻▽	DIS
135	135	●◊◊◻▽	DIS	380	380	●◊◊◻▽	DIS
140	140	●◊◊◻▽	DIS	390	390	●◊◊◻▽	DIS
150	150	●◊◊◻▽	DIS	400	400	●◊◊◻▽	DIS
155	155	●◊◊◻▽	DIS	410	410	●◊◊◻▽	DIS
160	160	●◊◊◻▽	DIS	420	420	●◊◊◻▽	DIS
165	165	●◊◊◻▽	DIS	430	430	●◊◊◻▽	DIS
170	170	●◊◊◻▽	DIS	440	440	●◊◊◻▽	DIS
180	180	●◊◊◻▽	DIS	450	450	●◊◊◻▽	DIS
190	190	●◊◊◻▽	DIS	460	460	●◊◊◻▽	DIS
195	195	●◊◊◻▽	DIS	470	470	●◊◊◻▽	DIS
200	200	●◊◊◻▽	DIS	480	480	●◊◊◻▽	DIS
205	205	●◊◊◻▽	DIS	490	490	●◊◊◻▽	DIS
210	210	●◊◊◻▽	DIS	500	500	●◊◊◻▽	DIS
215	215	●◊◊◻▽	DIS	510	510	●◊◊◻▽	DIS
220	220	●◊◊◻▽	DIS	520	520	●◊◊◻▽	DIS
225	225	●◊◊◻▽	DIS	530	530	●◊◊◻▽	DIS
230	230	●◊◊◻▽	DIS	540	540	●◊◊◻▽	DIS
235	235	●◊◊◻▽	DIS	550	550	●◊◊◻▽	DIS

○ OPERATION

▽ STORAGE

◻ INSPECTION

◊ TRANSPORTATION

◻ DELAY

LSC-20147

SUBJECT F16 ADG DISASSEMBLY FLOW PROCESS CHART DATE 5-23-89

ITEM CODE
PCN
NSN
P/N

WCD TA 998 L WCD DATE 88124

12712A

CHART BEGINS 10

CHART ENDS 630

PREPARED BY AP Holm

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
560	560	●DD□▽	DIS			○DD□▽	
570	570	●DD□▽	DIS			○DD□▽	
580	580	●DD□▽	DIS			○DD□▽	
590	590	●DD□▽	DIS			○DD□▽	
600	600	●DD□▽	DIS			○DD□▽	
610	610	●DD□▽	DIS			○DD□▽	
620	620	●DD□▽	DIS			○DD□▽	
623	630	●DD□▽	DIS			○DD□▽	
		○DD□▽				○DD□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
▷ TRANSPORTATION D DELAY

FIG: =S-DISASSEMBLY

F V

8:18 TUESDAY, MARCH 28, 1989 376

MATPSI
RCC-MATPSS

SHEET 1 OF 2

OPERATION PROFILE

SAS DATE 4-18-89

ALC SA

WCD TA030Q ✓ WCD DATE 86343 ✓

NAME AP Holm

ITEM CD PCN 13096A

OPER NUMB 10
RCC I
MATPS DIS

OPER DESC I
MAND OCCR / T
OPER TYPE

HIST MAND OCCR / T
MAND OCCR

SKILL CD/LVL
86028C09

QTY 1

% HRS 2.0

EQUIP CODE M-12

QTY 1

% HRS 0.3

EQUIP CODE M-1

QTY 1

% HRS 0.3

EQUIP CODE M-2

QTY 1

% HRS 2.0

EQUIP CODE M-3

QTY 1

% HRS 2.0

EQUIP CODE M-11

QTY 1

% HRS 0.1

EQUIP CODE M-4

QTY 1

% HRS 0.1

EQUIP CODE M-5

QTY 1

% HRS 0.1

EQUIP CODE M-6

QTY 1

% HRS 1.0

EQUIP CODE M-3

QTY 1

% HRS 1.0

T.O. 2JA3-57-

"Marty" Meach

Juan Martinez

Replaced

By WCD

TA 129U

Date 89

MATPSI

SAS

OPERATION PROFILE

DATE 4-18-89

ALC SA

WCD TA030Q ✓ WCDDATE 86343 ✓

NAME APH
ITEM CD PCN 13096A

OPER NUMB	RCC	OPER DESC	HIST OCCR	MAND TYPE	OPER F	MAND HRS	SKILL CD/LVL	QTY	X HRS	EQUIP CODE	QTY	X HRS	NOTES
20	MATPSI I	DIS	.	P	.	.	X-8	1	1.0		1	1.0	
20	MATPSI I	DIS	.	P	.	.	M-11	1	1.0		1	1.0	

30	MATPSI I	DIS	.	P	.	.		.	.		.	.
30	MATPSI I	DIS	.	S	.	.		.	.		.	.
30	MATPSI I	DIS	.	P	.	.	8602B609 M-9	1	2.0	M-7	1	0.1	
30	MATPSI I	DIS	.	P	.	.		.	.	M-8	1	1.0	
30	MATPSI I	DIS	.	P	.	.		.	.	M-9	1	0.5	
30	MATPSI I	DIS	.	P	.	.		.	.	M-10	1	0.2	
30	MATPSI I	DIS	.	P	.	.		.	.		.	.
30	MATPSI I	DIS	.	P	.	.		.	.	M-3	1	2.0	
30	MATPSI I	DIS	.	P	.	.		.	.		1	2.0	
30	MATPSI I	DIS	.	P	.	.		.	.		1	2.0	
30	MATPSI I	DIS	.	P	.	.		.	.		1	2.0	

SUBJECT FIG-TFS DISASSEMBLY FLOW PROCESS CHART

DATE 5-23-89

ITEM CODE
PCN
NSN
P/N

WCD TA0300 WCD DATE 86343

13096A

CHART BEGINS 10

CHART ENDS 30

PREPARED BY AP Holm

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
10	10	●◇◇□▽	DIS			○◇◇□▽	
20	20	●◇◇□▽	DIS			○◇◇□▽	
30	30	●◇◇□▽	DIS			○◇◇□▽	
		○◇◇□▽				○◇◇□▽	
		○◇◇□▽				○◇◇□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ◇ TRANSPORTATION D DELAY

STARTER C4542A

FLOW PROCESS CHART

SUBJECT Turbine Housing - HV DATE 6/1/89

ITEM CODE
 PCH
 NSN
 P.N

WCD CTA 2150 WCD DATE 89152

4542A

CHART BEGINS 010

CHART ENDS 030

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●DD□▽	Degrease			○DD□▽	
020	020	●DD□▽	Get Flat			○DD□▽	
030	030	○DD□▽	24 Hr Cool			○DD□▽	
		○DD□▽				○DD□▽	
		○DD□▽				○DD□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ◇ TRANSPORTATION ◐ DELAY

Startps 01-42A

SUBJECT Turbine Housing Assy FLOW PROCESS CHART DATE 6/3/39

ITEM CODE
PCN
NSN
P/N

WCD T72150 WCD DATE 88340

04542A

CHART BEGINS 001

CHART ENDS 195

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
001	001	●▷▷□▽	Info			○▷▷□▽	
005	005	○▷▷■▽	Insp FPI			○▷▷□▽	
007	007	●▷▷□▽	Tap Part			○▷▷□▽	
010	010	○▷▷■▽	Insp V/S			○▷▷□▽	
015	015	○▷▷■▽	Insp DIM			○▷▷□▽	
020	020	●▷▷□▽	Deburr			○▷▷□▽	
030	030	○▷▷□▽	Route - B/S			○▷▷□▽	
	031	○▷▷□▽	B/S			○▷▷□▽	
	032	○▷▷□▽				○▷▷□▽	
	033	●▷▷□▽				○▷▷□▽	
	060	●▷▷□▽				○▷▷□▽	
	065	○▷▷■▽				○▷▷□▽	
	070	●▷▷□▽				○▷▷□▽	
	071	●▷▷□▽				○▷▷□▽	
	073	●▷▷□▽				○▷▷□▽	
	075	○▷▷■▽				○▷▷□▽	
	086	●▷▷□▽				○▷▷□▽	
	090	●▷▷□▽				○▷▷□▽	
	095	●▷▷□▽				○▷▷□▽	
	096	●▷▷□▽				○▷▷□▽	
	140	●▷▷□▽				○▷▷□▽	
	150	●▷▷□▽				○▷▷□▽	
	170	○▷▷■▽				○▷▷□▽	
	180	●▷▷□▽				○▷▷□▽	
	185	○▷▷□▽				○▷▷□▽	
	186	○▷▷□▽				○▷▷□▽	
	190	●▷▷□▽				○▷▷□▽	
	192	●▷▷□▽	▽			○▷▷□▽	
030	195	○▷▷□▽	B/S			○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
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		○▷▷□▽				○▷▷□▽	

○ OPERATION ▽ STORAGE □ INSPECTION
▷ TRANSPORTATION ▽ DELAY

Start 045212A

FLOW PROCESS CHART CLEANING

SUBJECT Gear THWing Sid Assy

DATE 6/1/89

ITEM CODE
PCN
NSN
P/N

WCD CTA2180 WCD DATE 89152

4542A

CHART BEGINS 010

CHART ENDS 030

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●◊◊◻▽	Debase			○◊◊◻▽	
020	020	●◊◊◻▽	Grit Blast			○◊◊◻▽	
030	030	○◊◊◻▽	24 Hr Cool			○◊◊◻▽	
		○◊◊◻▽				○◊◊◻▽	
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○ OPERATION ▽ STORAGE ◻ INSPECTION
◊ TRANSPORTATION ◊ DELAY

Starter 04542A

SUBJECT Gear Housing Subassembly FLOW PROCESS CHART Inspection DATE 6/3/59

ITEM CODE PCM
 NSM
 PIN
WCD TA 2'180 WCD DATE 89040
04542A

CHART BEGINS 005
CHART ENDS 998 PREPARED BY J Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
005	005	●○○□▽				○○○□▽	
010	010	○○○■▽	Insp VIS			○○○□▽	
020	020	○○○■▽	Insp DIM			○○○□▽	
025	025	●○○□▽	Deburr			○○○□▽	
030	030	○○○□▽	Route - B/S			○○○□▽	
	031	○●○○□▽				○○○□▽	
	032	●○○□▽				○○○□▽	
	033	○○○□▽				○○○□▽	
	040	○○○□▽				○○○□▽	
	041	○○○□▽				○○○□▽	
	045	○○○■▽				○○○□▽	
	046	○○○■▽				○○○□▽	
	050	●○○□▽				○○○□▽	
	051	●○○□▽				○○○□▽	
	052	●○○□▽				○○○□▽	
	053	●○○□▽				○○○□▽	
	055	○○○■▽				○○○□▽	
	060	●○○□▽				○○○□▽	
	061	●○○□▽				○○○□▽	
	062	●○○□▽				○○○□▽	
	065	●○○□▽				○○○□▽	
	070	●○○□▽				○○○□▽	
	075	●○○□▽				○○○□▽	
	080	●○○□▽				○○○□▽	
	081	○○○■▽				○○○□▽	
	082	●○○□▽				○○○□▽	
	090	○○○□▽				○○○□▽	
	091	○○○□▽				○○○□▽	
	100	●○○□▽				○○○□▽	
	105	●○○□▽				○○○□▽	
	110	●○○□▽				○○○□▽	
030	998	○○○□▽				○○○□▽	

○ OPERATION ▽ STORAGE □ INSPECTION
◇ TRANSPORTATION D DELAY

Starter (4542 A

SUBJECT Exhaust Assy FLOW PROCESS CHART 02 Feb 1969 DATE 6/1/89

ITEM CODE WCD CTA2300 WCD DATE 89152
 PCN
 NSN 4542A
 P/N

CHART BEGINS 010
 CHART ENDS 030 PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●◊◊◻▽	Wash			◊◊◊◻▽	
020	020	●◊◊◻▽	Grit Blast			◊◊◊◻▽	
030	030	◊◊◊◻▽	24 Hr Cool			◊◊◊◻▽	
		◊◊◊◻▽				◊◊◊◻▽	
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○ OPERATION ▽ STORAGE ◻ INSPECTION
 ◊ TRANSPORTATION ◐ DELAY

STARTER 04542A

SUBJECT Exhaust housing FLOW PROCESS CHART Inspection DATE 6/3/59

ITEM CODE
PCN
NSN
P/N

WCD TH 2300 WCD DATE 81038

04542A

CHART BEGINS 008

CHART ENDS 190

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
008	008	○▷▷□▽	Insp VIS	↓	195	○▷▷□▽	B/S
010	010	○▷▷□▽	Insp VIS	▽	200	○▷▷□▽	↓
020	020	○▷▷□▽	B/S	020	998	○▷▷□▽	▽
	025	○▷▷□▽				○▷▷□▽	
	030	○▷▷□▽				○▷▷□▽	
	031	○▷▷□▽				○▷▷□▽	
	033	○▷▷□▽				○▷▷□▽	
	034	●▷▷□▽				○▷▷□▽	
	035	○▷▷□▽				○▷▷□▽	
	036	○▷▷□▽				○▷▷□▽	
	038	●▷▷□▽				○▷▷□▽	
	044	○▷▷□▽				○▷▷□▽	
	047	○▷▷□▽				○▷▷□▽	
	050	●▷▷□▽				○▷▷□▽	
	051	○▷▷□▽				○▷▷□▽	
	052	○▷▷□▽				○▷▷□▽	
	060	●▷▷□▽				○▷▷□▽	
	065	○▷▷□▽				○▷▷□▽	
	070	●▷▷□▽				○▷▷□▽	
	080	●▷▷□▽				○▷▷□▽	
	090	●▷▷□▽				○▷▷□▽	
	100	●▷▷□▽				○▷▷□▽	
	110	●▷▷□▽				○▷▷□▽	
	120	●▷▷□▽				○▷▷□▽	
	130	●▷▷□▽				○▷▷□▽	
	140	●▷▷□▽				○▷▷□▽	
	150	●▷▷□▽				○▷▷□▽	
	160	●▷▷□▽				○▷▷□▽	
	165	○▷▷□▽				○▷▷□▽	
	170	○▷▷□▽				○▷▷□▽	
↑	185	●▷▷□▽	↓			○▷▷□▽	
020	190	○▷▷□▽	↓			○▷▷□▽	

○ OPERATION

▷ TRANSPORTATION

▽ STORAGE

▷ DELAY

□ INSPECTION

LSC-20147

SUBJECT Turbine Rotor FLOW PROCESS CHART CLEANING DATE 6/1/89

ITEM CODE
PCN
NSN
PIN

WCD CTA2320 WCD DATE 89/52

21.72 ft

CHART BEGINS 010

CHART ENDS 030

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMSCLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●○○□▽	Deprime			○○○□▽	
020	020	●○○□▽	Grit Blast			○○○□▽	
030	030	○○○□▽	24 Hr Cool			○○○□▽	
		○○○□▽				○○○□▽	
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OPERATION ▽ STORAGE □ INSPECTION
 TRANSPORTATION ◊ DELAY

Starter 04542.7

SUBJECT Turbine Rotor FLOW PROCESS CHART Inspection DATE 6/3/09

ITEM CODE PCN NSN P/N WCD TH2320 WCD DATE 89095

CHART BEGINS Op 010

CHART ENDS Op 108 PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○●D□▽	Insp FPI	108	210	●D□▽	
015	015	○●D□▽	Insp VIS	↑	215	●D□▽	
020	020	○●D□▽	Insp VIS		220	○●D□▽	
025	025	○●D□▽	Insp VIS		232	○●D□▽	
030	030	○●D□▽	Insp DIM		234	○●D□▽	
040	040	○●D□▽	Insp DIM	:	236	○●D□▽	
050	050	○●D□▽	Insp DIM	-	240	●D□▽	
060	060	○●D□▽	Insp DIM	:	250	●D□▽	
065	065	○●D□▽	Insp DIM	.	252	●D□▽	
070	070	○●D□▽	Insp DIM	.	254	●D□▽	
080	080	○●D□▽	Insp DIM		256	●D□▽	
090	090	○●D□▽	Insp DIM	.	258	●D□▽	
095	095	○●D□▽	Insp DIM		260	●D□▽	
100	100	○●D□▽	Insp DIM		265	●D□▽	
103	103	○●D□▽	Insp DIM		270	●D□▽	
105	105	○●D□▽	Insp DIM		275	●D□▽	
106	035	○●D□▽	Insp DIM		280	●D□▽	
107	106	○●D□▽	Route - Parts	↓	300	●D□▽	
108	107	○●D□▽	Route - PIs	108	310	○●D□▽	
A	108	●D□▽	PIs			○●D□▽	
	120	●D□▽				○●D□▽	
	130	●D□▽				○●D□▽	
	140	●D□▽				○●D□▽	
	150	●D□▽				○●D□▽	
	160	○●D□▽				○●D□▽	
	162	○●D□▽				○●D□▽	
	164	○●D□▽				○●D□▽	
	165	●D□▽				○●D□▽	
	170	○●D□▽				○●D□▽	
	180	●D□▽				○●D□▽	
	190	○●D□▽				○●D□▽	
108	200	○●D□▽				○●D□▽	

○ OPERATION ▽ STORAGE □ INSPECTION
 ▷ TRANSPORTATION D DELAY

Starter 04542A

FLOW PROCESS CHART

SUBJECT Gear Housing Subassembly

DATE 6/9/89

ITEM CODE
 PCN
 NSN
 P/N

04542A

WCD TH2740 WCD DATE 87300

CHART BEGINS 010

CHART ENDS 030

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○◇D■▽	Insp FPI			○◇D□▽	
020	020	○◇D■▽	Insp MAG			○◇D□▽	
030	030	○◇D□▽	Ronte-Dim			○◇D□▽	
		○◇D□▽				○◇D□▽	
		○◇D□▽				○◇D□▽	
		○◇D□▽				○◇D□▽	
		○◇D□▽				○◇D□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ◇ TRANSPORTATION D DELAY

Generic

SUBJECT Starter 04542 A FLOW PROCESS CHART Clean DATE 6/1/99

ITEM CODE
 PCK
 NSM
 P.H

WCD G4C WCD DATE 39152

4542H

CHART BEGINS 010

CHART ENDS 040

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●○○□▽	Degrease			○○○□▽	
020	020	●○○□▽	Hot Water Wash			○○○□▽	
030	030	●○○□▽	Grit Blast			○○○□▽	
040	040	○○○□▽	24 Hr Cool			○○○□▽	
		○○○□▽				○○○□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ◀ TRANSPORTATION ▷ DELAY

Start Pr 045427 Generic

SUBJECT Exhaust Hsg. FLOW PROCESS CHART Inspection DATE 6/3/89

ITEM CODE WCD GJI WCD DATE 89152
PCN
NSN 045427
PIN

CHART BEGINS 010
CHART ENDS 090 PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●○▷□▽	Info.			○▷▷□▽	
020	020	○▷▷■▽	Insp VIS			○▷▷□▽	
030	030	●○▷□▽	Deburr			○▷▷□▽	
040	040	○▷▷■▽	Insp FPI			○▷▷□▽	
050	050	○▷▷■▽	Insp DIM			○▷▷□▽	
060	060	○▷▷□▽	Route - B/S			○▷▷□▽	
070	070	○▷▷□▽	Route - Parts			○▷▷□▽	
080	080	○▷▷■▽	Insp HYD			○▷▷□▽	
090	090	○▷▷□▽	Route - F/S			○▷▷□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
▷ TRANSPORTATION ▷ DELAY

SUBJECT F15 LH AMMS FLOW PROCESS CHART Cleaning DATE 5/7/89

ITEM CODE
PCN
NSN
PM

WCD CTA071K WCD DATE 89152
08004H

CHART BEGINS 010

CHART ENDS 020

PREPARED BY Jim Eton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●▷▷□▽	Sonic Clean			○▷▷□▽	
020	020	○▷▷□▽	24 Hr Cool			○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
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- OPERATION ▽ STORAGE INSPECTION
 TRANSPORTATION ◻ DELAY

FIS 2A6B

SUBJECT Flange General Mounting FLOW PROCESS CHART Inspection DATE 6/7/89

ITEM CODE PCN NSM P/M
 WCD TA071K WCD DATE 89107
08004A

CHART BEGINS OP 005
 CHART ENDS 140 120 PREPARED BY Tim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
005	005	○◇D■▽	Insp VIS			○◇D□▽	
010	010	○◇D■▽	Insp VIS			○◇D□▽	
020	020	○◇D■▽	Insp DIM			○◇D□▽	
030	030	○◇D■▽	Insp VIS			○◇D□▽	
040	040	●◇D□▽	Strip Paint			○◇D□▽	
050	050	○◇D■▽	Insp FPI			○◇D□▽	
060	060	○◇D□▽	Route - B/S			○◇D□▽	
	070	○◇D□▽				○◇D□▽	
	072	●◇D□▽				○◇D□▽	
	074	●◇D□▽				○◇D□▽	
	075	●◇D□▽				○◇D□▽	
	076	●◇D□▽				○◇D□▽	
	077	●◇D□▽				○◇D□▽	
	078	●◇D□▽				○◇D□▽	
	080	●◇D□▽				○◇D□▽	
	090	○◇D□▽				○◇D□▽	
060	100	○◇D□▽	B/S			○◇D□▽	
110	110	●◇D□▽	Touchup			○◇D□▽	
120	120	○◇D□▽	Route - B/S			○◇D□▽	
120	130	●◇D□▽	B/S			○◇D□▽	
120	140	○◇D□▽	B/S			○◇D□▽	
		○◇D□▽				○◇D□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ◇ TRANSPORTATION D DELAY

FILED

SUBJECT Greenville Idg Spar FLOW PROCESS CHART Cleaning DATE 6/7/89

ITEM CODE WCD CTA072K WCD DATE 89122
PCW
NSN
P/M

08004A

CHART BEGINS 010

CHART ENDS 020 PREPARED BY Jim Fetor

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●▷▷□▽	Sonic Clean			○▷▷□▽	
020	020	○▷▷□▽	24 Hr Cool			○▷▷□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
▷ TRANSPORTATION ◻ DELAY

F15 246B

FLOW PROCESS CHART

SUBJECT Greenschaff IDG Spur DATE 6/7/59

ITEM CODE
 PCN
 MSN
 PM

WCD TAD72K WCD DATE 59086

08004A

CHART BEGINS 010

CHART ENDS 998

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○DD■▽	Insp VIS			○DD□▽	
015	015	○DD■▽	Insp VIS			○DD□▽	
020	020	○DD■▽	Insp DIM			○DD□▽	
030	030	○DD■▽	Insp DIM			○DD□▽	
035	035	○DD■▽	Insp MAG			○DD□▽	
040	040	○DD□▽	Ronte-BIS			○DD□▽	
	050	○DD□▽				○DD□▽	
	060	●DD□▽				○DD□▽	
	070	●DD□▽				○DD□▽	
	080	●DD□▽				○DD□▽	
	082	●DD□▽				○DD□▽	
	085	○DD■▽				○DD□▽	
	090	○DD□▽				○DD□▽	
	100	●DD□▽				○DD□▽	
	105	●DD□▽				○DD□▽	
	110	○DD□▽				○DD□▽	
	120	○DD□▽				○DD□▽	
	130	●DD□▽				○DD□▽	
	135	●DD□▽				○DD□▽	
	140	●DD□▽				○DD□▽	
▽	150	○DD■▽	▽			○DD□▽	
▽	160	○DD□▽				○DD□▽	
040	170	○DD□▽	B/s			○DD□▽	
180	180	●DD□▽	Grit Blast			○DD□▽	
190	190	●DD□▽	Clean			○DD□▽	
200	200	○DD□▽	Ronte-PSI			○DD□▽	
210	210	○DD■▽	Insp VIS			○DD□▽	
998	998	○DD□▽	Ronte Parts			○DD□▽	
		○DD□▽				○DD□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ◊ TRANSPORTATION D DELAY

F152HGE

FLOW PROCESS CHART CLEANING

SUBJECT Gear 2nd IAI Spray HSS DATE 6/7/89

ITEM CODE
 PCN
 NSN
 P/N

WCD CTH074 K WCD DATE 89 152

08004A

CHART BEGINS 010

CHART ENDS 020

PREPARED BY _____

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●○○□▽	Sonic Clean			○○○□▽	
020	020	○○○□▽	24 Hr Cool			○○○□▽	
		○○○□▽				○○○□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ▷ TRANSPORTATION D DELAY

LSC-20147

FIS LAGE

SUBJECT 6 per 2nd Idl Spac Assy FLOW PROCESS CHART Inspection DATE 6/7/89

ITEM CODE
 PCN
 NSN
 PN 08004A

WCD T40746 WCD DATE 89086

CHART BEGINS 010

CHART ENDS 998

PREPARED BY Jim Esten

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○◇D■▽	Insp VIS			○◇D□▽	
025	025	○◇D□▽	Conf. B/S			○◇D□▽	
	030	●◇D□▽	B/S			○◇D□▽	
	040	○◇D■▽				○◇D□▽	
	050	○◇D■▽				○◇D□▽	
	060	●◇D□▽				○◇D□▽	
	070	●◇D□▽				○◇D□▽	
	080	●◇D□▽				○◇D□▽	
	085	○◇D□▽				○◇D□▽	
	090	●◇D□▽				○◇D□▽	
	100	○◇D□▽				○◇D□▽	
025	110	○◇D□▽	B/S			○◇D□▽	
120	120	●◇D□▽	Degrease			○◇D□▽	
125	125	○◇D■▽	Insp Dim			○◇D□▽	
130	130	●◇D□▽	B/S			○◇D□▽	
	140	○◇D□▽				○◇D□▽	
	150	●◇D□▽				○◇D□▽	
	160	○◇D□▽				○◇D□▽	
130	165	○◇D□▽	B/S			○◇D□▽	
170	170	●◇D□▽	Demagnetize			○◇D□▽	
998	998	○◇D□▽	B/S			○◇D□▽	
		○◇D□▽				○◇D□▽	
		○◇D□▽				○◇D□▽	
		○◇D□▽				○◇D□▽	
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		○◇D□▽				○◇D□▽	
		○◇D□▽				○◇D□▽	
		○◇D□▽				○◇D□▽	
		○◇D□▽				○◇D□▽	
		○◇D□▽				○◇D□▽	
		○◇D□▽				○◇D□▽	

○ OPERATION ▽ STORAGE □ INSPECTION
 ◇ TRANSPORTATION D DELAY

LSC-20147

FIS LAGER

FLOW PROCESS CHART

SUBJECT LH AMAN Gearbox

DATE 2/7/89

ITEM CODE
PCN
NSN
P/N

WCD CTA 092A WCD DATE 89/52

08004A

CHART BEGINS 010

CHART ENDS 020

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	617	● ◊ ◊ ◊ ◊ ▽	Degrease			○ ◊ ◊ ◊ ◊ ▽	
020	020	○ ◊ ◊ ◊ ◊ ▽	24 Hr Cool			○ ◊ ◊ ◊ ◊ ▽	
		○ ◊ ◊ ◊ ◊ ▽				○ ◊ ◊ ◊ ◊ ▽	
		○ ◊ ◊ ◊ ◊ ▽				○ ◊ ◊ ◊ ◊ ▽	
		○ ◊ ◊ ◊ ◊ ▽				○ ◊ ◊ ◊ ◊ ▽	
		○ ◊ ◊ ◊ ◊ ▽				○ ◊ ◊ ◊ ◊ ▽	
		○ ◊ ◊ ◊ ◊ ▽				○ ◊ ◊ ◊ ◊ ▽	
		○ ◊ ◊ ◊ ◊ ▽				○ ◊ ◊ ◊ ◊ ▽	
		○ ◊ ◊ ◊ ◊ ▽				○ ◊ ◊ ◊ ◊ ▽	
		○ ◊ ◊ ◊ ◊ ▽				○ ◊ ◊ ◊ ◊ ▽	
		○ ◊ ◊ ◊ ◊ ▽				○ ◊ ◊ ◊ ◊ ▽	
		○ ◊ ◊ ◊ ◊ ▽				○ ◊ ◊ ◊ ◊ ▽	
		○ ◊ ◊ ◊ ◊ ▽				○ ◊ ◊ ◊ ◊ ▽	
		○ ◊ ◊ ◊ ◊ ▽				○ ◊ ◊ ◊ ◊ ▽	
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		○ ◊ ◊ ◊ ◊ ▽				○ ◊ ◊ ◊ ◊ ▽	
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		○ ◊ ◊ ◊ ◊ ▽				○ ◊ ◊ ◊ ◊ ▽	
		○ ◊ ◊ ◊ ◊ ▽				○ ◊ ◊ ◊ ◊ ▽	
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		○ ◊ ◊ ◊ ◊ ▽				○ ◊ ◊ ◊ ◊ ▽	
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		○ ◊ ◊ ◊ ◊ ▽				○ ◊ ◊ ◊ ◊ ▽	

○ OPERATION ▽ STORAGE ◻ INSPECTION
 ◊ TRANSPORTATION D DELAY

F15 LAGB

SUBJECT Lt AMAD Graybox FLOW PROCESS CHART Inspection DATE 6/7/89

ITEM CODE
PCN
NSN
PM

WCD TA092K WCD DATE B9039

08004C

CHART BEGINS 010

CHART ENDS 998

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○●D□▽	Insp VIS	050	340	●○D□▽	R/S
030	030	○●D□▽	Insp DIM		350	●○D□▽	
040	040	○●D□▽	Insp DIM		360	●○D□▽	
050	050	○●D□▽	Route - R/S		370	○●D□▽	
	060	○●D□▽			380	●○D□▽	
	070	●○D□▽			400	●○D□▽	
	080	●○D□▽			410	●○D□▽	
	090	●○D□▽			420	●○D□▽	
	100	●○D□▽			430	●○D□▽	
	110	●○D□▽			440	●○D□▽	
	120	●○D□▽		▽	450	○●D□▽	▽
	130	●○D□▽		050	460	○●D□▽	R/S
	140	●○D□▽		470	470	●○D□▽	Flush Clean
	150	●○D□▽		480	480	○●D□▽	R/S
	160	○●D□▽		490	490	○●D□▽	Insp VIS
	170	●○D□▽		500	500	○●D□▽	Route - R/S
	180	●○D□▽		500	510	●○D□▽	
	190	●○D□▽		500	998	○●D□▽	
	200	●○D□▽				○●D□▽	
	210	●○D□▽				○●D□▽	
	220	●○D□▽				○●D□▽	
	230	●○D□▽				○●D□▽	
	240	●○D□▽				○●D□▽	
	240	●○D□▽				○●D□▽	
	270	●○D□▽				○●D□▽	
	280	●○D□▽				○●D□▽	
	290	●○D□▽				○●D□▽	
	300	●○D□▽				○●D□▽	
	310	●○D□▽				○●D□▽	
	315	●○D□▽				○●D□▽	
	320	●○D□▽				○●D□▽	
050	330	●○D□▽	R/S			○●D□▽	

○ OPERATION

▷ TRANSPORTATION

▽ STORAGE

D DELAY

□ INSPECTION

LSC-20147

General

SUBJECT FILE - AMAL FLOW PROCESS CHART DATE 2/7/89

ITEM CODE
PCN
NSN
P/N

WCD G12C WCD DATE 89152

08004A

CHART BEGINS 010

CHART ENDS 040

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●▷▷▷□▽	Decrease			○▷▷▷□▽	
020	020	●▷▷▷□▽	Sonic Clean			○▷▷▷□▽	
030	030	●▷▷▷□▽	Flush-Rinse			○▷▷▷□▽	
040	040	○▷▷▷□▽	24 Hr Cool			○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
▷ TRANSPORTATION D DELAY

LSC-20147

FIS 2-GE GENERAL

SUBJECT FIS 2H AHAD FLOW PROCESS CHART Inspection DATE 6/7/59

ITEM CODE
 PCN 080044
 NSN
 PN

WCD G 12 I WCD DATE 89152

CHART BEGINS 010

CHART ENDS 160

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○●D■▽	Insp VIS			○●D□▽	
020	020	○●D■▽	Insp DIM			○●D□▽	
030	030	○●D■▽	Insp DIM			○●D□▽	
040	040	○●D■▽	Insp FPI			○●D□▽	
050	050	○●D■▽	Insp MAG			○●D□▽	
060	060	●○D□▽	Repair			○●D□▽	
070	070	○●D□▽	Route - Parts			○●D□▽	
080	080	○●D□▽	Route - BIS			○●D□▽	
090	090	●○D□▽	Corrosion			○●D□▽	
100	100	●○D□▽	Decrease			○●D□▽	
110	110	●○D□▽	Grit Blast			○●D□▽	
120	120	●○D□▽	Wash			○●D□▽	
130	130	○●D■▽	Insp DIM			○●D□▽	
140	140	○●D■▽	Insp DIM			○●D□▽	
150	150	●○D□▽	Deburr			○●D□▽	
160	160	○●D□▽	Route - Parts			○●D□▽	
		○●D□▽				○●D□▽	
		○●D□▽				○●D□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ▷ TRANSPORTATION D DELAY

F 15 R T 32

FLOW PROCESS CHART

SUBJECT Flange General Maintenance DATE 1/2/54

ITEM CODE
PCK
NSN
P/N
WCD CTA071K WCD DATE 89152
080054

CHART BEGINS 010

CHART ENDS 020

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	● ◁ ▣ ▽	Some C/ten			◁ ▣ ▽	
020	020	◁ ▣ ▽	24 Hr Cool			◁ ▣ ▽	
		◁ ▣ ▽				◁ ▣ ▽	
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- OPERATION
- ▷ TRANSPORTATION
- ▽ STORAGE
- D DELAY
- ◻ INSPECTION

F15 R-2E

FLOW PROCESS CHART *Inspect in*

SUBJECT Flange General Mounting DATE 2/2/59

ITEM CODE
PCM
NSN
PM
WCD TA071K WCD DATE 89107
06005A

CHART BEGINS OP 005
CHART ENDS 140 120 PREPARED BY Jin Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
005	005	○▷▷□▽	Insp VIS			○▷▷□▽	
010	010	○▷▷□▽	Insp VIS			○▷▷□▽	
020	020	○▷▷□▽	Insp DIM			○▷▷□▽	
030	030	○▷▷□▽	Insp VIS			○▷▷□▽	
040	040	●▷▷□▽	Strip Paint			○▷▷□▽	
050	050	○▷▷□▽	Insp FPI			○▷▷□▽	
060	060	○▷▷□▽	Route 3/S			○▷▷□▽	
	070	○▷▷□▽				○▷▷□▽	
	072	●▷▷□▽				○▷▷□▽	
	074	●▷▷□▽				○▷▷□▽	
	075	●▷▷□▽				○▷▷□▽	
	076	●▷▷□▽				○▷▷□▽	
	077	●▷▷□▽				○▷▷□▽	
	078	●▷▷□▽				○▷▷□▽	
	080	●▷▷□▽				○▷▷□▽	
	090	○▷▷□▽				○▷▷□▽	
060	100	○▷▷□▽	3/S			○▷▷□▽	
110	110	●▷▷□▽	Touchup			○▷▷□▽	
120	120	○▷▷□▽	Route - 3/S			○▷▷□▽	
120	130	●▷▷□▽	3/S			○▷▷□▽	
120	140	○▷▷□▽	3/S			○▷▷□▽	
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- OPERATION
- ▷ TRANSPORTATION
- ▽ STORAGE
- INSPECTION
- ◇ DELAY

SUBJECT Gearshift, Ida Spur FLOW PROCESS CHART CLEANING DATE 6/6/39

ITEM CODE
PCN
NSM
P/M

WCD GTA072K WCD DATE 89152
 08005H

CHART BEGINS 010
CHART ENDS 020 PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	\circ \diamond \square ∇	Sonic Clean			\circ \diamond \square ∇	
020	020	\circ \diamond \square ∇	24 Hr Cool			\circ \diamond \square ∇	
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\circ OPERATION ∇ STORAGE \square INSPECTION
 \diamond TRANSPORTATION D DELAY

F15 R-22

SUBJECT Geometric IDG FLOW PROCESS CHART Inspection DATE 6/16/06

ITEM CODE PCN NSN P/N WCD T-072K WCD DATE 5-9-06

CHART BEGINS 315 CHART ENDS 698 PREPARED BY J.W. Fenton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
310	010	○▷▷▷▽	Insp 115			○▷▷▷▽	
015	015	○▷▷▷▽	Insp Vis			○▷▷▷▽	
020	020	○▷▷▷▽	Insp DIM			○▷▷▷▽	
030	030	○▷▷▷▽	Insp DIM			○▷▷▷▽	
035	035	○▷▷▷▽	Insp DIM			○▷▷▷▽	
040	040	○▷▷▷▽	Rout 715			○▷▷▷▽	
	050	○▷▷▷▽				○▷▷▷▽	
	060	●▷▷▷▽				○▷▷▷▽	
	070	●▷▷▷▽				○▷▷▷▽	
	080	●▷▷▷▽				○▷▷▷▽	
	082	●▷▷▷▽				○▷▷▷▽	
	085	○▷▷▷▽				○▷▷▷▽	
	090	○▷▷▷▽				○▷▷▷▽	
	100	●▷▷▷▽				○▷▷▷▽	
		●▷▷▷▽				○▷▷▷▽	
	110	○▷▷▷▽				○▷▷▷▽	
	120	○▷▷▷▽				○▷▷▷▽	
	130	●▷▷▷▽				○▷▷▷▽	
	135	●▷▷▷▽				○▷▷▷▽	
	140	●▷▷▷▽				○▷▷▷▽	
Y	150	○▷▷▷▽				○▷▷▷▽	
Y	170	○▷▷▷▽				○▷▷▷▽	
340	170	○▷▷▷▽	BIS			○▷▷▷▽	
180	180	●▷▷▷▽	Grif Plast			○▷▷▷▽	
190	190	●▷▷▷▽	Clear			○▷▷▷▽	
200	200	○▷▷▷▽	Rout 255			○▷▷▷▽	
210	210	○▷▷▷▽	Insp 110			○▷▷▷▽	
495	495	○▷▷▷▽	Rout 200			○▷▷▷▽	
		○▷▷▷▽				○▷▷▷▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
▷ TRANSPORTATION ◻ DELAY

SUBJECT Gear 1st. Ins. **FLOW PROCESS CHART** DATE 8/13/58

ITEM CODE
 PCN
 NSN
 PN

WCD CTA074 WCD DATE 8/13/58

160057

CHART BEGINS 010

CHART ENDS 020 PREPARED BY _____

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○▷▷□▽	Jobin Clean			○▷▷□▽	
020	020	○▷▷□▽	24 hr Cool			○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ▷ TRANSPORTATION ◯ DELAY

F15 1156E

SUBJECT Gen. 2nd Lt. Bill Foy **FLOW PROCESS CHART Inspection** DATE 6/10/84

ITEM CODE
 PCN
 NSN
 P/N

WCD T-0741 WCD DATE 090-1

0-0005A

CHART BEGINS 010

CHART ENDS 998

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	O DD D ▽	Insp YIS			O DD D ▽	
025	025	O DD D ▽	Route - YIS			O DD D ▽	
	030	● DD D ▽	BIS			O DD D ▽	
	040	O DD D ▽				O DD D ▽	
	050	O DD D ▽				O DD D ▽	
	060	● DD D ▽				O DD D ▽	
	070	● DD D ▽				O DD D ▽	
	080	● DD D ▽				O DD D ▽	
	085	O DD D ▽				O DD D ▽	
	090	● DD D ▽				O DD D ▽	
▽	100	O DD D ▽	▽			O DD D ▽	
025	110	O DD D ▽	BIS			O DD D ▽	
120	120	● DD D ▽	Decrease			O DD D ▽	
125	125	O DD D ▽	Insp Dim			O DD D ▽	
130	130	● DD D ▽	BIS			O DD D ▽	
	140	O DD D ▽				O DD D ▽	
	150	● DD D ▽				O DD D ▽	
▽	160	O DD D ▽	▽			O DD D ▽	
130	165	O DD D ▽	BIS			O DD D ▽	
170	170	● DD D ▽	Demonstrative			O DD D ▽	
998	998	O DD D ▽	BIS			O DD D ▽	
		O DD D ▽				O DD D ▽	
		O DD D ▽				O DD D ▽	
		O DD D ▽				O DD D ▽	
		O DD D ▽				O DD D ▽	
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		O DD D ▽				O DD D ▽	
		O DD D ▽				O DD D ▽	

OPERATION ▽ STORAGE INSPECTION
 TRANSPORTATION D DELAY

1-10-52

FLOW PROCESS CHART *Inspection*

SUBJECT TR 092 PC DATE 2/10/52

ITEM CODE
PCN
NSN
PM

WCD TR 092 PC WCD DATE 3/9/52

09005H

CHART BEGINS 010

CHART ENDS 998 PREPARED BY Jim Fenton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○◇◇□▽	Insp Vis	050	050	●◇◇□▽	B/S
030	030	○◇◇□▽	Insp DIM		350	●◇◇□▽	
040	040	○◇◇□▽	Insp DIM		360	●◇◇□▽	
050	050	○◇◇□▽	Route - B/S		370	○◇◇□▽	
	060	○◇◇□▽			380	●◇◇□▽	
	070	●◇◇□▽			400	●◇◇□▽	
	080	●◇◇□▽			410	●◇◇□▽	
	090	●◇◇□▽			420	●◇◇□▽	
	100	●◇◇□▽			430	●◇◇□▽	
	110	●◇◇□▽			440	●◇◇□▽	
	120	●◇◇□▽		▽	450	○◇◇□▽	▽
	130	●◇◇□▽		050	460	○◇◇□▽	B/S
	140	●◇◇□▽		470	470	●◇◇□▽	Flush Clean
	150	●◇◇□▽		480	480	○◇◇□▽	B/S
	160	○◇◇□▽		490	490	○◇◇□▽	Insp Vis
	170	●◇◇□▽		500	500	○◇◇□▽	Route - B/S
	180	●◇◇□▽		500	510	●◇◇□▽	
	190	●◇◇□▽		500	998	○◇◇□▽	
	200	●◇◇□▽				○◇◇□▽	
	210	●◇◇□▽				○◇◇□▽	
	220	●◇◇□▽				○◇◇□▽	
	230	●◇◇□▽				○◇◇□▽	
	240	●◇◇□▽				○◇◇□▽	
	250	●◇◇□▽				○◇◇□▽	
	260	●◇◇□▽				○◇◇□▽	
	270	●◇◇□▽				○◇◇□▽	
	280	●◇◇□▽				○◇◇□▽	
	290	●◇◇□▽				○◇◇□▽	
	300	●◇◇□▽				○◇◇□▽	
	310	●◇◇□▽				○◇◇□▽	
	320	●◇◇□▽				○◇◇□▽	
▽	320	●◇◇□▽	▽			○◇◇□▽	
050	330	●◇◇□▽	B/S			○◇◇□▽	

○ OPERATION ▽ STORAGE □ INSPECTION
◇ TRANSPORTATION D DELAY

GENERIC

SUBJECT FLINTSTONE FLOW PROCESS CHART DISC DATE 8/1/57

ITEM CODE PCN
 NSN
 P/N

WCD 610 WCD DATE 89152

060057

CHART BEGINS 010

CHART ENDS 040 PREPARED BY JIN ESTON

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●⇨⇨□▽	Deposit			○⇨⇨□▽	
020	020	●⇨⇨□▽	Scr - Clean			○⇨⇨□▽	
030	030	●⇨⇨□▽	Flush - 7 mins			○⇨⇨□▽	
040	040	○⇨⇨□▽	24 hr test			○⇨⇨□▽	
		○⇨⇨□▽				○⇨⇨□▽	
		○⇨⇨□▽				○⇨⇨□▽	
		○⇨⇨□▽				○⇨⇨□▽	
		○⇨⇨□▽				○⇨⇨□▽	
		○⇨⇨□▽				○⇨⇨□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ⇨ TRANSPORTATION D DELAY

FLOW PROCESS CHART

SUBJECT F15 DATE

ITEM CODE
PCN
NSN
PN

WCD GII WCD DATE 7/9/52

080054

CHART BEGINS 010

CHART ENDS 160 PREPARED BY T. F. Brown

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○▷▷▷▽	Insp 1/5			○▷▷▷▽	
020	020	○▷▷▷▽	Insp 2/5			○▷▷▷▽	
030	030	○▷▷▷▽	Insp 3/5			○▷▷▷▽	
040	040	○▷▷▷▽	Insp 4/5			○▷▷▷▽	
050	050	○▷▷▷▽	Insp 5/5			○▷▷▷▽	
060	060	●▷▷▷□▽	Repair			○▷▷▷□▽	
070	070	○▷▷▷□▽	Route-Parts			○▷▷▷□▽	
080	080	○▷▷▷□▽	Route-2/5			○▷▷▷□▽	
090	090	●▷▷▷□▽	Corrosion			○▷▷▷□▽	
100	100	●▷▷▷□▽	Decrease			○▷▷▷□▽	
110	110	●▷▷▷□▽	Grif Blast			○▷▷▷□▽	
120	120	●▷▷▷□▽	Water Rinse			○▷▷▷□▽	
130	130	○▷▷▷□▽	Insp DIM			○▷▷▷□▽	
140	140	○▷▷▷□▽	Insp DIM			○▷▷▷□▽	
150	150	●▷▷▷□▽	Deburr			○▷▷▷□▽	
160	160	○▷▷▷□▽	Route-Parts			○▷▷▷□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
▷ TRANSPORTATION D DELAY

SUBJECT Coment Change FLOW PROCESS CHART 1-5-52 DATE 1-5-52

ITEM CODE
 PCM
 NSN
 P.N.

WCD CT4032 WCD DATE 9/1/52
080061

CHART BEGINS 010

CHART ENDS 030 PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○ ○ ○ □ ▽	Hot Water Rinse			○ ○ ○ □ ▽	
020	020	○ ○ ○ □ ▽	Grit Blast			○ ○ ○ □ ▽	
030	030	○ ○ ○ □ ▽	24 Hr. Cool			○ ○ ○ □ ▽	
		○ ○ ○ □ ▽				○ ○ ○ □ ▽	
		○ ○ ○ □ ▽				○ ○ ○ □ ▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ◊ TRANSPORTATION D DELAY

FLOW PROCESS CHART

SUBJECT AN Constant Chamber DATE 7.1.59

ITEM CODE
PCN
NSN
PN

WCD 740334 WCD DATE 89075

080044

CHART BEGINS 015

CHART ENDS 120

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
015	015	○◇D■▽	Insp FPI			○◇D□▽	
020	020	○◇D■▽	Insp VIS			○◇D□▽	
030	030	○◇D■▽	Insp VIS			○◇D□▽	
040	040	●◇D□▽	Log Repairs			○◇D□▽	
050	050	○◇D■▽	Insp VIS			○◇D□▽	
055	055	●◇D□▽	Post Status			○◇D□▽	
060	060	○◇D□▽	Route - P/S			○◇D□▽	
	062	○◇D□▽				○◇D□▽	
	065	○◇D□▽				○◇D□▽	
	070	○◇D□▽				○◇D□▽	
	075	○◇D□▽				○◇D□▽	
	081	○◇D□▽				○◇D□▽	
	082	○◇D□▽				○◇D□▽	
	083	○◇D□▽				○◇D□▽	
	084	○◇D□▽				○◇D□▽	
	085	○◇D□▽				○◇D□▽	
	086	○◇D□▽				○◇D□▽	
060	088	○◇D□▽	EIS			○◇D□▽	
090	090	○◇D■▽	Insp FPI			○◇D□▽	
091	091	○◇D□▽	E/S			○◇D□▽	
092	092	○◇D□▽	E/S			○◇D□▽	
093	093	○◇D■▽	Insp FPI			○◇D□▽	
095	095	○◇D□▽	Route - E/S			○◇D□▽	
	100	○◇D□▽				○◇D□▽	
	110	○◇D□▽				○◇D□▽	
095	120	○◇D□▽	E/S			○◇D□▽	
		○◇D□▽				○◇D□▽	
		○◇D□▽				○◇D□▽	
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		○◇D□▽				○◇D□▽	

○ OPERATION ▽ STORAGE □ INSPECTION
◇ TRANSPORTATION D DELAY

SUBJECT Inlet Gr Box Flow Process Chart

DATE 5/31/59

ITEM CODE
PCN
NSN
P/N

WCD TH056H WCD DATE 39095

08006H

CHART BEGINS 020

CHART ENDS 090

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
—	—	○▷▷□▽	—			○▷▷□▽	
020	020	○▷▷■▽	Insp Vis			○▷▷□▽	
025	025	○▷▷■▽	Insp Vis			○▷▷□▽	
026	026	●▷▷□▽	Repair			○▷▷□▽	
028	028	○▷▷■▽	Insp Vis			○▷▷□▽	
030	030	○▷▷■▽	Insp Vis			○▷▷□▽	
035	035	○▷▷■▽	Insp Vis			○▷▷□▽	
040	040	○▷▷■▽	Insp Vis			○▷▷□▽	
041	041	○▷▷■▽	Insp Vis			○▷▷□▽	
045	045	○▷▷■▽	Insp Dim			○▷▷□▽	
046	046	○▷▷■▽	Insp Vis			○▷▷□▽	
047	047	●▷▷□▽	Strip Paint			○▷▷□▽	
048	048	○▷▷■▽	Insp Vis			○▷▷□▽	
050	050	○▷▷□▽	Route - R/S			○▷▷□▽	
065	065	○▷▷□▽				○▷▷□▽	
	067	○▷▷□▽				○▷▷□▽	
	068	○▷▷□▽				○▷▷□▽	
	070	○▷▷□▽				○▷▷□▽	
	071	○▷▷□▽				○▷▷□▽	
	075	○▷▷□▽				○▷▷□▽	
	077	○▷▷□▽				○▷▷□▽	
	080	○▷▷□▽				○▷▷□▽	
	085	○▷▷□▽	▽			○▷▷□▽	
065	090	○▷▷□▽	B/S			○▷▷□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
▷ TRANSPORTATION ◻ DELAY

SUBJECT Process Table FLOW PROCESS CHART 1470116 DATE 7-1-66

ITEM CODE
PCN
NSN
PN

WCD 15-077- WCD DATE 7-1-66
50027

CHART BEGINS C10
CHART ENDS C50 PREPARED BY Jim E. Tol

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	⊙ ⊙ ⊙ □ ▽	Wash			⊙ ⊙ ⊙ □ ▽	
020	020	⊙ ⊙ ⊙ □ ▽	Buff			⊙ ⊙ ⊙ □ ▽	
530	030	⊙ ⊙ ⊙ □ ▽	24 Hr. Cool			⊙ ⊙ ⊙ □ ▽	
		⊙ ⊙ ⊙ □ ▽				⊙ ⊙ ⊙ □ ▽	
		⊙ ⊙ ⊙ □ ▽				⊙ ⊙ ⊙ □ ▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ▷ TRANSPORTATION ◐ DELAY
 LSC-20147

FLOW PROCESS CHART

SUBJECT _____

DATE _____

ITEM CODE

- PCN
- NSN
- P-N

WCD _____

WCD DATE _____

CHART BEGINS _____

001

CHART ENDS _____

200

PREPARED BY Jim Estelle

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
001	001	●○○□▽	Record	075	110	○○○□▽	B/S
002	002	○○○■▽	Insp. Vis	075	117	○○○□▽	B/S
003	003	○○○□▽	Route - B/S	130	130	●○○□▽	Press Flush
	004	○○○□▽		160	160	○○○■▽	Insp. FPI
	005	○○○□▽		170	170	○○○□▽	Route - B/S
	006	○○○□▽		↓	180	○○○□▽	B/S
	007	○○○□▽		170	200	○○○□▽	Route - Parts
	008	○○○□▽				○○○□▽	
	009	○○○□▽				○○○□▽	
	014	○○○□▽				○○○□▽	
	016	○○○□▽				○○○□▽	
	018	○○○□▽	↓			○○○□▽	
003	019	○○○□▽	B/S			○○○□▽	
020	020	○○○■▽	Insp. Vis			○○○□▽	
022	022	●○○□▽	Gr. Blast			○○○□▽	
024	024	●○○□▽	Gr. Blast			○○○□▽	
026	026	○○○■▽	Insp. FPI			○○○□▽	
045	045	○○○■▽	Insp. Vis			○○○□▽	
050	050	●○○□▽	Record			○○○□▽	
055	055	○○○■▽	Insp. Div			○○○□▽	
070	070	○○○□▽	Route			○○○□▽	
075	075	○○○□▽	B/S			○○○□▽	
	076	○○○□▽				○○○□▽	
	078	○○○□▽				○○○□▽	
	080	○○○□▽				○○○□▽	
	085	○○○□▽				○○○□▽	
	090	○○○□▽				○○○□▽	
	095	○○○□▽				○○○□▽	
	100	○○○□▽				○○○□▽	
	102	○○○□▽				○○○□▽	
	105	○○○□▽	↓			○○○□▽	
	107	○○○□▽	B/S			○○○□▽	

○ OPERATION

▽ STORAGE

□ INSPECTION

◇ TRANSPORTATION

▷ DELAY

LSC-20:47

F-15 (F-15C) 25000

FLOW PROCESS CHART

SUBJECT Engine Test DATE 5/12/59

ITEM CODE WCD 080801 WCD DATE 7/12
 PCN 080067
 NSN
 PN

CHART BEGINS 010

CHART ENDS 030

PREPARED BY J. M. Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○◊◊□▽	Wash			○◊◊□▽	
020	020	●◊◊□▽	Ruff			○◊◊□▽	
030	030	○◊◊□▽	24 Hr Cool			○◊◊□▽	
		○◊◊□▽				○◊◊□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ◊ TRANSPORTATION D DELAY

SUBJECT Power Turbine Trq Hsg Assy FLOW PROCESS CHART DATE May 31, 1985

ITEM CODE
PCN
NSN
P/N

WCD TA0884 WCD DATE 88350

08006A

CHART BEGINS 010

CHART ENDS 640

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●◊◊◻▽	Info	155	231	○◊◊◻▽	B/S
015	015	●◊◊◻▽	Degrease	235	235	●◊◊◻▽	Vapor Degrease
017	017	○◊◊◻▽	Insp Vis	240	240	●◊◊◻▽	Grit Blast
018	018	●◊◊◻▽	Grit Blast	245	245	○◊◊◻▽	Route - B/S
020	020	○◊◊◻▽	Route - B/S		250	●◊◊◻▽	
	040	●◊◊◻▽			251	○◊◊◻▽	
	050	○◊◊◻▽			260	○◊◊◻▽	
020	055	○◊◊◻▽	B/S		261	○◊◊◻▽	
060	060	○◊◊◻▽	Insp Vis		270	●◊◊◻▽	
062	062	○◊◊◻▽	Insp Vis		280	●◊◊◻▽	
070	070	○◊◊◻▽	Insp FPI		290	○◊◊◻▽	
080	080	○◊◊◻▽	Insp Dim		295	●◊◊◻▽	
090	090	○◊◊◻▽	Route - B/S		300	○◊◊◻▽	
	100	○◊◊◻▽	Route - B/S		310	●◊◊◻▽	
	110	○◊◊◻▽			320	●◊◊◻▽	
	120	○◊◊◻▽			450	●◊◊◻▽	
090	130	○◊◊◻▽	B/S		451	○◊◊◻▽	
140	140	○◊◊◻▽	Route		452	●◊◊◻▽	
150	150	○◊◊◻▽	Insp Vis		453	●◊◊◻▽	
155	155	○◊◊◻▽	Route - B/S		454	○◊◊◻▽	
	156	○◊◊◻▽	Route - B/S		455	○◊◊◻▽	
	157	●◊◊◻▽		245	456	○◊◊◻▽	
	158	○◊◊◻▽		457	457	●◊◊◻▽	Press Flush
	159	○◊◊◻▽		458	458	○◊◊◻▽	Route B/S
	160	●◊◊◻▽			459	●◊◊◻▽	
	163	●◊◊◻▽			460	●◊◊◻▽	
	165	●◊◊◻▽			490	●◊◊◻▽	
	167	○◊◊◻▽			500	●◊◊◻▽	
	170	●◊◊◻▽			580	●◊◊◻▽	
	180	●◊◊◻▽			590	○◊◊◻▽	
	190	●◊◊◻▽			592	○◊◊◻▽	
155	230	○◊◊◻▽	R/S		597	●◊◊◻▽	B/S

○ OPERATION ▽ STORAGE ◻ INSPECTION
◊ TRANSPORTATION ◐ DELAY

FLOW PROCESS CHART
 SUBJECT Power Turbine Bearing Housing Assy DATE 5-31-89

ITEM CODE
 PCN
 NSN
 P/N

WCD TA088H WCD DATE 88350

08006

CHART BEGINS 010

CHART ENDS 640

PREPARED BY

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
458	598	●D□▽	B/S			○D□▽	
	599	○D□▽				○D□▽	
	600	○D■▽				○D□▽	
	610	○D□▽				○D□▽	
458	620	○D□▽	B/S			○D□▽	
625	625	○D■▽	Insp FPI			○D□▽	
630	630	●D□▽	Pregr Flush			○D□▽	
635	635	○D■▽	Insp Vis			○D□▽	
640	640	○D□▽	Route - Parts			○D□▽	
		○D□▽				○D□▽	
		○D□▽				○D□▽	
		○D□▽				○D□▽	
		○D□▽				○D□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ◻ TRANSPORTATION ◻ DELAY

FLOW PROCESS CHART

SUBJECT Styeric FIS JPS Cleaning

DATE 5/31/89

ITEM CODE
PCN
NSN
P/N

WCD

G2C

WCD DATE

89152

08006A

CHART BEGINS

010

CHART ENDS

060

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●○○□▽	Rinse-Dry			○○○□▽	
020	020	●○○□▽	Paint Strip			○○○□▽	
030	030	●○○□▽	Degrease			○○○□▽	
040	040	●○○□▽	Buff			○○○□▽	
050	050	●○○□▽	Grit Blast			○○○□▽	
060	060	○○●□▽	24 Hr Cool			○○○□▽	
		○○○□▽				○○○□▽	
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OPERATION STORAGE
 TRANSPORTATION DELAY
 INSPECTION

GENERAL

SUBJECT F15 JFS

FLOW PROCESS CHART Inspection

DATE 5/31/89

ITEM CODE
 PCN
 NSN
 P/N

WCD G2I

WCD DATE 89152

08006A

CHART BEGINS 010

CHART ENDS 120

PREPARED BY _____

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○◊◊◻▽	Insp VIS			○◊◊◻▽	
020	020	○◊◊◻▽	Insp FPI			○◊◊◻▽	
030	030	○◊◊◻▽	Insp DIM			○◊◊◻▽	
040	040	○◊◊◻▽	Insp DIM			○◊◊◻▽	
050	050	○◊◊◻▽	Route - Parts			○◊◊◻▽	
060	060	○◊◊◻▽	Route - P/S			○◊◊◻▽	
070	070	○◊◊◻▽	Insp - VIS			○◊◊◻▽	
080	080	●◊◊◻▽	Grit Blast			○◊◊◻▽	
090	090	○◊◊◻▽	Insp FPI			○◊◊◻▽	
100	100	○◊◊◻▽	Insp DIM			○◊◊◻▽	
110	110	○◊◊◻▽	Route - Parts			○◊◊◻▽	
120	120	○◊◊◻▽	Route - P/S			○◊◊◻▽	
		○◊◊◻▽				○◊◊◻▽	
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○ OPERATION ▽ STORAGE ◻ INSPECTION
 ◊ TRANSPORTATION D DELAY

F 15 C 6 B

SUBJECT Fan Oil Cooler Inlet Housing FLOW PROCESS CHART Inspection DATE 1/5/39

ITEM CODE PCN NSN P/N

WCD TA 004 R WCD DATE 38181

08007A

CHART BEGINS 010

CHART ENDS 050

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○ ⊙ ▽	Insp VIS			○ ⊙ ▽	
015	-	○ ⊙ ▽	Route - Paste			○ ⊙ ▽	
016	-	○ ⊙ ▽	Route - B/S			○ ⊙ ▽	
	020	● ⊙ ▽	↓			○ ⊙ ▽	
	025	● ⊙ ▽	↓			○ ⊙ ▽	
	030	○ ⊙ ▽	↓			○ ⊙ ▽	
	035	● ⊙ ▽	↓			○ ⊙ ▽	
	040	○ ⊙ ▽	↓			○ ⊙ ▽	
	045	● ⊙ ▽	↓			○ ⊙ ▽	
016	050	○ ⊙ ▽	B/S			○ ⊙ ▽	
		○ ⊙ ▽				○ ⊙ ▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ⊙ TRANSPORTATION D DELAY

F 15 U G K

FLOW PROCESS CHART CLEARING

SUBJECT Spar Box Matched Lt Housing

DATE 3/5/89

ITEM CODE
 PCN
 NSM
 P/N

WCD CTA046R WCD DATE 89152

08007A

CHART BEGINS 010

CHART ENDS 020

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●▷▷▷□▽	Flush & Dry			○▷▷▷□▽	
020	020	○▷▷▷□▽	24 Hr Cool			○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ▷ TRANSPORTATION D DELAY

F15 CGI

FLOW PROCESS CHART Inspection

SUBJECT Gear Box Matched Jet Housing DATE 6/5/89

ITEM CODE
PCN
NSN
P/N

WCD TAD4GR WCD DATE 89082

08007A

CHART BEGINS 010

CHART ENDS 070

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○ D D <input checked="" type="checkbox"/> ▽	Insp VIS			○ D D <input type="checkbox"/> ▽	
015	015	○ D D <input checked="" type="checkbox"/> ▽	Insp FPI			○ D D <input type="checkbox"/> ▽	
017	017	○ D <input checked="" type="checkbox"/> ▽	Route R/S			○ D <input type="checkbox"/> ▽	
	018	● D D <input type="checkbox"/> ▽				○ D D <input type="checkbox"/> ▽	
	020	○ D <input checked="" type="checkbox"/> ▽				○ D D <input type="checkbox"/> ▽	
	035	● D D <input type="checkbox"/> ▽				○ D D <input type="checkbox"/> ▽	
	040	● D D <input type="checkbox"/> ▽				○ D D <input type="checkbox"/> ▽	
▽	041	● D D <input type="checkbox"/> ▽	▽			○ D D <input type="checkbox"/> ▽	
017	050	○ D <input checked="" type="checkbox"/> ▽	R/S			○ D D <input type="checkbox"/> ▽	
051	051	● D D <input type="checkbox"/> ▽	Flush Clean			○ D D <input type="checkbox"/> ▽	
052	052	○ D D <input checked="" type="checkbox"/> ▽	Insp VIS			○ D D <input type="checkbox"/> ▽	
053	053	● D D <input type="checkbox"/> ▽	Route to Parts			○ D D <input type="checkbox"/> ▽	
053	055	● D D <input type="checkbox"/> ▽	R/S			○ D D <input type="checkbox"/> ▽	
053	070	● D D <input type="checkbox"/> ▽	R/S			○ D D <input type="checkbox"/> ▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ▷ TRANSPORTATION D DELAY

F K C G R

SUBJECT Driven Bevel Gear FLOW PROCESS CHART CLEAVING DATE 6/5/89

ITEM CODE
PCN
NSH
P/N

WCD CTA092B WCD DATE 8915Z

08007A

CHART BEGINS 010

CHART ENDS 020

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●◇◇□▽	<i>Sonic Clean</i>			○◇◇□▽	
020	020	○◇◇□▽	<i>24 Hr Cool</i>			○◇◇□▽	
		○◇◇□▽				○◇◇□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
◇ TRANSPORTATION D DELAY

F75 C6B

SUBJECT Driven Bevel Gear FLOW PROCESS CHART Inspection DATE 6/5/89

ITEM CODE
PCN
NSN
PIN

WCD TA092K WCD DATE 89005

08007H

CHART BEGINS 005

CHART ENDS 998

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
005	005	●○○□▽	Info			○○○□▽	
010	010	○○○■▽	Insp VIS			○○○□▽	
020	020	○○○■▽	Insp DIM			○○○□▽	
025	025	○○○■▽	Insp FPI			○○○□▽	
026	-	○○○□▽	Route - Parts			○○○□▽	
030	030	○○○□▽	Route - B/S			○○○□▽	
	040	●○○□▽				○○○□▽	
	042	○○○□▽				○○○□▽	
	044	○○○■▽				○○○□▽	
	046	○○○□▽				○○○□▽	
	048	●○○□▽				○○○□▽	
	050	○○○□▽				○○○□▽	
	060	●○○□▽				○○○□▽	
	070	○○○□▽				○○○□▽	
	075	○○○□▽				○○○□▽	
	080	●○○□▽				○○○□▽	
	085	○○○□▽				○○○□▽	
	090	○○○■▽				○○○□▽	
▼	095	○○○□▽	▼			○○○□▽	
030	998	○○○□▽	B/S			○○○□▽	
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○ OPERATION ▼ STORAGE □ INSPECTION
◇ TRANSPORTATION D DELAY

FLOW PROCESS CHART

SUBJECT Decoupler Assy Piston DATE 1/13/59

ITEM CODE PCN NSN P/N
 WCD CTA098R WCD DATE 39152
08007A

CHART BEGINS 010

CHART ENDS 020 PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●◇◇□▽	Sonic Clean			○◇◇□▽	
020	020	○◇◇□▽	24 Hr Cool			○◇◇□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ◇ TRANSPORTATION D DELAY

FILE 668

FLOW PROCESS CHART

SUBJECT Decoupler Assy Piston

DATE 2/6/84

ITEM CODE
PCN
NSN
PM

08007H

WCD T#1298R

WCD DATE 59082

CHART BEGINS 005

CHART ENDS _____ PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
	005	○▷▷▷□▽	Insp VIS			○▷▷▷□▽	
	010	○▷▷▷□▽	Insp DIM			○▷▷▷□▽	
	011	●▷▷▷□▽	Repair			○▷▷▷□▽	
	012	●▷▷▷□▽	Package			○▷▷▷□▽	
	015	○▷▷▷□▽	Insp MAG			○▷▷▷□▽	
	018	●▷▷▷□▽	Package			○▷▷▷□▽	
	020	○▷▷▷□▽	Route - R/S			○▷▷▷□▽	
	040	●▷▷▷□▽				○▷▷▷□▽	
	045	●▷▷▷□▽				○▷▷▷□▽	
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OPERATION STORAGE INSPECTION
 TRANSPORTATION DELAY

FLOW PROCESS CHART CLEANING

SUBJECT F15 CGB GENERIC DATE 6/2/89

ITEM CODE
 PCN
 NSN
 P/N

WCD G3C WCD DATE 89152

08007A

CHART BEGINS 010

CHART ENDS 040

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	● ◊ ◊ ◊ ◊ ▽	Decrease			○ ◊ ◊ ◊ ◊ ▽	
020	020	● ◊ ◊ ◊ ◊ ▽	Sonic Clean			○ ◊ ◊ ◊ ◊ ▽	
030	030	● ◊ ◊ ◊ ◊ ▽	Scrape & Spray			○ ◊ ◊ ◊ ◊ ▽	
040	040	○ ◊ ◊ ◊ ◊ ▽	24 Hr Cool			○ ◊ ◊ ◊ ◊ ▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ◊ TRANSPORTATION ◊ DELAY

SUBJECT F15 CGR GENOYIC FLOW PROCESS CHART Inspection DATE 6/5/89

ITEM CODE
 PCN
 NSN
 P/N

WCD G3I WCD DATE 89152

08007A

CHART BEGINS 010

CHART ENDS 090

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○◇D■▽	Insp VIS			○◇D□▽	
020	020	○◇D■▽	Insp FPI			○◇D□▽	
030	030	○◇D■▽	Insp DIM			○◇D□▽	
040	040	○◇D■▽	Insp DIM			○◇D□▽	
050	050	○◇D■▽	Insp MAG			○◇D□▽	
060	060	○◇D□▽	Route - Parts			○◇D□▽	
070	070	○◇D□▽	Route - Bls			○◇D□▽	
080	080	○◇D■▽	Insp - VIS			○◇D□▽	
090	090	○◇D□▽	Route - Parts			○◇D□▽	
		○◇D□▽				○◇D□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ◇ TRANSPORTATION D DELAY

SUBJECT Chamber Assy FLOW PROCESS CHART Cleaning DATE 5/30/89

ITEM CODE PCN
 NSN
 P/N

WCD CTA043A WCD DATE 89152

10598A

CHART BEGINS 010

CHART ENDS 020

PREPARED BY Jim Eston

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●▷▷□▽	Grit Blast			○▷▷□▽	
020	020	○▷▷□▽	24 Hr Cool			○▷▷□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
▷ TRANSPORTATION D DELAY

SUBJECT Chamber Assy FLOW PROCESS CHART Inspection DATE 5/30/39

ITEM CODE
PCN
NSN
P.N

WCD TA043A WCD DATE 89026

10598A

CHART BEGINS 010

CHART ENDS 040

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
—	—	○◇◇□▽	—	40	380	●◇◇□▽	B/S
010	010	○◇◇■▽	Insp FPI	↑	400	●◇◇□▽	|
020	020	○◇◇■▽	Insp Vis	↑	410	●◇◇□▽	|
030	030	○◇◇■▽	Insp Dim	↑	440	●◇◇□▽	|
040	040	○◇◇■▽	Insp Vis	↓	450	○◇◇■▽	|
|	060	●◇◇□▽	B/S	↓	460	●◇◇□▽	↓
|	070	○◇◇■▽		40	510	○◇◇□▽	B/S
|	080	●◇◇□▽				○◇◇□▽	
|	090	●◇◇□▽				○◇◇□▽	
|	100	●◇◇□▽				○◇◇□▽	
|	110	●◇◇□▽				○◇◇□▽	
|	120	●◇◇□▽				○◇◇□▽	
|	130	●◇◇□▽				○◇◇□▽	
|	140	●◇◇□▽				○◇◇□▽	
|	150	●◇◇□▽				○◇◇□▽	
|	160	●◇◇□▽				○◇◇□▽	
|	170	●◇◇□▽				○◇◇□▽	
|	175	○◇◇■▽				○◇◇□▽	
|	180	●◇◇□▽				○◇◇□▽	
|	190	●◇◇□▽				○◇◇□▽	
|	200	●◇◇□▽				○◇◇□▽	
|	210	●◇◇□▽				○◇◇□▽	
|	212	○◇◇■▽				○◇◇□▽	
|	213	●◇◇□▽				○◇◇□▽	
|	214	●◇◇□▽				○◇◇□▽	
|	215	●◇◇□▽				○◇◇□▽	
|	220	●◇◇□▽				○◇◇□▽	
|	225	●◇◇□▽				○◇◇□▽	
|	260	●◇◇□▽				○◇◇□▽	
|	345	●◇◇□▽				○◇◇□▽	
|	347	○◇◇■▽				○◇◇□▽	
↓	350	○◇◇■▽	B/S			○◇◇□▽	

○ OPERATION

▽ STORAGE

□ INSPECTION

◇ TRANSPORTATION

○ DELAY

LSC-20147

SUBJECT Flow Process Chart Cleaning DATE 7/30/39

ITEM CODE
 PCM
 NSM
 PM

WCD CTA 044A WCD DATE 09152

10598A

CHART BEGINS 010

CHART ENDS 020 PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●◊◊◊▽	Grit Blast			◊◊◊◊▽	
020	020	◊◊●◊▽	24 Hr Cool			◊◊◊◊▽	
		◊◊◊◊▽				◊◊◊◊▽	
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OPERATION STORAGE INSPECTION
 TRANSPORTATION DELAY

LSC-20147

SUBJECT Chamber Assy FLOW PROCESS CHART Inspection DATE 8/14/59

ITEM CODE
 PCN
 NSN
 P/N

WCD T#044H WCD DATE 38263
 10598A

CHART BEGINS 001

CHART ENDS 060

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
001	001	●○○□▽	Info			○○○□▽	
003	003	○○○□▽	Insp HYD			○○○□▽	
010	010	○○○□▽	Insp FPI			○○○□▽	
020	020	○○○□▽	Insp MAG			○○○□▽	
030	030	○○○□▽	Insp VIS			○○○□▽	
040	040	○○○□▽	Conte - R/S			○○○□▽	
↓	050	○○○□▽	R/S			○○○□▽	
↓	060	○○○□▽	R/S			○○○□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ◁ TRANSPORTATION ▷ DELAY

SUBJECT Plenum Assy FLOW PROCESS CHART CLEARING DATE 5/30/98

ITEM CODE PCN
 NSN
 P/N

WCD CTA 057A WCD DATE 89152
10548H

CHART BEGINS 010

CHART ENDS 020 PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●○○□▽	Grit Blast			○○○□▽	
020	020	○○○□▽	24 Hr. Cool			○○○□▽	
		○○○□▽				○○○□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ▷ TRANSPORTATION D DELAY

SUBJECT Plenum Assy FLOW PROCESS CHART Inspection DATE 8 May 89

ITEM CODE
 PCN
 NSN
 P/N
 WCD TA057A WCD DATE 89058
10598A

CHART BEGINS 010

CHART ENDS 230

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○◇D■▽	Insp FPI			○◇D□▽	
020	020	○◇D■▽	Insp VIS			○◇D□▽	
030	030	○◇D■▽	Insp DIM			○◇D□▽	
050	050	○◆D□▽	Route R/S			○◇D□▽	
	070	●◇D□▽				○◇D□▽	
	080	●◇D□▽				○◇D□▽	
	090	●◇D□▽				○◇D□▽	
	091	●◇D□▽				○◇D□▽	
	093	●◇D□▽				○◇D□▽	
	096	●◇D□▽				○◇D□▽	
	099	●◇D□▽				○◇D□▽	
	101	●◇D□▽				○◇D□▽	
	102	●◇D□▽				○◇D□▽	
	103	●◇D□▽				○◇D□▽	
	105	○◇D■▽				○◇D□▽	
	110	●◇D□▽				○◇D□▽	
	118	●◇D□▽				○◇D□▽	
	120	●◇D□▽				○◇D□▽	
	122	●◇D□▽				○◇D□▽	
	124	●◇D□▽				○◇D□▽	
	126	●◇D□▽				○◇D□▽	
	130	○◇D■▽				○◇D□▽	
	135	●◇D□▽				○◇D□▽	
	140	●◇D□▽				○◇D□▽	
	200	●◇D□▽				○◇D□▽	
	220	●◇D□▽				○◇D□▽	
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○ OPERATION

▽ STORAGE

□ INSPECTION

◇ TRANSPORTATION

D DELAY

LSC-20147

FLOW PROCESS CHART *CLEANING*

SUBJECT *BOSSING ASSY*

DATE *5/20/39*

ITEM CODE /
PCN
NEN
PIN

WCD *CTA063A* WCD DATE *89152*

10598A

CHART BEGINS *010*

CHART ENDS *030*

PREPARED BY *Jim Eaton*

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●DD□▽	Paint Strip			○DD□▽	
020	020	●DD□▽	Grit Blast			○DD□▽	
030	030	○DD□▽	24 Hr Cool			○DD□▽	
		○DD□▽				○DD□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ▷ TRANSPORTATION D DELAY

FLOW PROCESS CHART INSPECTION

SUBJECT Housing Assy

DATE 5/30/82

ITEM CODE
PCN
NSN
P/N

WCD TA063A

WCD DATE 88081

10598A

CHART BEGINS 010

CHART ENDS 090

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○◊D■▽	Insp FPI			○◊D□▽	
020	020	○◊D■▽	Insp			○◊D□▽	
025	025	○◊D□▽	Route - Parts			○◊D□▽	
030	030	○◊D□▽	Route - B/S			○◊D□▽	
	539	●◊D□▽				○◊D□▽	
	640	●◊D□▽				○◊D□▽	
	044	●◊D□▽				○◊D□▽	
	045	●◊D□▽				○◊D□▽	
	046	●◊D□▽				○◊D□▽	
	050	○◊D□▽	↓			○◊D□▽	
	080	○◊D□▽				○◊D□▽	
	090	○◊D□▽	B/S			○◊D□▽	
		○◊D□▽				○◊D□▽	
		○◊D□▽				○◊D□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ◊ TRANSPORTATION D DELA.

10598H

GENERIC CLEANING FLOW PROCESS CHART

SUBJECT F46 STARTER FLOW PROCESS CHART CLEANING DATE 5/30/99

ITEM CODE WCD G5C WCD DATE 89152
PCN
NSM 10598H
P.N

CHART BEGINS 010

CHART ENDS 030

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●◊◊◊▽	Degrease			◊◊◊◊▽	
020	020	●◊◊◊▽	Grit Blast			◊◊◊◊▽	
030	030	◊◊◊◊▽	24Hr Cool			◊◊◊◊▽	
		◊◊◊◊▽				◊◊◊◊▽	
		◊◊◊◊▽				◊◊◊◊▽	
		◊◊◊◊▽				◊◊◊◊▽	
		◊◊◊◊▽				◊◊◊◊▽	
		◊◊◊◊▽				◊◊◊◊▽	
		◊◊◊◊▽				◊◊◊◊▽	
		◊◊◊◊▽				◊◊◊◊▽	
		◊◊◊◊▽				◊◊◊◊▽	
		◊◊◊◊▽				◊◊◊◊▽	
		◊◊◊◊▽				◊◊◊◊▽	
		◊◊◊◊▽				◊◊◊◊▽	
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○ OPERATION ▽ STORAGE ◻ INSPECTION
◊ TRANSPORTATION D DELAY

Generic
FLOW PROCESS CHART Inspection

SUBJECT Inspection Overall 10598A Steeler DATE 5/31/89

ITEM CODE

PCK
NSN
PIN

105984

WCD

G5I

WCD DATE

89152

CHART BEGINS

010

CHART ENDS

120

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	O D D <input checked="" type="checkbox"/> ▽	Insp FPI			O D D <input type="checkbox"/> ▽	
020	020	O D D <input checked="" type="checkbox"/> ▽	Insp Vis			O D D <input type="checkbox"/> ▽	
030	030	O D D <input checked="" type="checkbox"/> ▽	Insp DIM			O D D <input type="checkbox"/> ▽	
040	040	O D D <input checked="" type="checkbox"/> ▽	Insp MAG			O D D <input type="checkbox"/> ▽	
050	050	O D D <input checked="" type="checkbox"/> ▽	Insp Vis			O D D <input type="checkbox"/> ▽	
060	060	O D D <input checked="" type="checkbox"/> ▽	Insp HYD			O D D <input type="checkbox"/> ▽	
070	070	O D D <input checked="" type="checkbox"/> ▽	Insp FPI			O D D <input type="checkbox"/> ▽	
080	080	O D D <input checked="" type="checkbox"/> ▽	Insp Vis			O D D <input type="checkbox"/> ▽	
090	090	O <input checked="" type="checkbox"/> D <input type="checkbox"/> ▽	Route - R/S			O <input type="checkbox"/> D <input type="checkbox"/> ▽	
100	100	O <input checked="" type="checkbox"/> D <input type="checkbox"/> ▽	Route - Parts			O <input type="checkbox"/> D <input type="checkbox"/> ▽	
110	110	O D D <input checked="" type="checkbox"/> ▽	Insp HYD			O D D <input type="checkbox"/> ▽	
120	120	O <input checked="" type="checkbox"/> D <input type="checkbox"/> ▽	Route B/S			O <input type="checkbox"/> D <input type="checkbox"/> ▽	
		O <input type="checkbox"/> D <input type="checkbox"/> ▽				O <input type="checkbox"/> D <input type="checkbox"/> ▽	
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O OPERATION ▽ STORAGE INSPECTION
D TRANSPORTATION D DELAY

STARTED 10718

SUBJECT Housing Assy FLOW PROCESS CHART DATE 6/1/89

ITEM CODE
PCN
NSN
P/N

WCD CTA015T WCD DATE 89152

10718A

CHART BEGINS 010

CHART ENDS 030

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	● ◊ ◊ ◊ □ ▽	Paint Strip			○ ◊ ◊ ◊ □ ▽	
020	020	● ◊ ◊ ◊ □ ▽	Grit Blast			○ ◊ ◊ ◊ □ ▽	
030	030	○ ◊ ◊ ◊ □ ▽	24 Hr Cool			○ ◊ ◊ ◊ □ ▽	
		○ ◊ ◊ ◊ □ ▽				○ ◊ ◊ ◊ □ ▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ◊ TRANSPORTATION D DELAY

SUBJECT Housing Assy **FLOW PROCESS CHART Inspection** DATE 6/1/89

ITEM CODE PCN NSN P/N WCD TA 015 T WCD DATE E8132

107184

CHART BEGINS 010

CHART ENDS 031

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○ ○ D ■ ▽	Insp VIS			○ ○ D □ ▽	
012	012	○ ○ D □ ▽	Route - P/S			○ ○ D □ ▽	
↑	015	○ ○ D □ ▽	Route - P/S			○ ○ D □ ▽	
	020	● ○ D □ ▽	P/S			○ ○ D □ ▽	
	025	○ ○ D □ ▽	Route - P/S			○ ○ D □ ▽	
	026	○ ○ D □ ▽	Route - P/S			○ ○ D □ ▽	
	030	● ○ D □ ▽	P/S			○ ○ D □ ▽	
↓	031	○ ○ D □ ▽	Route - Parts			○ ○ D □ ▽	
		○ ○ D □ ▽				○ ○ D □ ▽	
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OPERATION STORAGE
 TRANSPORTATION DELAY INSPECTION

FLOW PROCESS CHART CLEANING

SUBJECT T Wheel

DATE 6/1/89

ITEM CODE
 PCN
 NSN
 P/N

X
 1078A-1

WCD CTA034T WCD DATE 89152

CHART BEGINS 010

CHART ENDS 030

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●◊◊◊▽	Wash			○◊◊◊▽	
020	020	●◊◊◊▽	Grit Blast			○◊◊◊▽	
030	030	○◊◊◊▽	24 Hr Cool			○◊◊◊▽	
		○◊◊◊▽				○◊◊◊▽	
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○ OPERATION ▽ STORAGE ◻ INSPECTION
 ◊ TRANSPORTATION ⊔ DELAY

SUBJECT T Wheel FLOW PROCESS CHART Inspection DATE 6/1/89

ITEM CODE
 PCN
 NSM
 P/N

WCD TA 034T WCD DATE 88272

10718A

CHART BEGINS 010

CHART ENDS 255 OP 035

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Insp FPI			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
020	020	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Insp VIS			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
030	030	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Insp DIM			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
035	035	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	R/S			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
	040	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Route			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
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	051	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
	052	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
	053	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
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	057	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
	060	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
	070	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
	240	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
	255	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Route - Parts			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
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OPERATION STORAGE INSPECTION
 TRANSPORTATION DELAY

FLOW PROCESS CHART **CLEANING**
 SUBJECT Chamber Assy Dome DATE 6/1/89

ITEM CODE
 PCN 10718
 NSN
 P/N
 WCD CTA035T WCD DATE 89152

CHART BEGINS 010

CHART ENDS 020 PREPARED BY Jim Elton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●○○□▽	Grit Blast			○○○□▽	
020	020	○○●□▽	24 Hr Cool			○○○□▽	
		○○○□▽				○○○□▽	
		○○○□▽				○○○□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ◊ TRANSPORTATION ▾ DELAY

FLOW PROCESS CHART INSPECTION

SUBJECT Chamber Assy (Dome) DATE 6/1/89

ITEM CODE PCN 10718 WCD TA 035T WCD DATE 88209
 NSN P.N

CHART BEGINS OP 005
 CHART ENDS OP 140 PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
005	005	○DD■▽	Insp HYD	140	140	●DD□▽	B/S
010	010	○DD■▽	Insp FPI	↓	150	●DD□▽	↓
020	020	○DD■▽	Insp VIS	↓	160	●DD□▽	↓
030	030	○DD■▽	Insp DIM	▽	180	○DD□▽	Route - Parts
032	032	●DD□▽	B/S			○DD□▽	
▲	033	●DD□▽				○DD□▽	
	040	●DD□▽				○DD□▽	
✓	045	●DD□▽				○DD□▽	
	050	●DD□▽				○DD□▽	
<	060	●DD□▽				○DD□▽	
	070	●DD□▽				○DD□▽	
	080	●DD□▽				○DD□▽	
	090	●DD□▽				○DD□▽	
✓	095	●DD□▽				○DD□▽	
<	096	●DD□▽				○DD□▽	
	101	●DD□▽				○DD□▽	
!	102	●DD□▽				○DD□▽	
	103	●DD□▽				○DD□▽	
	104	●DD□▽				○DD□▽	
	105	●DD□▽				○DD□▽	
	107	●DD□▽				○DD□▽	
	108	●DD□▽				○DD□▽	
	110	●DD□▽				○DD□▽	
||	112	●DD□▽				○DD□▽	
!	120	●DD□▽				○DD□▽	
!	121	●DD□▽				○DD□▽	
	122	●DD□▽				○DD□▽	
	123	●DD□▽				○DD□▽	
	124	●DD□▽	▽			○DD□▽	
↓	127	○DD□▽	Route			○DD□▽	
130	130	○DD□▽	Insp HYD			○DD□▽	
140	140	●DD□▽	B/S			○DD□▽	

○ OPERATION ▽ STORAGE □ INSPECTION
 ◊ TRANSPORTATION D DELAY

FLOW PROCESS CHART

SUBJECT Chamber Assy (Pitech Cap) DATE 6/1/89

ITEM CODE PCH
 HSH
 P/N
10718H

WCD CTA037T WCD DATE 89152

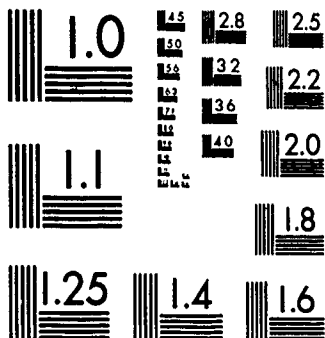
CHART BEGINS 010

CHART ENDS 030

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●▷▷□▽	mark			○▷▷□▽	
020	020	●▷▷□▽	Grit Blast			○▷▷□▽	
030	030	○▷▷□▽	24 Hr Cool			○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
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○ OPERATION ▷ TRANSPORTATION ▽ STORAGE ▷ DELAY □ INSPECTION



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

SUBJECT Chamber Assy (Breath Cap) FLOW PROCESS CHART Inspection DATE 6/1/89

ITEM CODE
PCN
NSN
P/N

WCD TA037T WCD DATE 88155

107184

CHART BEGINS 020

CHART ENDS 091

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
020	020	●◇◇□▽	Disassemble			○◇◇□▽	
025	025	○◇◇■▽	Insp HYD			○◇◇□▽	
030	030	○◇◇■▽	Insp MAG			○◇◇□▽	
035	035	○◇◇■▽	Insp VIS			○◇◇□▽	
040	040	○◇◇■▽	Insp DIM			○◇◇□▽	
050	050	○◇◇□▽	Route - B/S			○◇◇□▽	
	060	○◇◇□▽	Route - B/S			○◇◇□▽	
	070	●◇◇□▽	B/S			○◇◇□▽	
	085	○◇◇□▽	Route - B/S			○◇◇□▽	
	086	○◇◇□▽	Route - B/S			○◇◇□▽	
	087	●◇◇□▽	B/S			○◇◇□▽	
	088	●◇◇□▽				○◇◇□▽	
	089	●◇◇□▽				○◇◇□▽	
	090	●◇◇□▽	▽			○◇◇□▽	
▽	091	○◇◇□▽	Route - Parts			○◇◇□▽	
		○◇◇□▽				○◇◇□▽	
		○◇◇□▽				○◇◇□▽	
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		○◇◇□▽				○◇◇□▽	

○ OPERATION ▽ STORAGE □ INSPECTION
◇ TRANSPORTATION D DELAY

OVERALL GENERAL

SUBJECT B-52 Starter FLOW PROCESS CHART CLEANING DATE 6/1/89

ITEM CODE
PCN
NSN
PM

WCD G6C

WCD DATE 89152

10718A

CHART BEGINS 010

CHART ENDS 050

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	● ○ ○ ○ □ ▽	Marking			○ ○ ○ ○ □ ▽	
020	020	● ○ ○ ○ □ ▽	Degrease			○ ○ ○ ○ □ ▽	
030	030	● ○ ○ ○ □ ▽	Paint Strip			○ ○ ○ ○ □ ▽	
040	040	● ○ ○ ○ □ ▽	Grit Blast			○ ○ ○ ○ □ ▽	
050	050	○ ○ ○ ○ □ ▽	24 Hr Cool			○ ○ ○ ○ □ ▽	
		○ ○ ○ ○ □ ▽				○ ○ ○ ○ □ ▽	
		○ ○ ○ ○ □ ▽				○ ○ ○ ○ □ ▽	
		○ ○ ○ ○ □ ▽				○ ○ ○ ○ □ ▽	
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OPERATION STORAGE INSPECTION
 TRANSPORTATION DELAY

Generic for 107184

SUBJECT R-52 Starter FLOW PROCESS CHART Inspection DATE 6/1/89

ITEM CODE
 PCN
 NSM
 P.M
 107184

WCD G6I WCD DATE 89152

CHART BEGINS 010

CHART ENDS 090

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	O D D <input checked="" type="checkbox"/> ▽	Insp HYD			O D D <input type="checkbox"/> ▽	
020	020	O D D <input checked="" type="checkbox"/> ▽	Insp FPI			O D D <input type="checkbox"/> ▽	
030	030	O D D <input checked="" type="checkbox"/> ▽	Insp MAG			O D D <input type="checkbox"/> ▽	
040	040	O D D <input checked="" type="checkbox"/> ▽	Insp VIS			O D D <input type="checkbox"/> ▽	
050	050	O D D <input checked="" type="checkbox"/> ▽	Insp DIM			O D D <input type="checkbox"/> ▽	
060	060	O <input checked="" type="checkbox"/> D <input type="checkbox"/> ▽	Route - R/S			O <input checked="" type="checkbox"/> D <input type="checkbox"/> ▽	
070	070	O <input checked="" type="checkbox"/> D <input type="checkbox"/> ▽	Route - Parts			O <input checked="" type="checkbox"/> D <input type="checkbox"/> ▽	
080	080	O D D <input checked="" type="checkbox"/> ▽	Insp HYD			O D D <input type="checkbox"/> ▽	
090	090	O <input checked="" type="checkbox"/> D <input type="checkbox"/> ▽	Route - B/S			O <input checked="" type="checkbox"/> D <input type="checkbox"/> ▽	
		O D D <input type="checkbox"/> ▽				O D D <input type="checkbox"/> ▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ▷ TRANSPORTATION D DELAY

F16 AD G

SUBJECT Carb Face Seal FLOW PROCESS CHART CLEANING DATE 2/5/89

ITEM CODE
PCN
NSN
PIN

WCD CTA0142 WCD DATE 89152

12712A

CHART BEGINS 010

CHART ENDS 020

PREPARED BY Tim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="square"/> <input type="triangle-down"/>	Sonic Clean			<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="square"/> <input type="triangle-down"/>	
020	020	<input type="radio"/> <input checked="" type="radio"/> <input type="radio"/> <input type="radio"/> <input type="square"/> <input type="triangle-down"/>	24 Hr Cool			<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="square"/> <input type="triangle-down"/>	
		<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="square"/> <input type="triangle-down"/>				<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="square"/> <input type="triangle-down"/>	
		<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="square"/> <input type="triangle-down"/>				<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="square"/> <input type="triangle-down"/>	
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		<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="square"/> <input type="triangle-down"/>				<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="square"/> <input type="triangle-down"/>	
		<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="square"/> <input type="triangle-down"/>				<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="square"/> <input type="triangle-down"/>	
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		<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="square"/> <input type="triangle-down"/>				<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="square"/> <input type="triangle-down"/>	
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OPERATION STORAGE INSPECTION
 TRANSPORTATION DELAY

F16 A D G

SUBJECT Carbon Face Seal FLOW PROCESS CHART Inspect. DATE 6/5/99

ITEM CODE
PCM
NSN
PIN

WCD TA014L WCD DATE 89081

12712A

CHART BEGINS 010

CHART ENDS ~~080~~ 060

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○ ○ D □ ▽	Inspect V/S			○ ○ D □ ▽	
020	020	○ ○ D □ ▽	Inspect DIM			○ ○ D □ ▽	
030	030	○ ○ D □ ▽	Route - R/S			○ ○ D □ ▽	
060	060	● ○ D □ ▽	↓			○ ○ D □ ▽	
060	070	○ ○ D □ ▽	↓			○ ○ D □ ▽	
060	080	○ ○ D □ ▽	R/S			○ ○ D □ ▽	
		○ ○ D □ ▽				○ ○ D □ ▽	
		○ ○ D □ ▽				○ ○ D □ ▽	
		○ ○ D □ ▽				○ ○ D □ ▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
◊ TRANSPORTATION D DELAY

FIG A86

FLOW PROCESS CHART *Cleaning*

SUBJECT *Impeller Assy* DATE *6/5/89*

ITEM CODE
PCN
NSN
P/N

000

WCD *CTA076L* WCD DATE *89152*

12712#

CHART BEGINS *010*

CHART ENDS *020*

PREPARED BY *Jim Eaton*

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●▷▷□▽	<i>Sonic Clean</i>			○▷▷□▽	
020	020	○▷▷□▽	<i>24 Hr Cool</i>			○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
▷ TRANSPORTATION D DELAY

LSC-20147

F16 ADG

SUBJECT Impeller Assy FLOW PROCESS CHART Inspection DATE 6/5/39

ITEM CODE
 PCN
 NSN
 P/N 12712A
 WCD TA076L WCD DATE 89075

CHART BEGINS 001

CHART ENDS 998 PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
001	001	●○○□▽	Info			○○○□▽	
010	010	○○○□▽	Insp VIS			○○○□▽	
020	020	○○○□▽	Insp VIS			○○○□▽	
030	030	○○○□▽	Insp DIM			○○○□▽	
040	040	○○○□▽	Insp MFG			○○○□▽	
050	050	○○○□▽	Rte to Parts			○○○□▽	
051	-	○○○□▽	Rte to B/S			○○○□▽	
	060	●○○□▽				○○○□▽	
	070	●○○□▽				○○○□▽	
	080	●○○□▽				○○○□▽	
	090	●○○□▽				○○○□▽	
	095	○○○□▽				○○○□▽	
	100	●○○□▽				○○○□▽	
	110	○○○□▽				○○○□▽	
	120	●○○□▽				○○○□▽	
	130	○○○□▽				○○○□▽	
	140	○○○□▽				○○○□▽	
	150	○○○□▽				○○○□▽	
	160	●○○□▽				○○○□▽	
	170	●○○□▽				○○○□▽	
	180	○○○□▽				○○○□▽	
051	998	○○○□▽	R/S			○○○□▽	
		○○○□▽				○○○□▽	
		○○○□▽				○○○□▽	
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		○○○□▽				○○○□▽	

○ OPERATION ▽ STORAGE □ INSPECTION
 ◊ TRANSPORTATION ▽ DELAY

FKADG

SUBJECT Turbine Housing FLOW PROCESS CHART Cleaning DATE 2/5/89

ITEM CODE
PCN
NSN
PIN

WCD CTA077L WCD DATE 89152

12712

CHART BEGINS 010

CHART ENDS 020

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	● ○ □ ▽	Sonic Clean			○ □ ▽	
020	020	○ □ ▽	24HR Cool			○ □ ▽	
		○ □ ▽				○ □ ▽	
		○ □ ▽				○ □ ▽	
		○ □ ▽				○ □ ▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
◊ TRANSPORTATION D DELAY

F16 MSG

SUBJECT Turbine MSG FLOW PROCESS CHART Inspection DATE 6/5/89

ITEM CODE PCN NSN PIN
WCD TA077L WCD DATE 89075
12712 A

CHART BEGINS 001

CHART ENDS 998 PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
001	001	●○○□▽	Info			○○○□▽	
010	010	○○○□▽	Insp VIS			○○○□▽	
020	020	○○○□▽	Insp DIM			○○○□▽	
030	030	○○○□▽	Insp MFG			○○○□▽	
039	-	○○○□▽	Route - Parts			○○○□▽	
040	040	○○○□▽	Route - B/S			○○○□▽	
	050	●○○□▽				○○○□▽	
	060	●○○□▽				○○○□▽	
	070	●○○□▽				○○○□▽	
	080	●○○□▽				○○○□▽	
	085	○○○□▽				○○○□▽	
	090	●○○□▽				○○○□▽	
	100	○○○□▽				○○○□▽	
	110	●○○□▽				○○○□▽	
	120	○○○□▽				○○○□▽	
	130	○○○□▽				○○○□▽	
	140	●○○□▽				○○○□▽	
	150	●○○□▽				○○○□▽	
▽	160	○○○□▽				○○○□▽	
40	998	○○○□▽				○○○□▽	
		○○○□▽				○○○□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
◇ TRANSPORTATION D DELAY

FIG AD 6

SUBJECT Turbine FLOW PROCESS CHART CLEANING DATE 6/5/39

ITEM CODE ✓
PCN
NSN
P/N

WCD CTH080L WCD DATE 89152

12712A

CHART BEGINS 010

CHART ENDS 020

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●○○□▽	Sonic Clean			○○○□▽	
020	020	○○○□▽	24 Hr Cool			○○○□▽	
		○○○□▽				○○○□▽	
		○○○□▽				○○○□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ◻ TRANSPORTATION D DELAY

F16 ADG

FLOW PROCESS CHART *Inspection*

SUBJECT Turbine

DATE 6/5/89

ITEM CODE
PCK
NSN
PIN

WCD TAD802 WCD DATE 89060

127124

CHART BEGINS 001

CHART ENDS 230

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
001	001	○◇□▽	Info			○◇□▽	
010	010	○◇□▽	Insp VIS			○◇□▽	
020	020	○◇□▽	Insp			○◇□▽	
030	030	○◇□▽	Insp DIM			○◇□▽	
040	040	○◇□▽	Insp FFI			○◇□▽	
041	—	○◇□▽	Route - Parts			○◇□▽	
045	045	○◇□▽	Route - P/S			○◇□▽	
	047	●◇□▽				○◇□▽	
	050	●◇□▽				○◇□▽	
	110	○◇■▽				○◇□▽	
	120	●◇□▽				○◇□▽	
	130	●◇□▽				○◇□▽	
	140	○◇□▽				○◇□▽	
	150	●◇□▽				○◇□▽	
	160	○◇□▽				○◇□▽	
	170	●◇□▽				○◇□▽	
	180	○◇■▽				○◇□▽	
	190	○◇□▽				○◇□▽	
	200	●◇□▽				○◇□▽	
	210	○◇□▽				○◇□▽	
	220	●◇□▽				○◇□▽	
045	230	○◇□▽	B/S			○◇□▽	
		○◇□▽				○◇□▽	
		○◇□▽				○◇□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
◇ TRANSPORTATION D DELAY

F16 ADG Generic

SUBJECT F16 ADG FLOW PROCESS CHART Cleaning DATE 6/5/89

ITEM CODE PCN KSK P/M
WCD G7C WCD DATE 8915Z
12712A

CHART BEGINS 010
CHART ENDS 030 PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●○D□▽	Sonic Clean			○D□▽	
020	020	●○D□▽	Decrease			○D□▽	
030	030	○D□▽	24 Hr Cool			○D□▽	
		○D□▽				○D□▽	
		○D□▽				○D□▽	
		○D□▽				○D□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
◇ TRANSPORTATION D DELAY

F11 Generic

SUBJECT F11 ADG Generic FLOW PROCESS CHART Inspection DATE 6/5/39

ITEM CODE 12712 A WCD G7I WCD DATE 89152
 PCN
 NSN
 P/N

CHART BEGINS 010

CHART ENDS 060

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	O D D ■ ▽	Insp VIS			O D D □ ▽	
020	020	O D D ■ ▽	Insp DIM			O D D □ ▽	
030	030	O D D ■ ▽	Insp FPS			O D D □ ▽	
040	040	O D D ■ ▽	Insp MAG			O D D □ ▽	
050	050	O ◆ D □ ▽	Conte. Parts			O D D □ ▽	
060	060	O ◆ D □ ▽	Conte. B/S			O D D □ ▽	
		O D D □ ▽				O D D □ ▽	
		O D D □ ▽				O D D □ ▽	
		O D D □ ▽				O D D □ ▽	
		O D D □ ▽				O D D □ ▽	
		O D D □ ▽				O D D □ ▽	
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OPERATION STORAGE INSPECTION
 TRANSPORTATION DELAY

SUBJECT Differential Assy 2nd Stage FLOW PROCESS CHART DATE 7/30/89

ITEM CODE
 PCN
 NSM
 PM

WCD CT6813A WCD DATE 89152

13081A

CHART BEGINS 010

CHART ENDS 030

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●▷▷□▽	Deassemble			○▷▷□▽	
020	020	●▷▷□▽	Gv.F. Rlast			○▷▷□▽	
030	030	○▷▷□▽	24 Hr Cool			○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ▷ TRANSPORTATION ▽ DELAY

FLOW PROCESS CHART

SUBJECT DIFF USER ASSY, 2ND STAGE DATE 5-24-89

ITEM CODE
 PCN
 NSN 13081A
 P/N

WCD TG 813 A WCD DATE 88244

CHART BEGINS 010
 CHART ENDS 520 PREPARED BY R. G. ROBISON

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
—	—	○◇◇□▽	—	170	220	●◇◇□▽	B/s
010	010	●◇◇□▽	F.K.I	↑	221	●◇◇□▽	
020	020	●◇◇□▽	INSP. Vis.		222	●◇◇□▽	
030	030	○◇◇■▽	INSP. Dim.		223	●◇◇□▽	
—	—	○◇◇□▽	—		224	●◇◇□▽	
040	040	●◇◇□▽	RECORD DATA		225	●◇◇□▽	
050	050	○◇◇□▽	B/s		226	●◇◇□▽	
060	060	●◇◇□▽			227	●◇◇□▽	
↑	070	●◇◇□▽			228	●◇◇□▽	
↑	100	●◇◇□▽			229	●◇◇□▽	
↑	110	○◇◇□▽			230	●◇◇□▽	
↑	111	○◇◇□▽			232	●◇◇□▽	
↑	112	○◇◇□▽			235	●◇◇□▽	
↑	113	○◇◇□▽			240	●◇◇□▽	
↑	114	○◇◇□▽			300	●◇◇□▽	
↑	115	○◇◇□▽			305	○◇◇■▽	
↑	116	○◇◇□▽			310	○◇◇□▽	
↑	117	○◇◇□▽			320	○◇◇□▽	
↑	118	○◇◇□▽			330	●◇◇□▽	
↑	119	○◇◇□▽			340	○◇◇□▽	
↑	120	○◇◇□▽			350	●◇◇□▽	
↑	130	○◇◇□▽			355	●◇◇□▽	
↑	131	○◇◇□▽			360	●◇◇□▽	
↑	132	○◇◇□▽			370	●◇◇□▽	
↓	133	○◇◇□▽	↓		380	●◇◇□▽	
60	150	○◇◇□▽	B/s		390	●◇◇□▽	
160	160	●◇◇□▽	Glass Blast		410	●◇◇□▽	
165	165	○◇◇□▽	B/s		420	●◇◇□▽	
170	170	○◇◇■▽			430	●◇◇□▽	
↑	200	●◇◇□▽			440	●◇◇□▽	
↓	210	●◇◇□▽	↓	↓	450	●◇◇□▽	↓
170	215	●◇◇□▽	B/s	170	460	●◇◇□▽	B/s

○ OPERATION ▽ STORAGE □ INSPEC' ON
 ◇ TRANSPORTATION D DELAY

FLOW PROCESS CHART

SUBJECT DIFFUSER ASSY, 2ND STAGE

DATE 5-24-89

ITEM CODE
PCN
NSN
P/N

WCD TG 813 A WCD DATE 88244

13081A

CHART BEGINS 005

CHART ENDS ~~170~~ 170

PREPARED BY R. F. ROBISON

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
470	470	<input type="circle"/> <input type="diamond"/> <input type="square"/> <input type="inverted-triangle"/>	B/s			<input type="circle"/> <input type="diamond"/> <input type="square"/> <input type="inverted-triangle"/>	
170	490	<input checked="" type="circle"/> <input type="diamond"/> <input type="square"/> <input type="inverted-triangle"/>	B/s			<input type="circle"/> <input type="diamond"/> <input type="square"/> <input type="inverted-triangle"/>	
170	520	<input checked="" type="circle"/> <input type="diamond"/> <input type="square"/> <input type="inverted-triangle"/>	B/s			<input type="circle"/> <input type="diamond"/> <input type="square"/> <input type="inverted-triangle"/>	
		<input type="circle"/> <input type="diamond"/> <input type="square"/> <input type="inverted-triangle"/>				<input type="circle"/> <input type="diamond"/> <input type="square"/> <input type="inverted-triangle"/>	
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OPERATION STORAGE INSPECTION
 TRANSPORTATION DELAY

FLOW PROCESS CHART

SUBJECT Housing Assy, 1st Stage Inlet DATE 5/31/89

ITEM CODE PCN
 NSM
 PM
 WCD CTG816F WCD DATE 89152
 13081A

CHART BEGINS 010
 CHART ENDS 030 PREPARED BY Jim Eaten

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●◊◊◊▽	Degrease			○◊◊◊▽	
020	020	●◊◊◊▽	Grit Blast			○◊◊◊▽	
030	030	○◊◊◊▽	24 Hr Cool			○◊◊◊▽	
		○◊◊◊▽				○◊◊◊▽	
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○ OPERATION ▼ STORAGE □ INSPECTION
 ◊ TRANSPORTATION ◻ DELAY

FLOW PROCESS CHART

SUBJECT rousing Assy for 15000 (Inlet)

DATE 5/25/89

ITEM CODE
PCN
NSN
P/N

WCD TG 915 F WCD DATE 89097

13081A

CHART BEGINS 020 005

CHART ENDS 990

PREPARED BY Tim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
005	005	●◊◊◻▽	Check P/N	30	610	●◊◊◻▽	Clean
010	010	●◊◊◻▽	Check FPI	↑	615	○◊◊◻▽	Route
020	020	○◊◊◻▽	Insp Vis	↓	620	○◊◊◻▽	Inspect
030	030	○◊◊◻▽	Insp Dim	30	640	●◊◊◻▽	Corrosion Treat
↑	060	○◊◊◻▽	Route	980	980	○◊◊◻▽	Route
	070	○◊◊◻▽	Route	990	990	○◊◊◻▽	Parts Pool
	080	●◊◊◻▽	Clean			○◊◊◻▽	
	100	●◊◊◻▽	Remove Studs			○◊◊◻▽	
	180	●◊◊◻▽	Repair Cracks			○◊◊◻▽	
	200	●◊◊◻▽	Prepare Welding			○◊◊◻▽	
	220	●◊◊◻▽	Prepare Welding			○◊◊◻▽	
	240	●◊◊◻▽	Prepare Welding			○◊◊◻▽	
	250	○◊◊◻▽	Route			○◊◊◻▽	
	260	●◊◊◻▽	Preheat			○◊◊◻▽	
	280	●◊◊◻▽	Weld			○◊◊◻▽	
	300	●◊◊◻▽	Weld			○◊◊◻▽	
	320	●◊◊◻▽	Weld			○◊◊◻▽	
	340	●◊◊◻▽	Weld			○◊◊◻▽	
	360	●◊◊◻▽	Stress Relieve			○◊◊◻▽	
	380	○◊◊◻▽	Check Welds			○◊◊◻▽	
	390	○◊◊◻▽	Route			○◊◊◻▽	
	400	●◊◊◻▽	Grind			○◊◊◻▽	
	420	●◊◊◻▽	Repair Holes			○◊◊◻▽	
	440	●◊◊◻▽	Repair Surface			○◊◊◻▽	
	460	○◊◊◻▽	Route			○◊◊◻▽	
	480	●◊◊◻▽	Mask			○◊◊◻▽	
	500	●◊◊◻▽	Anodize			○◊◊◻▽	
	520	○◊◊◻▽	Route			○◊◊◻▽	
	540	●◊◊◻▽	Replace Studs			○◊◊◻▽	
	560	●◊◊◻▽	Premachine			○◊◊◻▽	
	580	●◊◊◻▽	Install Sleeve			○◊◊◻▽	
030	600	●◊◊◻▽	Nicks & Scraps			○◊◊◻▽	

○ OPERATION ▽ STORAGE ◻ INSPECTION
◊ TRANSPORTATION D DELAY

SUBJECT Housing Assy Accr: 101 **FLOW PROCESS CHART** Cleaning DATE 5/30/89

ITEM CODE WCD CTG85A WCD DATE 89152
 PCN 13081A
 NSN
 P/N

CHART BEGINS 010

CHART ENDS 030

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●◐◑◒▽	Deassemble			◐◑◒◓▽	
020	020	●◐◑◒▽	Grit Blast			◐◑◒◓▽	
030	030	◐◑◒◓▽	24 Hr Cool			◐◑◒◓▽	
		◐◑◒◓▽				◐◑◒◓▽	
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OPERATION STORAGE INSPECTION
 TRANSPORTATION DELAY

FLOW PROCESS CHART Inspection

SUBJECT HOUSING ASSY. ACCESSORY DRIVE DATE 5-24-89

ITEM CODE
PCN
NSN
PIN

WCD TG 859A WCD DATE 87270

130814

CHART BEGINS 005

CHART ENDS 170

PREPARED BY R. G. ROBINSON

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
--	--	○▷▷□▽	—			○▷▷□▽	
—	—	○▷▷□▽	—			○▷▷□▽	
005	005	●▷▷□▽	"I.D." PN/NSN/CN			○▷▷□▽	
010	010	○▷▷■▽	INSP. VIS.			○▷▷□▽	
020	020	○▷▷■▽	INSP. DIM			○▷▷□▽	
—	—	○▷▷□▽	—			○▷▷□▽	
030	030	○▷▷□▽	B/S			○▷▷□▽	
035	035	○▷▷□▽				○▷▷□▽	
*	038	○▷▷□▽				○▷▷□▽	
	040	●▷▷□▽				○▷▷□▽	
	045	●▷▷□▽				○▷▷□▽	
	050	○▷▷■▽				○▷▷□▽	
	055	○▷▷□▽				○▷▷□▽	
	060	●▷▷□▽				○▷▷□▽	
	070	●▷▷□▽				○▷▷□▽	
	080	●▷▷□▽				○▷▷□▽	
	090	●▷▷□▽				○▷▷□▽	
	100	●▷▷□▽				○▷▷□▽	
	110	●▷▷□▽				○▷▷□▽	
	115	●▷▷□▽				○▷▷□▽	
	120	●▷▷□▽				○▷▷□▽	
	125	○▷▷□▽				○▷▷□▽	
	130	○▷▷■▽				○▷▷□▽	
	135	○▷▷□▽				○▷▷□▽	
	140	●▷▷□▽				○▷▷□▽	
↓	150	●▷▷□▽	↓			○▷▷□▽	
035	170	○▷▷□▽	B/S			○▷▷□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
▷ TRANSPORTATION D DELAY

SUBJECT Shaft Assy. Fan Index Gear = FLOW PROCESS CHART

DATE 5-11-89

ITEM CODE
 PCN
 NSN
 P/N

WCD CTG890A WCD DATE 89152

13081A

CHART BEGINS 010

CHART ENDS 030

PREPARED BY Jim Fator

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
		○▷▷□▽				○▷▷□▽	
010	010	●▷▷□▽	Decrease			○▷▷□▽	
020	020	●▷▷□▽	Grit Blast			○▷▷□▽	
030	030	○▷▷□▽	24 Hr. Cool			○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
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OPERATION STORAGE INSPECTION
 TRANSPORTATION DELAY

FLOW PROCESS CHART

SUBJECT SHAFT ASSY, FAN IDLER GEAR

DATE 5-24-89

ITEM CODE
PCN
NSN
P/N

WCD TG 890 A WCD DATE 87240

13081A

CHART BEGINS 010

CHART ENDS 08060

PREPARED BY P. G. ROBISON

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
—	—	○▷▷□▽	—			○▷▷□▽	
—	—	○▷▷□▽	—			○▷▷□▽	
010	010	●▷▷□▽	1D. P/N/NSN/CW			○▷▷□▽	
020	020	●▷▷□▽	INSP VIS			○▷▷□▽	
030	030	○▷▷■▽	INSP DIM			○▷▷□▽	
—	—	○▷▷□▽	—			○▷▷□▽	
040	040	●▷▷□▽	COR. TREAT			○▷▷□▽	
050	050	○●▷□▽	B/s			○▷▷□▽	
060	060	○▷▷□▽				○▷▷□▽	
060	070	○▷▷□▽	↓			○▷▷□▽	
060	080	○▷▷□▽	B/s			○▷▷□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
▷ TRANSPORTATION D DELAY

SUBJECT 1111 Combustion Chamber FLOW PROCESS CHART Cleaning DATE 5/30/98

ITEM CODE
PCN
NSN
P/N

WCD G9C

WCD DATE 89152

13081A

CHART BEGINS 010

CHART ENDS 030

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
010	010	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Decrease			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
020	020	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Grit Blast			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
030	030	<input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	24 Hr. Cool			<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
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OPERATION

TRANSPORTATION

STORAGE

DELAY

INSPECTION

FLOW PROCESS CHART *Inspection*

SUBJECT 13081A GTE Sencil

DATE 3 89

ITEM CODE
PCN
NSN
PN

WCD

G9I

WCD DATE

89152

13081A

CHART BEGINS 010

CHART ENDS 130

PREPARED BY Jim Eator

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○DD■▽	Insp FPI			○DD□▽	
020	020	○DD■▽	Insp Vis			○DD□▽	
030	030	○DD■▽	Insp DIM			○DD□▽	
040	040	○DD■▽	Insp MAG			○DD□▽	
050	050	○DD□▽	Route - Parts			○DD□▽	
060	060	○DD□▽	Route - R/S			○DD□▽	
↑	070	●DD□▽	R/S			○DD□▽	
↓	080	●DD□▽				○DD□▽	
↓	090	●DD□▽				○DD□▽	
60	100	○DD□▽	Route Insp			○DD□▽	
110	110	○DD■▽	Insp FPI			○DD□▽	
120	120	○DD■▽	Insp Vis			○DD□▽	
130	130	○DD□▽	Route - Parts			○DD□▽	
		○DD□▽				○DD□▽	
		○DD□▽				○DD□▽	
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		○DD□▽				○DD□▽	

○ OPERATION ▽ STORAGE □ INSPECTION
 ◇ TRANSPORTATION D DELAY

SUBJECT Diffuser Assy, 2nd Stage FLOW PROCESS CHART DATE 5/25/09

ITEM CODE
PCN
NSN
P/N

WCD TG 813H WCD DATE 88244

130947

CHART BEGINS OP 010

CHART ENDS OP 170 (pg 2)

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○●◇□▽	Insp FPI	170:	222	●◇◇□▽	B/S
020	020	○◇◇□▽	Insp Vis	↑	223	●◇◇□▽	
030	030	○◇◇□▽	Insp Dim		224	●◇◇□▽	
040	040	○◇◇□▽	List Defects		225	●◇◇□▽	
050	050	○◇◇□▽	B/S		226	●◇◇□▽	
060	060	●◇◇□▽			227	●◇◇□▽	
↑	070	●◇◇□▽			228	●◇◇□▽	
	100	●◇◇□▽			229	●◇◇□▽	
	110	●◇◇□▽			230	●◇◇□▽	
	111	●◇◇□▽			232	●◇◇□▽	
	112	●◇◇□▽			235	●◇◇□▽	
	113	●◇◇□▽			240	●◇◇□▽	
	114	●◇◇□▽			300	●◇◇□▽	
	115	●◇◇□▽			305	○◇◇□▽	
	116	●◇◇□▽			310	○◇◇□▽	
	117	●◇◇□▽			320	○◇◇□▽	
	118	●◇◇□▽			330	●◇◇□▽	
	119	●◇◇□▽			340	○◇◇□▽	
	120	●◇◇□▽			345	●◇◇□▽	
	130	●◇◇□▽			350	●◇◇□▽	
	131	●◇◇□▽			355	●◇◇□▽	
	132	●◇◇□▽			360	●◇◇□▽	
	133	●◇◇□▽			370	●◇◇□▽	
60	150	○◇◇□▽	B/S		380	●◇◇□▽	
160	160	●◇◇□▽	Glass Blast		390	●◇◇□▽	
165	165	○◇◇□▽	B/S		400	●◇◇□▽	
170	170	○◇◇□▽			410	●◇◇□▽	
	200	●◇◇□▽			420	●◇◇□▽	
	210	●◇◇□▽			430	●◇◇□▽	
	215	●◇◇□▽			440	●◇◇□▽	
	220	●◇◇□▽			450	●◇◇□▽	
↓	221	●◇◇□▽	B/S	170	460	●◇◇□▽	B/S

○ OPERATION ▽ STORAGE □ INSPECTION
◇ TRANSPORTATION D DELAY

SUBJECT 1/0221e Turbine **FLOW PROCESS CHART** *Insp.* DATE 5/25/84

ITEM CODE
 PCN
 NSM
 P/N 13094A
 WCD TG 841F WCD DATE 39090

CHART BEGINS 005
 CHART ENDS 998 PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
005	005	●◊◊◻▽	Circle P/N			◊◊◊◻▽	
010	010	◊◊◊◻▽	Insp Yis			◊◊◊◻▽	
020	020	◊◊◊◻▽	Insp Vis			◊◊◊◻▽	
030	030	◊◊◊◻▽	Insp Iis			◊◊◊◻▽	
050	050	◊◊◊◻▽	Parts - Parts			◊◊◊◻▽	
100	100	●◊◊◻▽	B/S			◊◊◊◻▽	
↑	120	◊◊◊◻▽				◊◊◊◻▽	
	140	●◊◊◻▽				◊◊◊◻▽	
	150	●◊◊◻▽				◊◊◊◻▽	
	160	●◊◊◻▽				◊◊◊◻▽	
	170	●◊◊◻▽				◊◊◊◻▽	
	175	●◊◊◻▽				◊◊◊◻▽	
	180	●◊◊◻▽				◊◊◊◻▽	
	200	◊◊◊◻▽				◊◊◊◻▽	
	220	●◊◊◻▽				◊◊◊◻▽	
	230	◊◊◊◻▽				◊◊◊◻▽	
	240	●◊◊◻▽				◊◊◊◻▽	
	250	◊◊◊◻▽				◊◊◊◻▽	
	260	●◊◊◻▽				◊◊◊◻▽	
	270	●◊◊◻▽				◊◊◊◻▽	
	280	●◊◊◻▽				◊◊◊◻▽	
	290	●◊◊◻▽				◊◊◊◻▽	
	350	◊◊◊◻▽				◊◊◊◻▽	
	400	●◊◊◻▽				◊◊◊◻▽	
	440	●◊◊◻▽				◊◊◊◻▽	
↓	500	◊◊◊◻▽				◊◊◊◻▽	
100	998	◊◊◊◻▽	B/S			◊◊◊◻▽	
		◊◊◊◻▽				◊◊◊◻▽	
		◊◊◊◻▽				◊◊◊◻▽	
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○ OPERATION ▽ STORAGE ◻ INSPECTION
 ◊ TRANSPORTATION D DELAY

SUBJECT Plenum Turbine FLOW PROCESS CHART Inspection DATE 1-2-59

ITEM CODE
 PCN
 NSN
 P/N

WCD TS04K9 WCD DATE 9270

13094A

CHART BEGINS 002

CHART ENDS 022

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
002	002	○▷▷□▽	Insp FPI			○▷▷□▽	
004	004	○▷▷□▽	Therp Vis			○▷▷□▽	
005	005	●▷▷□▽	B/S			○▷▷□▽	
	006	●▷▷□▽				○▷▷□▽	
	008	●▷▷□▽				○▷▷□▽	
	010	●▷▷□▽				○▷▷□▽	
	012	●▷▷□▽				○▷▷□▽	
	014	●▷▷□▽				○▷▷□▽	
	016	○▷▷□▽				○▷▷□▽	
	018	●▷▷□▽				○▷▷□▽	
	020	○▷▷□▽				○▷▷□▽	
	022	○▷▷□▽	B/S			○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
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○ OPERATION ▽ STORAGE
 ▷ TRANSPORTATION ▽ DELAY □ INSPECTION

GTR

SUBJECT Accessory Case FLOW PROCESS CHART INSPECTION DATE 5/25/89

ITEM CODE
PCN
NSN
P/N

WCD TG 490 F WCD DATE 88338

13095A

CHART BEGINS 003

CHART ENDS 200

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
—	—	○ ○ ○ □ ▽	—	45	156	● ○ ○ □ ▽	B/S
—	—	○ ○ ○ □ ▽	—	↑	160	● ○ ○ □ ▽	
—	—	○ ○ ○ □ ▽	—		161	● ○ ○ □ ▽	
003	003	● ○ ○ □ ▽	Circle P/N		162	● ○ ○ □ ▽	
005	005	○ ○ ○ ■ ▽	Insp FPI		163	○ ○ ○ ■ ▽	
010	010	○ ○ ○ ■ ▽	Insp Vis	↓	165	○ ○ ○ □ ▽	
—	—	○ ○ ○ □ ▽		45	167	○ ○ ○ □ ▽	▽
040	040	○ ○ ○ ■ ▽	Insp Dim	170	170	● ○ ○ □ ▽	Clean Shavings
041	041	● ○ ○ □ ▽	List Defects	180	180	● ○ ○ □ ▽	Oil Flush
045	045	○ ○ ○ □ ▽	B/S	190	190	● ○ ○ □ ▽	B/S
↑	050	● ○ ○ □ ▽		200	200	○ ○ ○ □ ▽	B/S
	055	○ ○ ○ □ ▽				○ ○ ○ □ ▽	
	060	● ○ ○ □ ▽				○ ○ ○ □ ▽	
	065	○ ○ ○ ■ ▽				○ ○ ○ □ ▽	
	067	● ○ ○ □ ▽				○ ○ ○ □ ▽	
	068	○ ○ ○ □ ▽				○ ○ ○ □ ▽	
	070	● ○ ○ □ ▽				○ ○ ○ □ ▽	
	075	● ○ ○ □ ▽				○ ○ ○ □ ▽	
	078	○ ○ ○ □ ▽				○ ○ ○ □ ▽	
	080	○ ○ ○ ■ ▽				○ ○ ○ □ ▽	
	083	○ ○ ○ □ ▽				○ ○ ○ □ ▽	
	085	● ○ ○ □ ▽				○ ○ ○ □ ▽	
	090	● ○ ○ □ ▽				○ ○ ○ □ ▽	
	095	● ○ ○ □ ▽				○ ○ ○ □ ▽	
	100	● ○ ○ □ ▽				○ ○ ○ □ ▽	
	105	● ○ ○ □ ▽				○ ○ ○ □ ▽	
	110	● ○ ○ □ ▽				○ ○ ○ □ ▽	
	120	● ○ ○ □ ▽				○ ○ ○ □ ▽	
	130	● ○ ○ □ ▽				○ ○ ○ □ ▽	
	140	● ○ ○ □ ▽				○ ○ ○ □ ▽	
↓	150	● ○ ○ □ ▽				○ ○ ○ □ ▽	
45	155	● ○ ○ □ ▽	B/S			○ ○ ○ □ ▽	

○ OPERATION

▽ STORAGE

□ INSPECTION

◊ TRANSPORTATION

D DELAY

LSC-20147

SUBJECT Liner, Combustion Chamber FLOW PROCESS CHART INSP DATE 5/25/89

ITEM CODE
 PCN
 NSM
 P/M

WCD TG 611D

WCD DATE 88258

13095A

CHART BEGINS 005

CHART ENDS 090

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
—	—	○▷▷□▽	←			○▷▷□▽	
—	—	○▷▷□▽	—			○▷▷□▽	
—	—	○▷▷□▽	—			○▷▷□▽	
005	005	○▷▷■▽	Insp Vis			○▷▷□▽	
010	010	○▷▷■▽	Insp Vis			○▷▷□▽	
020	020	●▷▷□▽	Mach Setup			○▷▷□▽	
—	—	○▷▷□▽	—			○▷▷□▽	
025	B/S	○▷▷□▽	R/S			○▷▷□▽	
032	032	●▷▷□▽				○▷▷□▽	
	034	●▷▷□▽				○▷▷□▽	
	036	●▷▷□▽				○▷▷□▽	
	038	●▷▷□▽				○▷▷□▽	
	039	○▷▷■▽				○▷▷□▽	
	040	●▷▷□▽				○▷▷□▽	
	045	●▷▷□▽				○▷▷□▽	
	050	●▷▷□▽				○▷▷□▽	
	052	●▷▷□▽				○▷▷□▽	
	055	●▷▷□▽				○▷▷□▽	
	057	●▷▷□▽				○▷▷□▽	
	060	●▷▷□▽				○▷▷□▽	
	065	●▷▷□▽				○▷▷□▽	
	070	●▷▷□▽				○▷▷□▽	
	075	●▷▷□▽				○▷▷□▽	
	080	○▷▷■▽				○▷▷□▽	
	082	●▷▷□▽				○▷▷□▽	
	085	○▷▷□▽	↓			○▷▷□▽	
032	090	○▷▷□▽	B/S			○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	

○ OPERATION
 ▷ TRANSPORTATION

▽ STORAGE
 ▽ DELAY

□ INSPECTION

SUBJECT TORUS, TURBINE FLOW PROCESS CHART DATE 5/25/89

ITEM CODE
PCN
NSN
P/M

WCD TG615D WCD DATE 88224

13095A

CHART BEGINS 010

CHART ENDS 310

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
—	—	○▷▷□▽	—	55	250	●▷▷□▽	B/S
—	—	○▷▷□▽	—	↑	260	●▷▷□▽	|
—	—	○▷▷□▽	—	↑	270	○▷▷■▽	|
010	010	○▷▷■▽	Insp FPI	↑	280	●▷▷□▽	|
020	020	○▷▷■▽	Insp Vis	↓	290	○▷▷□▽	|
030	030	○▷▷■▽	Insp Vis	↓	300	○▷▷□▽	▽
040	040	○▷▷■▽	Insp Vis	55	310	○▷▷□▽	B/S
045	045	○▷▷■▽	Insp Dim			○▷▷□▽	
—	—	○▷▷□▽	—			○▷▷□▽	
050	050	○▷▷□▽	B/S			○▷▷□▽	
055	055	○▷▷□▽				○▷▷□▽	
↑	060	●▷▷□▽				○▷▷□▽	
	070	●▷▷□▽				○▷▷□▽	
	080	●▷▷□▽				○▷▷□▽	
	090	●▷▷□▽				○▷▷□▽	
	100	●▷▷□▽				○▷▷□▽	
	110	●▷▷□▽				○▷▷□▽	
	120	●▷▷□▽				○▷▷□▽	
	130	●▷▷■▽				○▷▷□▽	
	140	●▷▷□▽				○▷▷□▽	
	150	●▷▷□▽				○▷▷□▽	
	155	●▷▷□▽				○▷▷□▽	
	160	●▷▷□▽				○▷▷□▽	
	165	●▷▷□▽				○▷▷□▽	
	170	●▷▷□▽				○▷▷□▽	
	180	●▷▷□▽				○▷▷□▽	
	190	●▷▷□▽				○▷▷□▽	
	200	●▷▷□▽				○▷▷□▽	
	205	●▷▷□▽				○▷▷□▽	
	210	○▷▷■▽				○▷▷□▽	
↓	220	●▷▷□▽	Y			○▷▷□▽	
55	230	●▷▷□▽	B/S			○▷▷□▽	

○ OPERATION ▽ STORAGE □ INSPECTION
▷ TRANSPORTATION D DELAY

FLOW PROCESS CHART

SUBJECT Wheel & Shaft Assembly

DATE 5/25/89

ITEM CODE
 PCH
 NSN
 P/N

WCD TG645 D WCD DATE 87287

13095A

CHART BEGINS 010

CHART ENDS 100 120

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
—	—	○▷▷▷□▽	—	120	270	●▷▷▷□▽	B/S
—	—	○▷▷▷□▽	—	↑	275	●▷▷▷□▽	|
—	—	○▷▷▷□▽	—	↓	280	●▷▷▷□▽	|
010	010	○▷▷▷□▽	Insp FPI	↓	290	●▷▷▷□▽	↓
020	020	○▷▷▷□▽	Insp Vis	120	300	●▷▷▷□▽	B/S
030	030	○▷▷▷□▽	Insp Vis			○▷▷▷□▽	
040	040	○▷▷▷□▽	Insp Vis			○▷▷▷□▽	
050	050	○▷▷▷□▽	Insp Vis			○▷▷▷□▽	
055	055	○▷▷▷□▽	Insp Vis			○▷▷▷□▽	
060	060	○▷▷▷□▽	Insp Vis			○▷▷▷□▽	
070	070	○▷▷▷□▽	Insp Vis			○▷▷▷□▽	
080	080	○▷▷▷□▽	Insp Vis			○▷▷▷□▽	
085	085	○▷▷▷□▽	Insp Vis			○▷▷▷□▽	
090	090	○▷▷▷□▽	Insp Dim			○▷▷▷□▽	
		○▷▷▷□▽				○▷▷▷□▽	
100	100	○▷▷▷□▽	Insp Dim			○▷▷▷□▽	
110	110	○▷▷▷□▽	Route-Parts			○▷▷▷□▽	
120	120	○▷▷▷□▽	Route-B/S			○▷▷▷□▽	
↑	130	●▷▷▷□▽	B/S			○▷▷▷□▽	
	140	●▷▷▷□▽				○▷▷▷□▽	
	150	●▷▷▷□▽				○▷▷▷□▽	
	160	●▷▷▷□▽				○▷▷▷□▽	
	170	●▷▷▷□▽				○▷▷▷□▽	
	180	●▷▷▷□▽				○▷▷▷□▽	
	190	●▷▷▷□▽				○▷▷▷□▽	
	200	●▷▷▷□▽				○▷▷▷□▽	
	210	●▷▷▷□▽				○▷▷▷□▽	
	220	●▷▷▷□▽				○▷▷▷□▽	
	230	●▷▷▷□▽				○▷▷▷□▽	
	240	●▷▷▷□▽				○▷▷▷□▽	
↓	250	●▷▷▷□▽				○▷▷▷□▽	
120	260	●▷▷▷□▽	B/S			○▷▷▷□▽	

○ OPERATION ▽ STORAGE □ INSPECTION
 ▷ TRANSPORTATION D DELAY

GENERAL

FLOW PROCESS CHART Inspection

SUBJECT GTE 85-180 DATE 6/2/89

ITEM CODE PCN
 NSM
 P/M

WCD G II I WCD DATE 89152

13095 A

CHART BEGINS 010

CHART ENDS 110

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	○▷▷▷□▽	Insp VIS			○▷▷▷□▽	
020	020	○▷▷▷□▽	Insp FPI			○▷▷▷□▽	
030	030	○▷▷▷□▽	Insp DIM			○▷▷▷□▽	
040	040	○▷▷▷□▽	Insp DIM			○▷▷▷□▽	
050	050	○▷▷▷□▽	Insp DIM			○▷▷▷□▽	
060	060	○▷▷▷□▽	Insp DIM			○▷▷▷□▽	
070	070	○▷▷▷□▽	Insp MAG			○▷▷▷□▽	
080	080	○▷▷□▽	Route-Parts			○▷▷□▽	
090	090	○▷▷□▽	Route-R/S			○▷▷□▽	
100	100	●▷▷□▽	Grit Blast			○▷▷□▽	
110	110	○▷▷□▽	Route-Parts			○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
		○▷▷□▽				○▷▷□▽	
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OPERATION STORAGE INSPECTION
 TRANSPORTATION DELAY

FLOW PROCESS CHART CLEANING

SUBJECT Combusitor Housing Assy DATE 6/5/89

ITEM CODE WCD CTA109U WCD DATE 89152
 PCN
 NSN 130964
 P/N

CHART BEGINS 010
 CHART ENDS 040 PREPARED BY Jim E. Ton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●DD□▽	Clean Carbon			○DD□▽	
020	020	⊙DD□▽	Rinse - Dry			○DD□▽	
030	030	⊙DD□▽	Clean Solvent			○DD□▽	
040	040	○DD●□▽	24 Hr Cool			○DD□▽	
		○DD□▽				○DD□▽	
		○DD□▽				○DD□▽	
		○DD□▽				○DD□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ⊙ TRANSPORTATION D DELAY

FILE NO 13096A

SUBJECT Combinator Insp Flow FLOW PROCESS CHART Inspection DATE 11/5/89

ITEM CODE WCD TA109U WCD DATE 89089
 PCN 13098A
 NSN
 P/N

CHART BEGINS 005

CHART ENDS 090 PREPARED BY Jim Euton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
005	005	○●D□▽	Insp VIS			○●D□▽	
010	010	○●D□▽	Insp FBI			○●D□▽	
020	020	○●D□▽	Insp VIS			○●D□▽	
030	030	○●D□▽	Insp DIM			○●D□▽	
031	031	●○D□▽	B/S			●○D□▽	
	033	●○D□▽				●○D□▽	
	035	●○D□▽				●○D□▽	
	036	●○D□▽				●○D□▽	
	040	●○D□▽				●○D□▽	
	041	●○D□▽				●○D□▽	
	042	●○D□▽				●○D□▽	
▽	050	●○D□▽	▽			●○D□▽	
031	055	●○D□▽	B/S			●○D□▽	
060	060	○●D□▽	Insp FBI			○●D□▽	
065	065	○●D□▽	Insp DIM			○●D□▽	
080	080	○●D□▽	ROUTE			○●D□▽	
090	090	○●D□▽	ROUTE			○●D□▽	
		○●D□▽				○●D□▽	
		○●D□▽				○●D□▽	
		○●D□▽				○●D□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
 ◊ TRANSPORTATION D DELAY

F16 JFS 13096A

Cleaning

SUBJECT Fuel Manifold FLOW PROCESS CHART & Inspection DATE 5/5/89

ITEM CODE PCN NSN PIN WCD TA 1131 WCD DATE 89089 13096A

CHART BEGINS 010 CHART ENDS 080 PREPARED BY Jim Eton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●○○□▽	B/S			○○○□▽	
020	020	●○○□▽	Sonic Cleaner			○○○□▽	
025	-	○○○□▽	24 Hr Cool			○○○□▽	
030	030	○○○□▽	Insp VIS			○○○□▽	
040	040	○○○□▽	Route B/S			○○○□▽	
	050	○○○□▽				○○○□▽	
	060	○○○□▽				○○○□▽	
	065	●○○□▽				○○○□▽	
	070	○○○□▽				○○○□▽	
040	080	○○○□▽	B/S			○○○□▽	
		○○○□▽				○○○□▽	
		○○○□▽				○○○□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
◊ TRANSPORTATION D DELAY

SUBJECT Start Fuel Nozzle FLOW PROCESS CHART Inspection DATE 6/5/59

ITEM CODE
PCN
NSN
PIN

WCD TALLSU WCD DATE 39029

130964

CHART BEGINS 010

CHART ENDS 040 PREPARED BY _____

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●◊◊◻▽	R/S			◊◊◊◻▽	
020	020	◊◊◊◻▽	Insp VIS			◊◊◊◻▽	
030	030	●◊◊◻▽	R/S			◊◊◊◻▽	
030	040	◊◊◊◻▽	R/S			◊◊◊◻▽	
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○ OPERATION ▽ STORAGE ◻ INSPECTION
◊ TRANSPORTATION ○ DELAY

F16 JFS

SUBJECT General F16 JFS 13096A **FLOW PROCESS CHART CLEANING** DATE 5/2/89

ITEM CODE
PCN
NSN
P/N

WCD GBC

WCD DATE 89152

13096A

CHART BEGINS 010

CHART ENDS 060

PREPARED BY Jim Eaton

OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION	OP. PROFILE OP. NO.	WCD OP. NO.	SYMBOLS	DESCRIPTION
010	010	●○○□▽	Remove Carbon			○○○□▽	
020	020	●○○□▽	Degrease			○○○□▽	
030	030	●○○□▽	Sonic Clean			○○○□▽	
040	040	●○○□▽	Water Rinse			○○○□▽	
050	050	●○○□▽	Grit Blast			○○○□▽	
060	060	○○●□▽	24 Hr Cool			○○○□▽	
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○ OPERATION ▽ STORAGE □ INSPECTION
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5.2 MODEL INPUT FILES

THE MODEL INPUT FILES FOR THIS RCC WERE SUBMITTED UNDER SEPARATE COVER AS AN ATTACHMENT TO MDMSC LETTER NKE-EO16-7622 DATED 19 JULY 1989.

MCDONNELL DOUGLAS

**McDonnell Douglas
Missile Systems Company**

**19 July 1989
NKE-E016-7622**

Subject: Contract F33600-88-D-0567, Technology Insertion Engineering Services, Submittal of Validation Minutes

**To: Department of the Air Force
Attention: Ms. J. Hoyt (PMRP)
Contracting Officer
Building 1, Area C
Wright Patterson Air Force Base, Ohio 45433-5320**

Enclosure: (1) Task Order 1, Process Characterization, Validation of RCCs MATPGB, MATPSI, and MATPSS at SA-ALC, 10-14 July 1989

- 1. For documentation purposes, McDonnell Missile Systems Company (MDMSC) herein submits the Enclosure (1) validation minutes.**
- 2. Please address any questions or requests for additional information to the undersigned at (314) 233-8724.**

D.W. Engelbart

**D. W. Engelbart
Senior Contracts Administrator
Advanced Programs**

**EC: Department of the Air Force
SA-ALC/MAHF
Attn: Mr. Pete Garza
Building 171
Kelly AFB, TX 78241**

**Department of the Air Force
HQ AFLC/MAQF
Attn: Mr. Doxie Cripe
Building 262, Area A
Wright Patterson AFB, OH 45433-5320**

KSS/0112-8

P.O. Box 516, Saint Louis, MO 63166-0516 (314) 232-0232 TELEX 44-857

SA-ALC/
MDMSC MODEL
VALIDATION MINUTES
10-14 JULY 1989

VALIDATION IN-BRIEFING
MONDAY, 10 JUL 89, 0845

<u>NAME</u>	<u>ORGANIZATION</u>	<u>PHONE NUMBER</u>
Brown, Trixie	HQ-AFLC/MAQF	(513)257-7114
Conway, Bill	SA-ALC/MAWFT	(512)925-7491
Gardner, Greg	MDMSC	(314)925-5396
Garza, Pete	SA-ALC/MAWFT	(512)925-7491
Gill, Edward	SA-ALC/MATEA	(512)925-8885
Gonzales, Dan	SA-ALC/MATEG	(512)925-4667
Holm, Allen	MDMSC	(314)925-5433
McFarland, Sadie	MDMSC	(314)925-5395
Pfeiffer, Lamar	SA-ALC/MAWSD	(512)925-4747
Stirgus, Connie	SA-ALC/MAWSD	(512)925-4747
Totten, Evan	MDMSC	(314)925-5440
Vroman, Scott	MDMSC/Soft Services	(314)925-5842

10 JULY 1989

- The meeting began at 0800. Greg Gardner briefed the UOOS 2.0 simulation process and model goals and objectives.
- Trixie Brown requested the group establish goals for acceptable variances for validation. Bill recommended $\pm 10\%$ on throughput and $\pm 15\%$ on flow time. These goals were accepted by the validation group for all RCCs.

PSS

- Historical flow for all PCNs was examined and found to be erroneous. The historical flow times did not include all WCDs that were applicable. This was corrected and all flow-time variances reduced.
- All parts were found to have acceptable throughputs except 13096A at 32% variance.
- Corrected historical flow times were substantially higher than model flow times. SA-ALC engineers and planners examined the historical data and reported that it was too high. The historical data contained considerable delay time where PCNs were held awaiting parts (clutch assemblies and bearings in particular) in 1988.
- Changes were made in the equipment required for two operations on PCN 13096A.
- Paint shop times were adjusted on 08004A and 08005A from 5 to 60 hours. A new run was conducted.

11 JULY 1989

PSS

- The changes made on 10 Jul corrected the throughput for 13096A. All throughputs were accepted. The increased flow caused an increase in flow time/queue time for several parts.
- SA-ALC engineers examined the equipment profile and felt that it was too detailed. The equipment with utilizations below 5% was deleted. A new run was conducted.

PGB

- The historical data for 13081A, 13094A, and 13095A (parent items) were examined and corrected as for PSS. Corrected flow times were substantially higher than model flow times. SA-ALC personnel examined the history and felt that the history contained substantial delay time for parts and should be much longer than model time.

- All throughputs were found to be acceptable except 13095A, which had a substantial queue for equipment. The machine utilization was changed and a new run conducted.
- Backshop flow times were modified to reflect historical flow vs. interview.

PSI

- No historical data was available. Trixie Brown and the SA-ALC engineers decided to validate using estimated flow time vs. model flow time and throughput. Operations were examined for each PCN and estimates provided.

12 JULY 1989

PSS

- The new run was examined. Equipment deletions had no significant effect on flow times. Queues were distributed across the operations, caused primarily by highly utilized manpower and equipment. RCC supervisory personnel were called in to review the outputs vs. real-world RCC conditions. The RCC personnel indicated that the queue distribution was generally representative of that found in the RCC itself. Examination of flow times was continued.

PSI

- PCNs 13081A/13094A/13096A are disassembled by MATPGB, then received by MATPSI for cleaning and inspection. These three parent assemblies were found to be unnecessary in modeling MATPSI as they are not actually present in this RCC. These PCNs seem to represent "as is" conditions to the best of ALC knowledge.
- RCC personnel were asked to compare conditions within the model and in the RCC.

PGB

- The new run was examined. All throughput problems were corrected and throughputs were accepted. Examination of flow times was continued.

13 JULY 1989

- A brainstorming session was conducted with participants from MDMSC and each RCC, facilitated by Greg Gardner. The factors and levels shown on Attachment (1) were selected by the group. These factors will be fit to a Taguchi orthogonal array and the appropriate experiments conducted by MDMSC beginning 17 Jul 89 in St. Louis.

PSS

- After examination of the most current run, SA-ALC personnel and AFLC representative agreed that all variances could be adequately explained. The model for this RCC seems to represent "as is" shop floor to the best of ALC knowledge.

PSI

- Given the minimal impact of equipment deletion in PSS it was decided not to delete low-utilization equipment in PSI. As a result of the brainstorming session, it was determined (by RCC personnel) that the queues indicated in the model were realistic. When parts actually begin to queue on the shop floor, a temporary second shift is added and/or workers are borrowed from another RCC.
- Backshop flow times were adjusted per SA-ALC personnel on several PCNs. A new run was conducted.

14 JULY 1989

PSI

- After examination of the most current run, SA-ALC personnel and AFLC representatives agreed that all variances could be adequately explained. The model for this RCC seems to represent "as is" conditions of the shop floor to the best of ALC knowledge. The problems with temporary additional manpower/2nd shift operations are heavily addressed in the Taguchi experimentation schedule for the week of 17 Jul 89.

ALL

- The SA-ALC, MDMSC, and HQ-AFLC validation team members agreed that the models for MATPSI, MATPSS, and MATPGB seem to represent the shop floor "as is" condition and are accepted for experimentation.

MDMSC MODEL VALIDATION MINUTES
 ATTACHMENT (1)
 PAGE 1 OF 3

SA BRAINSTORMING
 13 JULY 1989

TAGUCHI FACTORS	LEVELS		
	1	2	3
PSI	AS IS	SURGE	Ⓔ ¹
WORKLOAD	AS IS	IN-HOUSE	SPLIT ~25% IN-HOUSE ~75% BACK-SHOP
CHEM CLEAN	AS IS	+20 INSP TRAINED	+20 INSP UNTRAINED NEW @ 50%
INSP TNG	RANDOM FULL SHOP	LEVEL	AS IS EMPTY SHOP @ START ²

NOTES:

- 1 Ⓔ IS ACCELERATED INDUCTIONS, VALUE CURRENTLY UNSPECIFIED
- 2 THIS IS THE ACTUAL "AS IS" FOR PSI

MOMSC MODEL VALIDATION MINUTES
ATTACHMENT (1)
PAGE 2 OF 3

SA BRAINSTORMING
13 JULY 1989

<u>TAGUCHI FACTORS</u>	<u>LEVELS</u>		
	<u>1</u>	<u>2</u>	<u>3</u>
<u>PSS</u>			
WORKLOAD	AS IS	SURGE	Ⓔ ¹
TEST CAPABILITY	AS IS	3 SHIFT 7 DAY	EXTRA 12712AS 13096A TEST STAND
ASSEMBLER TNG	AS IS	+5 TRAINED	+5 UNTRAINED NEW @ 50%
INDUCTION	RANDOM FULL SHOP	LEVEL	AS IS EMPTY SHOP
TEST REJECTION	AS IS	0 ²	MID POINT

NOTES:

1 Ⓔ IS ACCELERATED INDUCTIONS, VALUE CURRENTLY UNSPECIFIED

2 NIL

MDMSC MODEL VALIDATION MINUTES
ATTACHMENT (1)
PAGE 3 OF 3

SA BRAINSTORMING
13 JULY 1989

TAGUCHI FACTORS	LEVELS		
	1	2	3
PGB			
WORKLOAD	AS IS	SURGE	Ⓔ ¹
TEST CAPACITY (1)	AS IS	3 SHIFT 7 DAY	+1 ADDED 13094 13095 TEST STAND
BALANCER TNG	AS IS	+3 TRAINED	+3 UNTRAINED NEW @ 50%
INDUCTIONS	RANDOM FULL SHOP	LEVEL	AS IS EMPTY SHOP
TEST REJECTION	AS IS	0 ²	MID POINT
TEST CAPACITY (2)	NEW EQUIP 1-SHIFT	x ³	x ³

NOTES:

- 1 Ⓔ IS ACCELERATED INDUCTIONS, VALUE CURRENTLY UNSPECIFIED
- 2 NIL
- 3 X - VALUE NOT KNOWN

7.0 COMPUTER SIMULATION

THE COMPUTER SIMULATION
ANALYSIS FILES FOR THIS RCC
WHERE SUBMITTED UNDER SERARATE
COVER AS AN ATTACHMENT TO
MOMSC LETTER NKE-EO16-7622
DATED 19 JULY 1989.

13 JULY 1989

- **A brainstorming session was conducted with participants from MDNSC and each RCC, facilitated by Greg Gardner. The factors and levels shown on Attachment (1) were selected by the group. These factors will be fit to a Taguchi orthogonal array and the appropriate experiments conducted by MDNSC beginning 17 Jul 89 in St. Louis.**

MMSC MODEL VALIDATION MINUTES
 ATTACHMENT (1)
 PAGE 1 OF 3

SA BRAINSTORMING
 13 JULY 1989

TAGUCHI FACTORS	LEVELS		
	1	2	3
PSI	AS IS	SURGE	ⓔ ¹
WORKLOAD	AS IS	IN-HOUSE	SPLIT ~25% IN-HOUSE ~75% BACK-SHOP
CHEM CLEAN	AS IS	+20 INSP TRAINED	+20 INSP UNTRAINED NEW @ 50%
INDUCTIONS	RANDOM FULL SHOP	LEVEL	AS IS EMPTY SHOP @ START ²

NOTES:

- 1 ⓔ IS ACCELERATED INDUCTIONS. VALUE CURRENTLY UNSPECIFIED
- 2 THIS IS THE ACTUAL "AS IS" FOR PSI

10.0 EXPERIMENTATION OF TAGUCHI FACTORS

THE TAGUCHI EXPERIMENTATION
WORK SHEETS AND ANALYSIS
DRAFTS FOR THIS RCC ARE
ENCLOSED IN THIS SECTION.

THE FINISHED DRAFT OF THIS DATA
IS PRESENTED IN THE "STATISTICAL
SYSTEM PERFORMANCE MEASURES"
SECTION FOR THIS RCC IN THE
CONTRACT SUMMARY REPORT.

THE PRINTOUTS FOR THE INDIVIDUAL
EXPERIMENTAL RUNS ARE BEING
FURNISHED SEPARATELY TO SA-ALC.

MATPST

PCN #08004A

TAGUCHI L9 ORTHOGONAL ARRAY CALCULATIONS

	FLOWTIME	THROUGHPUT
EXP# 1	1896	198
EXP# 2	1805	46
EXP# 3	2381	143
EXP# 4	1802	37
EXP# 5	4447	58
EXP# 6	5117	68
EXP# 7	3984	72
EXP# 8	2953	89
EXP# 9	1694	29

AVG FLOWTIME = 2897.667 AVG THROUGHPUT = 43.27486 %

EXPERIMENTAL RESULTS:

FACTOR A

LEVEL 1 : FLOWTIME EFFECT = -30.03566 %
 LEVEL 1 : THROUGHPUT EFFECT = 7.489386 db

LEVEL 2 : FLOWTIME EFFECT = 30.74888 %
 LEVEL 2 : THROUGHPUT EFFECT = -9.15063 db

LEVEL 3 : FLOWTIME EFFECT = -.7132204 %
 LEVEL 3 : THROUGHPUT EFFECT = -6.931472 db

FACTOR B

LEVEL 1 : FLOWTIME EFFECT = -11.63005 %
 LEVEL 1 : THROUGHPUT EFFECT = 1.546939 db

LEVEL 2 : FLOWTIME EFFECT = 5.889791 %
 LEVEL 2 : THROUGHPUT EFFECT = -6.69555 db

LEVEL 3 : FLOWTIME EFFECT = 5.740248 %
 LEVEL 3 : THROUGHPUT EFFECT = -3.184537 db

FACTOR C

LEVEL 1 : FLOWTIME EFFECT = 14.64396 %
 LEVEL 1 : THROUGHPUT EFFECT = 5.014799 db

LEVEL 2 : FLOWTIME EFFECT = -39.01991 %
 LEVEL 2 : THROUGHPUT EFFECT = -14.0837 db

LEVEL 3 : FLOWTIME EFFECT = 24.37593 %
 LEVEL 3 : THROUGHPUT EFFECT = -.8426036 db

FACTOR D

LEVEL 1 : FLOWTIME EFFECT = -7.546304 %
 LEVEL 1 : THROUGHPUT EFFECT = 0 db

LEVEL 2 : FLOWTIME EFFECT = 25.45726 %
 LEVEL 2 : THROUGHPUT EFFECT = -7.248959 db

LEVEL 3 : FLOWTIME EFFECT = -17.91096 %
 LEVEL 3 : THROUGHPUT EFFECT = -1.12399 db

MATPST

PCN #08005A

TAGUCHI L9 ORTHOGONAL ARRAY CALCULATIONS

	FLOWTIME	THROUGHPUT
EXP# 1	1725	94
EXP# 2	1893	21
EXP# 3	2207	69
EXP# 4	1662	16
EXP# 5	4623	26
EXP# 6	5161	34
EXP# 7	3238	9
EXP# 8	1708	3
EXP# 9	1743	13

AVG FLOWTIME = 2662.222 AVG THROUGHPUT = 29.32099 %

EXPERIMENTAL RESULTS:

FACTOR A

LEVEL 1 : FLOWTIME EFFECT = -27.06595 %
 LEVEL 1 : THROUGHPUT EFFECT = 2.732931 db

LEVEL 2 : FLOWTIME EFFECT = 43.31386 %
 LEVEL 2 : THROUGHPUT EFFECT = -11.82695 db

LEVEL 3 : FLOWTIME EFFECT = -16.24791 %
 LEVEL 3 : THROUGHPUT EFFECT = -24.81568 db

FACTOR B

LEVEL 1 : FLOWTIME EFFECT = -17.04925 %
 LEVEL 1 : THROUGHPUT EFFECT = -5.438864 db

LEVEL 2 : FLOWTIME EFFECT = 2.971619 %
 LEVEL 2 : THROUGHPUT EFFECT = -17.01105 db

LEVEL 3 : FLOWTIME EFFECT = 14.07763 %
 LEVEL 3 : THROUGHPUT EFFECT = -5.839478 db

FACTOR C

LEVEL 1 : FLOWTIME EFFECT = 7.604346 %
 LEVEL 1 : THROUGHPUT EFFECT = -3.874928 db

LEVEL 2 : FLOWTIME EFFECT = -33.66444 %
 LEVEL 2 : THROUGHPUT EFFECT = -17.01105 db

LEVEL 3 : FLOWTIME EFFECT = 26.0601 %
 LEVEL 3 : THROUGHPUT EFFECT = -7.492364 db

FACTOR D

LEVEL 1 : FLOWTIME EFFECT = 1.306346 %
 LEVEL 1 : THROUGHPUT EFFECT = -3.619243 db

LEVEL 2 : FLOWTIME EFFECT = 28.86478 %
 LEVEL 2 : THROUGHPUT EFFECT = -14.01799 db

LEVEL 3 : FLOWTIME EFFECT = -30.17112 %
 LEVEL 3 : THROUGHPUT EFFECT = -9.864949 db

MATPSI

PCN #08006A

TAGUCHI L9 ORTHOGONAL ARRAY CALCULATIONS

	FLOWTIME	THROUGHPUT
EXP# 1	3157	248
EXP# 2	2818	72
EXP# 3	4108	127
EXP# 4	2987	39
EXP# 5	4591	45
EXP# 6	6619	39
EXP# 7	4287	18
EXP# 8	4245	10
EXP# 9	3172	34

AVG FLOWTIME = 3998.222 AVG THROUGHPUT = 21.60684 %

EXPERIMENTAL RESULTS:

FACTOR A

LEVEL 1 : FLOWTIME EFFECT = -15.93764 %
 LEVEL 1 : THROUGHPUT EFFECT = -1.665377 db

LEVEL 2 : FLOWTIME EFFECT = 18.36095 %
 LEVEL 2 : THROUGHPUT EFFECT = -19.35402 db

LEVEL 3 : FLOWTIME EFFECT = -2.4233 %
 LEVEL 3 : THROUGHPUT EFFECT = -26.89602 db

FACTOR B

LEVEL 1 : FLOWTIME EFFECT = -13.03635 %
 LEVEL 1 : THROUGHPUT EFFECT = -7.86966 db

LEVEL 2 : FLOWTIME EFFECT = -2.840148 %
 LEVEL 2 : THROUGHPUT EFFECT = -18.98694 db

LEVEL 3 : FLOWTIME EFFECT = 15.8765 %
 LEVEL 3 : THROUGHPUT EFFECT = -13.54546 db

FACTOR C

LEVEL 1 : FLOWTIME EFFECT = 16.89362 %
 LEVEL 1 : THROUGHPUT EFFECT = -8.254151 db

LEVEL 2 : FLOWTIME EFFECT = -25.15841 %
 LEVEL 2 : THROUGHPUT EFFECT = -17.44692 db

LEVEL 3 : FLOWTIME EFFECT = 8.264782 %
 LEVEL 3 : THROUGHPUT EFFECT = -14.1866 db

FACTOR D

LEVEL 1 : FLOWTIME EFFECT = -8.959536 %
 LEVEL 1 : THROUGHPUT EFFECT = -6.839304 db

LEVEL 2 : FLOWTIME EFFECT = 14.41752 %
 LEVEL 2 : THROUGHPUT EFFECT = -18.80707 db

LEVEL 3 : FLOWTIME EFFECT = -5.45798 %
 LEVEL 3 : THROUGHPUT EFFECT = -15.12877 db

PCN #08007A

TAGUCHI L9 ORTHOGONAL ARRAY CALCULATIONS

	FLOWTIME	THROUGHPUT
EXP# 1	765	371
EXP# 2	1905	76
EXP# 3	1274	294
EXP# 4	1899	62
EXP# 5	2350	211
EXP# 6	2983	277
EXP# 7	2068	194
EXP# 8	1820	207
EXP# 9	1849	49

AVG FLOWTIME = 1879.222 AVG THROUGHPUT = 48.48232 %

EXPERIMENTAL RESULTS:

FACTOR A

LEVEL 1 : FLOWTIME EFFECT = -30.04198 %
 LEVEL 1 : THROUGHPUT EFFECT = 4.85508 db

LEVEL 2 : FLOWTIME EFFECT = 28.28003 %
 LEVEL 2 : THROUGHPUT EFFECT = -1.624281 db

LEVEL 3 : FLOWTIME EFFECT = 1.761963 %
 LEVEL 3 : THROUGHPUT EFFECT = -5.068176 db

FACTOR B

LEVEL 1 : FLOWTIME EFFECT = -16.06456 %
 LEVEL 1 : THROUGHPUT EFFECT = .9531036 db

LEVEL 2 : FLOWTIME EFFECT = 7.75735 %
 LEVEL 2 : THROUGHPUT EFFECT = -3.528214 db

LEVEL 3 : FLOWTIME EFFECT = 8.307225 %
 LEVEL 3 : THROUGHPUT EFFECT = .7187717 db

FACTOR C

LEVEL 1 : FLOWTIME EFFECT = -1.235733 %
 LEVEL 1 : THROUGHPUT EFFECT = 9.162909 db

LEVEL 2 : FLOWTIME EFFECT = .2719852 %
 LEVEL 2 : THROUGHPUT EFFECT = -16.86597 db

LEVEL 3 : FLOWTIME EFFECT = .9637408 %
 LEVEL 3 : THROUGHPUT EFFECT = 3.390505 db

FACTOR D

LEVEL 1 : FLOWTIME EFFECT = -11.94939 %
 LEVEL 1 : THROUGHPUT EFFECT = 1.087118 db

LEVEL 2 : FLOWTIME EFFECT = 23.38439 %
 LEVEL 2 : THROUGHPUT EFFECT = -1.725236 db

LEVEL 3 : FLOWTIME EFFECT = -11.43499 %
 LEVEL 3 : THROUGHPUT EFFECT = -1.187692 db

MATPSI

PCN #04542A

TAGUCHI L9 ORTHOGONAL ARRAY CALCULATIONS

	FLOWTIME	THROUGHPUT
EXP# 1	813	370
EXP# 2	571	302
EXP# 3	644	376
EXP# 4	572	235
EXP# 5	1232	296
EXP# 6	2003	311
EXP# 7	1958	451
EXP# 8	1708	540
EXP# 9	596	188

AVG FLOWTIME = 1121.889 AVG THROUGHPUT = 80.23529 %

EXPERIMENTAL RESULTS:

FACTOR A

LEVEL 1 : FLOWTIME EFFECT = -39.74448 %
 LEVEL 1 : THROUGHPUT EFFECT = 15.29689 db

LEVEL 2 : FLOWTIME EFFECT = 13.1128 %
 LEVEL 2 : THROUGHPUT EFFECT = 6.65042 db

LEVEL 3 : FLOWTIME EFFECT = 26.63167 %
 LEVEL 3 : THROUGHPUT EFFECT = 25.08074 db

FACTOR B

LEVEL 1 : FLOWTIME EFFECT = -.6734661 %
 LEVEL 1 : THROUGHPUT EFFECT = 15.73172 db

LEVEL 2 : FLOWTIME EFFECT = 4.318115 %
 LEVEL 2 : THROUGHPUT EFFECT = 21.17047 db

LEVEL 3 : FLOWTIME EFFECT = -3.644649 %
 LEVEL 3 : THROUGHPUT EFFECT = 7.827592 db

FACTOR C

LEVEL 1 : FLOWTIME EFFECT = 34.41616 %
 LEVEL 1 : THROUGHPUT EFFECT = 31.18442 db

LEVEL 2 : FLOWTIME EFFECT = -48.33119 %
 LEVEL 2 : THROUGHPUT EFFECT = 2.762536 db

LEVEL 3 : FLOWTIME EFFECT = 13.91502 %
 LEVEL 3 : THROUGHPUT EFFECT = 19.99879 db

FACTOR D

LEVEL 1 : FLOWTIME EFFECT = -21.53115 %
 LEVEL 1 : THROUGHPUT EFFECT = 7.072984 db

LEVEL 2 : FLOWTIME EFFECT = 34.65385 %
 LEVEL 2 : THROUGHPUT EFFECT = 16.17933 db

LEVEL 3 : FLOWTIME EFFECT = -13.12271 %
 LEVEL 3 : THROUGHPUT EFFECT = 22.28105 db

MATPSI

PCN #10598A

TAGUCHI L9 ORTHOGONAL ARRAY CALCULATIONS

	FLOWTIME	THROUGHPUT
EXP# 1	671	208
EXP# 2	515	87
EXP# 3	467	221
EXP# 4	545	126
EXP# 5	817	142
EXP# 6	1334	142
EXP# 7	1314	106
EXP# 8	1164	101
EXP# 9	604	89

AVG FLOWTIME = 825.6667 AVG THROUGHPUT = 57.77778 %

EXPERIMENTAL RESULTS:

FACTOR A

LEVEL 1 : FLOWTIME EFFECT = -33.26605 %
 LEVEL 1 : THROUGHPUT EFFECT = 10.0436 db

LEVEL 2 : FLOWTIME EFFECT = 8.84134 %
 LEVEL 2 : THROUGHPUT EFFECT = 3.29182 db

LEVEL 3 : FLOWTIME EFFECT = 24.42471 %
 LEVEL 3 : THROUGHPUT EFFECT = -3.233557 db

FACTOR B

LEVEL 1 : FLOWTIME EFFECT = 2.13968 %
 LEVEL 1 : THROUGHPUT EFFECT = 5.070451 db

LEVEL 2 : FLOWTIME EFFECT = .7670545 %
 LEVEL 2 : THROUGHPUT EFFECT = -1.278332 db

LEVEL 3 : FLOWTIME EFFECT = -2.906742 %
 LEVEL 3 : THROUGHPUT EFFECT = 5.802927 db

FACTOR C

LEVEL 1 : FLOWTIME EFFECT = 27.93702 %
 LEVEL 1 : THROUGHPUT EFFECT = 5.74133 db

LEVEL 2 : FLOWTIME EFFECT = -32.82196 %
 LEVEL 2 : THROUGHPUT EFFECT = -2.885096 db

LEVEL 3 : FLOWTIME EFFECT = 4.884939 %
 LEVEL 3 : THROUGHPUT EFFECT = 6.867712 db

FACTOR D

LEVEL 1 : FLOWTIME EFFECT = -15.543 %
 LEVEL 1 : THROUGHPUT EFFECT = 5.010031 db

LEVEL 2 : FLOWTIME EFFECT = 27.69479 %
 LEVEL 2 : THROUGHPUT EFFECT = -.9937248 db

LEVEL 3 : FLOWTIME EFFECT = -12.1518 %
 LEVEL 3 : THROUGHPUT EFFECT = 5.557172 db

MATPSI

PCN #10718A

TAGUCHI L9 ORTHOGONAL ARRAY CALCULATIONS

	FLOWTIME	THROUGHPUT
EXP# 1	902	235
EXP# 2	685	142
EXP# 3	886	227
EXP# 4	760	98
EXP# 5	970	204
EXP# 6	1551	202
EXP# 7	2327	144
EXP# 8	1546	155
EXP# 9	811	68

AVG FLOWTIME = 1159.778 AVG THROUGHPUT = 63.52282 %

EXPERIMENTAL RESULTS:

FACTOR A

LEVEL 1 : FLOWTIME EFFECT = -28.92317 %
 LEVEL 1 : THROUGHPUT EFFECT = 12.67776 db

LEVEL 2 : FLOWTIME EFFECT = -5.700334 %
 LEVEL 2 : THROUGHPUT EFFECT = 6.241544 db

LEVEL 3 : FLOWTIME EFFECT = 34.62349 %
 LEVEL 3 : THROUGHPUT EFFECT = -1.034512 db

FACTOR B

LEVEL 1 : FLOWTIME EFFECT = 14.64839 %
 LEVEL 1 : THROUGHPUT EFFECT = 4.737844 db

LEVEL 2 : FLOWTIME EFFECT = -7.999622 %
 LEVEL 2 : THROUGHPUT EFFECT = 6.071344 db

LEVEL 3 : FLOWTIME EFFECT = -6.648791 %
 LEVEL 3 : THROUGHPUT EFFECT = 5.845726 db

FACTOR C

LEVEL 1 : FLOWTIME EFFECT = 14.93581 %
 LEVEL 1 : THROUGHPUT EFFECT = 11.795 db

LEVEL 2 : FLOWTIME EFFECT = -35.16 %
 LEVEL 2 : THROUGHPUT EFFECT = -4.140859 db

LEVEL 3 : FLOWTIME EFFECT = 20.22418 %
 LEVEL 3 : THROUGHPUT EFFECT = 10.61065 db

FACTOR D

LEVEL 1 : FLOWTIME EFFECT = -22.88753 %
 LEVEL 1 : THROUGHPUT EFFECT = 6.412625 db

LEVEL 2 : FLOWTIME EFFECT = 31.14581 %
 LEVEL 2 : THROUGHPUT EFFECT = 5.343237 db

LEVEL 3 : FLOWTIME EFFECT = -8.258291 %
 LEVEL 3 : THROUGHPUT EFFECT = 4.902065 db

MATPSI

PCN #12712A

TAGUCHI L9 ORTHOGONAL ARRAY CALCULATIONS

	FLOWTIME	THROUGHPUT
EXP# 1	1230	123
EXP# 2	606	138
EXP# 3	2198	91
EXP# 4	633	95
EXP# 5	2965	12
EXP# 6	4360	8
EXP# 7	2294	32
EXP# 8	2121	41
EXP# 9	638	88

AVG FLOWTIME = 1893.889 AVG THROUGHPUT = 48.45679 %

EXPERIMENTAL RESULTS:

FACTOR A

LEVEL 1 : FLOWTIME EFFECT = -28.99971 %
 LEVEL 1 : THROUGHPUT EFFECT = 14.81605 db

LEVEL 2 : FLOWTIME EFFECT = 40.06454 %
 LEVEL 2 : THROUGHPUT EFFECT = -10.1397 db

LEVEL 3 : FLOWTIME EFFECT = -11.06483 %
 LEVEL 3 : THROUGHPUT EFFECT = -5.207144 db

FACTOR B

LEVEL 1 : FLOWTIME EFFECT = -26.83485 %
 LEVEL 1 : THROUGHPUT EFFECT = 3.174542 db

LEVEL 2 : FLOWTIME EFFECT = .1818722 %
 LEVEL 2 : THROUGHPUT EFFECT = -2.325234 db

LEVEL 3 : FLOWTIME EFFECT = 26.65298 %
 LEVEL 3 : THROUGHPUT EFFECT = -2.701495 db

FACTOR C

LEVEL 1 : FLOWTIME EFFECT = 35.71721 %
 LEVEL 1 : THROUGHPUT EFFECT = -4.131871 db

LEVEL 2 : FLOWTIME EFFECT = -66.96391 %
 LEVEL 2 : THROUGHPUT EFFECT = 10.61911 db

LEVEL 3 : FLOWTIME EFFECT = 31.2467 %
 LEVEL 3 : THROUGHPUT EFFECT = -7.884573 db

FACTOR D

LEVEL 1 : FLOWTIME EFFECT = -14.93693 %
 LEVEL 1 : THROUGHPUT EFFECT = .6483751 db

LEVEL 2 : FLOWTIME EFFECT = 27.77941 %
 LEVEL 2 : THROUGHPUT EFFECT = -3.555508 db

LEVEL 3 : FLOWTIME EFFECT = -12.84248 %
 LEVEL 3 : THROUGHPUT EFFECT = 1.019399 db

MATPSI

JN #13081A

TAGUCHI L9 ORTHOGONAL ARRAY CALCULATIONS

	FLOWTIME	THROUGHPUT
EXP# 1	429	77
EXP# 2	912	38
EXP# 3	570	66
EXP# 4	810	41
EXP# 5	785	88
EXP# 6	1116	104
EXP# 7	2078	64
EXP# 8	1361	59
EXP# 9	719	28

AVG FLOWTIME = 975.5556 AVG THROUGHPUT = 58.67082 %

EXPERIMENTAL RESULTS:

FACTOR A

LEVEL 1 : FLOWTIME EFFECT = -34.70387 %
 LEVEL 1 : THROUGHPUT EFFECT = 2.568546 db

LEVEL 2 : FLOWTIME EFFECT = -7.369017 %
 LEVEL 2 : THROUGHPUT EFFECT = 9.737016 db

LEVEL 3 : FLOWTIME EFFECT = 42.0729 %
 LEVEL 3 : THROUGHPUT EFFECT = -1.185185 db

FACTOR B

LEVEL 1 : FLOWTIME EFFECT = 13.33713 %
 LEVEL 1 : THROUGHPUT EFFECT = 2.695328 db

LEVEL 2 : FLOWTIME EFFECT = 4.487471 %
 LEVEL 2 : THROUGHPUT EFFECT = 3.077011 db

LEVEL 3 : FLOWTIME EFFECT = -17.8246 %
 LEVEL 3 : THROUGHPUT EFFECT = 4.760828 db

FACTOR C

LEVEL 1 : FLOWTIME EFFECT = -.7061469 %
 LEVEL 1 : THROUGHPUT EFFECT = 10.8619 db

LEVEL 2 : FLOWTIME EFFECT = -16.59453 %
 LEVEL 2 : THROUGHPUT EFFECT = -6.931471 db

LEVEL 3 : FLOWTIME EFFECT = 17.30069 %
 LEVEL 3 : THROUGHPUT EFFECT = 7.497661 db

FACTOR D

LEVEL 1 : FLOWTIME EFFECT = -33.95216 %
 LEVEL 1 : THROUGHPUT EFFECT = 4.1066 db

LEVEL 2 : FLOWTIME EFFECT = 40.29613 %
 LEVEL 2 : THROUGHPUT EFFECT = 5.829439 db

LEVEL 3 : FLOWTIME EFFECT = -6.34396 %
 LEVEL 3 : THROUGHPUT EFFECT = .6856277 db

MATPSI

PCN 413094A

TAGUCHI L9 ORTHOGONAL ARRAY CALCULATIONS

	FLOWTIME	THROUGHPUT
EXP# 1	791	188
EXP# 2	1108	62
EXP# 3	761	161
EXP# 4	1099	54
EXP# 5	1718	135
EXP# 6	1960	158
EXP# 7	2142	120
EXP# 8	1850	117
EXP# 9	1139	33

AVG FLOWTIME = 1396.445 AVG THROUGHPUT = 61.74174 %

EXPERIMENTAL RESULTS:

FACTOR A

LEVEL 1 : FLOWTIME EFFECT = -36.50541 %
 LEVEL 1 : THROUGHPUT EFFECT = 10.4878 db

LEVEL 2 : FLOWTIME EFFECT = 14.02769 %
 LEVEL 2 : THROUGHPUT EFFECT = 5.117865 db

LEVEL 3 : FLOWTIME EFFECT = 22.47772 %
 LEVEL 3 : THROUGHPUT EFFECT = -5.5406718 db

FACTOR B

LEVEL 1 : FLOWTIME EFFECT = -3.755571 %
 LEVEL 1 : THROUGHPUT EFFECT = 6.289542 db

LEVEL 2 : FLOWTIME EFFECT = 11.6168 %
 LEVEL 2 : THROUGHPUT EFFECT = 2.64596 db

LEVEL 3 : FLOWTIME EFFECT = -7.861239 %
 LEVEL 3 : THROUGHPUT EFFECT = 5.504253 db

FACTOR C

LEVEL 1 : FLOWTIME EFFECT = 9.826539 %
 LEVEL 1 : THROUGHPUT EFFECT = 16.15938 db

LEVEL 2 : FLOWTIME EFFECT = -20.13049 %
 LEVEL 2 : THROUGHPUT EFFECT = -10.02407 db

LEVEL 3 : FLOWTIME EFFECT = 10.30395 %
 LEVEL 3 : THROUGHPUT EFFECT = 10.96211 db

FACTOR D

LEVEL 1 : FLOWTIME EFFECT = -12.92171 %
 LEVEL 1 : THROUGHPUT EFFECT = 5.81626 db

LEVEL 2 : FLOWTIME EFFECT = 24.36346 %
 LEVEL 2 : THROUGHPUT EFFECT = 4.583077 db

LEVEL 3 : FLOWTIME EFFECT = -11.44176 %
 LEVEL 3 : THROUGHPUT EFFECT = 3.979632 db

MATPSI

PCN #13095A

TAGUCHI L9 ORTHOGONAL ARRAY CALCULATIONS

	FLOWTIME	THROUGHPUT
EXP# 1	626	210
EXP# 2	966	98
EXP# 3	608	195
EXP# 4	933	88
EXP# 5	1718	148
EXP# 6	2083	168
EXP# 7	2184	125
EXP# 8	1507	114
EXP# 9	895	68

AVG FLOWTIME = 1280 AVG THROUGHPUT = 63.62683 %

EXPERIMENTAL RESULTS:

FACTOR A

LEVEL 1 : FLOWTIME EFFECT = -42.70834 %
 LEVEL 1 : THROUGHPUT EFFECT = 13.30241 db

LEVEL 2 : FLOWTIME EFFECT = 23.28125 %
 LEVEL 2 : THROUGHPUT EFFECT = 5.546777 db

LEVEL 3 : FLOWTIME EFFECT = 19.42708 %
 LEVEL 3 : THROUGHPUT EFFECT = -.6920992 db

FACTOR B

LEVEL 1 : FLOWTIME EFFECT = -2.526045 %
 LEVEL 1 : THROUGHPUT EFFECT = 6.860801 db

LEVEL 2 : FLOWTIME EFFECT = 9.140625 %
 LEVEL 2 : THROUGHPUT EFFECT = 2.657031 db

LEVEL 3 : FLOWTIME EFFECT = -6.61458 %
 LEVEL 3 : THROUGHPUT EFFECT = 7.430982 db

FACTOR C

LEVEL 1 : FLOWTIME EFFECT = 9.79167 %
 LEVEL 1 : THROUGHPUT EFFECT = 12.28666 db

LEVEL 2 : FLOWTIME EFFECT = -27.23959 %
 LEVEL 2 : THROUGHPUT EFFECT = -4.080863 db

LEVEL 3 : FLOWTIME EFFECT = 17.44792 %
 LEVEL 3 : THROUGHPUT EFFECT = 10.24504 db

FACTOR D

LEVEL 1 : FLOWTIME EFFECT = -15.65104 %
 LEVEL 1 : THROUGHPUT EFFECT = 7.073317 db

LEVEL 2 : FLOWTIME EFFECT = 36.27605 %
 LEVEL 2 : THROUGHPUT EFFECT = 4.674492 db

LEVEL 3 : FLOWTIME EFFECT = -20.625 %
 LEVEL 3 : THROUGHPUT EFFECT = 5.074727 db

MATPSI

PCN #13096A

TAGUCHI L9 ORTHOGONAL ARRAY CALCULATIONS

	FLOWTIME	THROUGHPUT
EXP# 1	1142	151
EXP# 2	1091	76
EXP# 3	1203	126
EXP# 4	1018	33
EXP# 5	2539	74
EXP# 6	2587	88
EXP# 7	2292	65
EXP# 8	1887	100
EXP# 9	1063	45

AVG FLOWTIME = 1646.889 AVG THROUGHPUT = 40.49145 %

EXPERIMENTAL RESULTS:

FACTOR A

LEVEL 1 : FLOWTIME EFFECT = -30.45473 %
 LEVEL 1 : THROUGHPUT EFFECT = 2.643492 db

LEVEL 2 : FLOWTIME EFFECT = 24.35569 %
 LEVEL 2 : THROUGHPUT EFFECT = -7.884573 db

LEVEL 3 : FLOWTIME EFFECT = 6.099043 %
 LEVEL 3 : THROUGHPUT EFFECT = -6.787586 db

FACTOR B

LEVEL 1 : FLOWTIME EFFECT = -9.890704 %
 LEVEL 1 : THROUGHPUT EFFECT = -4.094731 db

LEVEL 2 : FLOWTIME EFFECT = 11.66509 %
 LEVEL 2 : THROUGHPUT EFFECT = -4.027949 db

LEVEL 3 : FLOWTIME EFFECT = -1.774394 %
 LEVEL 3 : THROUGHPUT EFFECT = -3.430693 db

FACTOR C

LEVEL 1 : FLOWTIME EFFECT = 13.66887 %
 LEVEL 1 : THROUGHPUT EFFECT = 1.735109 db

LEVEL 2 : FLOWTIME EFFECT = -35.79814 %
 LEVEL 2 : THROUGHPUT EFFECT = -11.1578 db

LEVEL 3 : FLOWTIME EFFECT = 22.12927 %
 LEVEL 3 : THROUGHPUT EFFECT = -3.035926 db

FACTOR D

LEVEL 1 : FLOWTIME EFFECT = -3.980569 %
 LEVEL 1 : THROUGHPUT EFFECT = -2.70875 db

LEVEL 2 : FLOWTIME EFFECT = 20.83389 %
 LEVEL 2 : THROUGHPUT EFFECT = -5.451637 db

LEVEL 3 : FLOWTIME EFFECT = -16.85333 %
 LEVEL 3 : THROUGHPUT EFFECT = -3.430693 db

TECHNOLOGY INSERTION

MATPSI

TAGUCHI FACTORS	LEVELS		
	1	2	3
A WORKLOAD	FY88	130% FY88	SURGE
B INSPECTORS	AS-IS	+20 TRAINED	+20 UNTRAINED
C INDUCTIONS	RANDOM INDUCTIONS INTO FULL SHOP	INDUCTIONS LEVELED	LEVEL INDUCTIONS: WIP = 25% OF SMALLEST FY88 QTRs INDUCTIONS
D RANDOMNESS (SEED)	SEED 1	SEED 2	SEED 3

AFLC/MDMSC

PSI TAGUCITZ EXP.

L9

WORK LOAD =

CHEM CLEAN 0.15/RES AS IS / INSURANCE / TNG RES / SURGE
 INDUCTION SCHED. WHITE
 RNDM SEED

→ 1	AS IS	AS IS	RANDOM FULL STOP	SEED 1
2	AS IS	+20 TNEO	LEVEL	SEED 2
→ 3	AS IS	+20 50% T	RANDOM EMPTY STOP	SEED 3
4	IN HOUSE	AS IS	LEVEL	SEED 3
5	IN HOUSE	+20 TNEO	RNDM	SEED 1
6	IN HOUSE	+20 50% T	EMPTY	SEED 2
7	SPLIT	AS IS	RNDM FULL	SEED 2
8	SPLIT	+20 TNEO	EMPTY	SEED 3
9	SPLIT	+20 50% T	RNDM FULL	SEED 1

CHEM CLEAN - IN HOUSE = Eliminate CLN BS + Add 5 hrs + CLN
 (2 QTRS) SPLIT = Add 1 hr + CLN / TRIM BS 25%
 MAEINC / MAEPAIC

INOP TNG - +20 TNEO = Add 20 Inspectors
 (2 QTRS) +20 50% T = Add 20 ALT Inspect v 50% Avail.

INDUCTION - RANDOM FULL STOP = AS IS
 (2 QTRS) LEVEL = Set MWIP TO
 RANDOM Empty STOP = SET 15% TO 0

MATPSI L9 TAGUCHI ORTHOGONAL ARRAY
TABLE 8.6.2-1

EXP #	A	B	C	D
1	WORKLOAD FY88 BASELINE	INSPECTION AS IS	INDUCTIONS RANDOM FULL SHOP	NOISE RANDOM SEED 1
2	FY88 BASELINE	+20 TRAINED	LEVEL	RANDOM SEED 2
3	FY88 BASELINE	+20 UNTRAINED	RANDOM EMPTY SHOP	RANDOM SEED 3
4	130% OF BASE	AS IS	LEVEL	RANDOM SEED 3
5	130% OF BASE	+20 TRAINED	RANDOM EMPTY SHOP	RANDOM SEED 1
6	130% OF BASE	+20 UNTRAINED	RANDOM FULL SHOP	RANDOM SEED 2
7	SURGE	AS IS	RANDOM EMPTY SHOP	RANDOM SEED 2
8	SURGE	+20 TRAINED	RANDOM FULL SHOP	RANDOM SEED 3
9	SURGE	+20 UNTRAINED	LEVEL	RANDOM SEED 1

Run #	QTY	Day	0800A	0800SA	08006A	08007A	08008A	10598A	10718A	12712A	13081A	13094A	13095A	REN H.
1	4	91	1895.90	1724.89	3157.89	765.01	812.73	671.31	901.92	1229.72	1191.74	489.47	626.16	10920
2	2	91	1805.35	1893.12	2817.60	1905.30	571.14	514.96	689.81	605.52	1090.50	1108.20	966.30	6552
3	4	0	2380.62	2206.47	4108.60	1274.29	643.79	467.21	885.72	2198.26	1202.76	760.76	607.99	8736
4	4	91	1801.58	1601.84	2986.75	1899.35	572.19	544.82	759.70	633.96	1017.62	1098.60	932.99	10920
5	4	0	4447.06	4622.73	4591.02	1920.40	306.35	164.33	127.17	123.27	43.13	70.27	114.95	9525

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MATPSI by TAGUCHI ORTHOGONAL ARRAY
THROUGHPUT EXPERIMENTATION RESULTS
TABLE 8.6.2-2

SWITCH
COUNT



GIRTS EXP #	A WORKLOAD	B INSTRUMENTS	C INDICATORS	D NOISE	THROUGHPUT		
					AVG	BEST	WORST
4	FY88 BASELINE	AS 15	RANDOM FULL SCAN	RANDOM SEED 1	88%	08004A 104%	13081A 72%
2	FY88 BASELINE	+20 TRAINED	LEVEL	RANDOM SEED 2	44%	12712A 96%	08007A 19%
4	FY88 BASELINE	+20 UNTRAINED	RANDOM EMPTY SCAN	RANDOM SEED 3	75%	13095A 92%	08006A 39%
4	130% OF BASE	AS 15	LEVEL	RANDOM SEED 3	34%	12712A 69%	08005A 15%
4	130% OF BASE	+20 TRAINED	RANDOM EMPTY SCAN	RANDOM SEED 1	52%	13081A 83%	12712A 8%

8-26-89

MATPSI

PCN	BEST FACTOR/LEVEL				WORST FACTOR/LEVEL			
	A	B	C	D				
08004A	A1	B1	C1	D1	A2	B2	C2	D2
08005A	A1	B1	C1	D1	A2	B2	C2	D2
08006A	A1	B1	C1	D1	A2	B2	C2	D2
08007A	A1	B1	C1	D1	A3	B2	C2	D2
09542A	A1	B2	C1	D3	A3	B3	C2	D1
10598A	A1	B3	C3	D3	A3	B2	C2	D2
10718A	A1	B3	C1	D1	A3	B1	C3	D2
12712A	A1	B1	C2	D1	A2	B3	C3	D2
13096A	A1	B1	C1	D3	A2	B2	C2	D2
13081A	A2	B3	C1	D1	A3	B1	C2	D2
13094A	A1	B1	C1	D1	A3	B2	C2	D2
13095A	A1	B1	C1	D1	A3	B2	C2	D2

TAGUCHI EXPERIMENT ANALYSIS

ALC : SA

RCC : MATPSI

PCN: 08004A

L9 ARRAY

12-Sep-89

TAG1

RUN NO.	FACTOR				FLOW TIME RESULT	TOTAL		NET		FACTOR	FLOW TIME		THRU PUT	
	A LEVEL	B LEVEL	C LEVEL	D LEVEL		THRU PUT RESULT	INDUCTED FOR RUN	THRU PUT FOR RUN	EFFECT		PERCENT	EFFECT	PERCENT	
1	1	1	1	1	1896	1.04	190	198	A 1	2927.3	30.03	0.68	55.61	
2	1	2	2	2	1805	0.24	103	25	A 2	3788.5	-30.75	0.29	-34.34	
3	1	3	3	3	2381	0.73	190	143	A 3	2876.9	0.71	0.34	-21.26	
4	2	1	2	3	1802	0.19	247	48	B 1	2560.4	11.63	0.54	24.00	
5	2	2	3	1	4447	0.31	248	76	B 2	3068.5	-5.90	0.35	-20.88	
6	2	3	1	2	5117	0.36	248	89	B 3	3063.8	-5.74	0.42	-3.13	
7	3	1	3	2	3984	0.39	297	115	C 1	3321.9	-14.65	0.63	44.18	
8	3	2	1	3	2953	0.49	152	74	C 2	1766.9	39.02	0.20	-54.64	
9	3	3	2	1	1694	0.16	153	24	C 3	3603.8	-24.38	0.48	10.46	
									D 1	2678.9	7.55	0.50	14.98	
									D 2	3635.4	-25.46	0.33	-24.48	
									D 3	2378.4	17.92	0.48	9.51	
					TOTAL	26078	3.93	1928	792					
					AVERAGE	2897.6	0.44	203.1	98.0		2897.6	0.00	0.44	0.00
					MAXIMUM	5116.87	1.04	297	198		3788.5	39.02	0.68	55.61
					MINIMUM	1693.77	0.16	103	24		1766.9	-30.75	0.20	-54.64

TAGUCHI EXPERIMENT ANALYSIS

ALC : SA

RCC : MATPSI

PCN: 08005A

L9 ARRAY

12-Sep-89

PSI08005

RUN NO.	FACTOR				FLOW TIME RESULT	TOTAL		NET		FACTOR	FLOW TIME		THRU PUT	
	A LEVEL	B LEVEL	C LEVEL	D LEVEL		THRU PUT RESULT FOR RUN	INDUCED FOR RUN	THRU PUT FOR RUN	EFFECT		PERCENT	EFFECT	PERCENT	
1	1	1	1	1	1725	0.87	108	94	A 1	1941.5	27.07	0.57	94.39	
2	1	2	2	2	1893	0.19	42	8	A 2	3815.3	-43.32	0.22	-22.93	
3	1	3	3	3	2206	0.54	108	69	A 3	2229.4	16.25	0.08	-71.46	
4	2	1	2	3	1662	0.15	143	21	B 1	2208.1	17.05	0.37	26.53	
5	2	2	3	1	4623	0.23	148	34	B 2	2741.3	-2.98	0.15	-48.85	
6	2	3	1	2	5161	0.30	148	44	B 3	3036.8	-14.08	0.36	22.32	
7	3	1	3	2	3238	0.09	157	14	C 1	2864.8	-7.61	0.40	36.63	
8	3	2	1	3	1708	0.03	74	2	C 2	1765.8	33.67	0.16	-46.17	
9	3	3	2	1	1743	0.13	75	10	C 3	3355.6	-26.05	0.32	9.54	
									D 1	2696.7	-1.30	0.41	41.06	
									D 2	3430.7	-28.87	0.19	-34.02	
									D 3	1858.8	30.18	0.27	-7.05	
					TOTAL	23959	2.62	1003	296					
					AVERAGE	2662.1	0.29	111.4	32.9		2662.1	0.00	0.29	0.00
					MAXIMUM	5161.46	0.87	157	94		3815.3	33.67	0.57	94.39
					MINIMUM	1661.84	0.03	42	2		1765.8	-43.32	0.08	-71.46

TAGUCHI EXPERIMENT ANALYSIS

ALC : SA

RCC : MATPSI

PCN: 08006A

L9 ARRAY

12-Sep-89

PSI08006

RUN NO.	FACTOR				FLOW TIME RESULT	THRU PUT RESULT	TOTAL	NET	FACTOR	FLOW TIME		THRU PUT		
	A LEVEL	B LEVEL	C LEVEL	D LEVEL			INDUCTED FOR RUN	THRU PUT FOR RUN		EFFECT	PERCENT	EFFECT	PERCENT	
1	1	1	1	1	3157	0.76	325	248	A 1	3261.2	15.93	0.46	111.65	
2	1	2	2	2	2818	0.22	150	33	A 2	4732.4	-18.36	0.13	-41.16	
3	1	3	3	3	4109	0.39	325	127	A 3	3901.2	2.43	0.06	-70.49	
4	2	1	2	3	2987	0.12	423	51	B 1	3477.0	13.04	0.31	44.56	
5	2	2	3	1	4591	0.14	417	58	B 2	3884.6	2.94	0.13	-39.85	
6	2	3	1	2	6619	0.12	417	51	B 3	4633.3	-15.88	0.21	-4.71	
7	3	1	3	2	4287	0.05	512	28	C 1	4673.9	-16.90	0.31	41.23	
8	3	2	1	3	4245	0.03	255	8	C 2	2992.0	25.17	0.15	-31.29	
9	3	3	2	1	3172	0.11	256	27	C 3	4328.8	-8.27	0.19	-9.95	
									D 1	3640.0	8.96	0.34	55.23	
									D 2	4574.6	-14.42	0.13	-38.84	
									D 3	3780.1	5.46	0.18	-16.39	
					TOTAL	35984	1.95	3080	631					
					AVERAGE	3998.3	0.22	342.2	70.1		3998.3	0.00	0.22	0.00
					MAXIMUM	6619.43	0.76	512	248		4732.4	25.17	0.46	111.65
					MINIMUM	2817.6	0.03	150	8		2992.0	-18.36	0.06	-70.49

TAGUCHI EXPERIMENT ANALYSIS

ALC : SA

RCC : MATPSI

PCN: 08007A

L9 ARRAY

12-Sep-89

PSI08007

RUN NO.	FACTOR				FLOW TIME RESULT	THRU PUT RESULT	TOTAL	NET	FACTOR	FLOW TIME		THRU PUT			
	A LEVEL	B LEVEL	C LEVEL	D LEVEL			FOR RUN	FOR RUN		EFFECT	PERCENT	EFFECT	PERCENT		
1	1	1	1	1	765	0.93	399	371	A 1	1314.9	30.04	0.62	25.32		
2	1	2	2	2	1905	0.19	193	37	A 2	2410.9	-28.28	0.48	-3.74		
3	1	3	3	3	1274	0.74	399	294	A 3	1912.7	-1.77	0.39	-21.57		
4	2	1	2	3	1899	0.17	479	80	B 1	1577.6	16.07	0.53	7.63		
5	2	2	3	1	2350	0.54	503	274	B 2	2025.4	-7.76	0.42	-14.11		
6	2	3	1	2	2983	0.72	593	360	B 3	2035.6	-8.31	0.53	6.48		
7	3	1	3	2	2068	0.50	621	310	C 1	1856.2	1.24	0.73	47.19		
8	3	2	1	3	1820	0.54	322	173	C 2	1884.7	-0.28	0.16	-67.28		
9	3	3	2	1	1849	0.13	324	41	C 3	1897.6	-0.96	0.59	20.08		
									D 1	1654.9	11.95	0.53	7.97		
									D 2	2318.9	-23.38	0.47	-5.15		
									D 3	1664.7	11.43	0.48	-2.82		
					TOTAL		16916	4.45	3743	1940					
					AVERAGE		1879.5	0.49	415.9	215.6		1879.5	0.00	0.49	0.00
					MAXIMUM		2983.14	0.93	621	371		2410.9	30.04	0.73	47.19
					MINIMUM		765.01	0.13	193	37		1314.9	-28.28	0.16	-67.28

TAGUCHI EXPERIMENT ANALYSIS

ALC : SA

RCC : MATPSI

PCN: 04542A

L9 ARRAY

12-Sep-89

PSI04542

RUN NO.	FACTOR				FLOW TIME RESULT	TOTAL		NET		FACTOR	FLOW TIME		THRU PUT	
	A LEVEL	B LEVEL	C LEVEL	D LEVEL		THRU PUT RESULT FOR RUN	INDUCTED FOR RUN	THRU PUT FOR RUN	EFFECT PERCENT		EFFECT PERCENT			
1	1	1	1	1	813	0.87	425	370	A 1	675.9	39.75	0.82	23.49	
2	1	2	2	2	571	0.71	217	154	A 2	1269.1	-13.13	0.65	-1.76	
3	1	3	3	3	644	0.88	425	376	A 3	1420.6	-26.63	0.52	-21.74	
4	2	1	2	3	572	0.55	552	306	B 1	1114.4	0.66	0.67	1.38	
5	2	2	3	1	1232	0.70	568	395	B 2	1170.5	-4.33	0.71	6.12	
6	2	3	1	2	2003	0.71	568	404	B 3	1080.7	3.67	0.62	-7.50	
7	3	1	3	2	1958	0.60	1206	722	C 1	1507.8	-34.40	0.75	14.97	
8	3	2	1	3	1708	0.71	610	435	C 2	579.6	48.33	0.50	-24.13	
9	3	3	2	1	596	0.25	607	152	C 3	1278.2	-17.93	0.73	9.15	
									D 1	880.2	21.54	0.61	-9.00	
									D 2	1510.7	-34.66	0.67	1.18	
									D 3	974.6	13.13	0.72	7.82	
					TOTAL	10097	5.99	5178	3314					
					AVERAGE	1121.9	0.67	575.3	368.2		1121.9	0.00	0.67	0.00
					MAXIMUM	2002.76	0.98	1206	722		1516.7	48.33	0.82	23.49
					MINIMUM	571.14	0.25	217	152		579.6	-34.66	0.50	-24.13

TAGUCHI EXPERIMENT ANALYSIS

ALC : SA

RCC : MATPSI

PCN: 10599A

L9 ARRAY

12-Sep-89

PS110598

RUN NO.	FACTOR				FLOW TIME RESULT	THRU PUT RESULT	TOTAL	NET	FACTOR	FLOW TIME		THRU PUT	
	A LEVEL	B LEVEL	C LEVEL	D LEVEL			INDUCTED FOR RUN	THRU PUT FOR RUN		EFFECT	PERCENT	EFFECT	PERCENT
1	1	1	1	1	671	0.89	235	208	A 1	551.2	33.24	0.81	10.92
2	1	2	2	2	515	0.62	130	80	A 2	898.5	-8.82	0.74	0.53
3	1	3	3	3	467	0.94	235	221	A 3	1027.2	-24.42	0.65	-11.46
4	2	1	2	3	545	0.70	235	164	B 1	843.4	-2.16	0.76	3.54
5	2	2	3	1	817	0.76	243	184	B 2	831.9	-0.75	0.68	-7.11
6	2	3	1	2	1334	0.76	243	184	B 3	801.6	2.91	0.76	3.57
7	3	1	3	2	1314	0.70	243	169	C 1	1056.2	-27.93	0.77	5.14
8	3	2	1	3	1164	0.67	140	94	C 2	554.5	32.83	0.63	-13.89
9	3	3	2	1	604	0.58	141	82	C 3	866.1	-4.90	0.80	8.75
									D 1	697.4	15.54	0.74	1.06
									D 2	1054.3	-27.70	0.69	-6.02
									D 3	725.2	12.16	0.77	4.96
			TOTAL		7431	6.60	1845	1386					
			AVERAGE		825.6	0.73	205.0	154.0		825.6	0.00	0.73	0.00
			MAXIMUM		1333.68	0.94	243	221		1056.2	33.24	0.81	10.92
			MINIMUM		467.21	0.58	130	80		551.2	-27.93	0.63	-13.89

TAGUCHI EXPERIMENT ANALYSIS

ALC : SA

RCC : MATPSI

PCN: 10719A

L9 ARRAY

12-Sep-89

PSI10718

RUN NO.	FACTOR				FLOW TIME RESULT	THRU PUT RESULT	TOTAL	NET	FACTOR	FLOW TIME		THRU PUT			
	A LEVEL	B LEVEL	C LEVEL	D LEVEL			INDUCTED FOR RUN	THRU PUT FOR RUN		EFFECT	PERCENT	EFFECT	PERCENT		
1	1	1	1	1	902	0.91	258	235	A 1	812.2	29.72	0.78	33.46		
2	1	2	2	2	649	0.55	122	67	A 2	1093.3	5.39	0.62	5.98		
3	1	3	3	3	886	0.88	258	227	A 3	1561.2	-35.10	0.35	-39.44		
4	2	1	2	3	760	0.38	335	127	B 1	1329.4	-15.04	0.57	-2.60		
5	2	2	3	1	970	0.74	357	265	B 2	1054.9	8.71	0.58	-0.76		
6	2	3	1	2	1551	0.74	357	263	B 3	1082.4	6.33	0.60	3.36		
7	3	1	3	2	2327	0.42	553	231	C 1	1332.9	-15.34	0.70	19.54		
8	3	2	1	3	1546	0.45	281	126	C 2	739.8	35.98	0.37	-35.39		
9	3	3	2	1	811	0.20	281	55	C 3	1394.0	-20.63	0.68	16.35		
									D 1	894.2	22.62	0.62	5.45		
									D 2	1508.0	-30.55	0.57	-2.83		
									D 3	1063.9	7.93	0.57	-2.52		
					TOTAL		10400	5.26	2802	1596					
					AVERAGE		1155.6	0.58	311.3	177.3		1155.6	0.00	0.58	0.00
					MAXIMUM		2326.57	0.91	553	265		1561.2	35.98	0.78	33.46
					MINIMUM		648.81	0.20	122	55		739.8	-35.10	0.35	-39.44

TAGUCHI EXPERIMENT ANALYSIS

ALC : SA

RCC : MATPSI

PCN: 12712A

L9 ARRAY

12-Sep-89

PSI12712

RUN NO.	FACTOR				FLOW TIME RESULT	TOTAL		NET		FACTOR	FLOW TIME		THRU PUT	
	A LEVEL	B LEVEL	C LEVEL	D LEVEL		THRU PUT RESULT	INDUCTED FOR RUN	THRU PUT FOR RUN	EFFECT		PERCENT	EFFECT	PERCENT	
1	1	1	1	1	1230	0.85	144	123	A 1	1344.5	29.00	0.81	58.08	
2	1	2	2	2	606	0.96	69	66	A 2	2652.7	-40.08	0.27	-46.90	
3	1	3	3	3	2198	0.63	144	91	A 3	1684.1	11.07	0.46	-11.18	
4	2	1	2	3	633	0.69	178	123	B 1	1385.6	26.84	0.61	17.46	
5	2	2	3	1	2965	0.08	193	15	B 2	1897.1	-0.17	0.46	-11.49	
6	2	3	1	2	4360	0.05	193	10	B 3	2398.7	-26.66	0.48	-5.97	
7	3	1	3	2	2294	0.27	189	51	C 1	2570.0	-35.71	0.41	-19.20	
8	3	2	1	3	2121	0.33	81	27	C 2	625.7	66.96	0.81	56.41	
9	3	3	2	1	638	0.77	78	60	C 3	2485.6	-31.25	0.33	-36.61	
									D 1	1610.9	14.94	0.57	10.09	
									D 2	2419.6	-27.77	0.43	-17.28	
									D 3	1650.6	12.83	0.55	7.19	
					TOTAL	17044	4.64	1269	566					
					AVERAGE	1893.8	0.52	141.0	62.9		1893.8	0.00	0.52	6.00
					MAXIMUM	4359.72	0.96	193	123		2652.7	66.96	0.81	58.08
					MINIMUM	605.52	0.05	69	10		625.7	-40.08	0.27	-46.90

TAGUCHI EXPERIMENT ANALYSIS

ALC : SA

RCC : MATPSI

PCN: 13081A

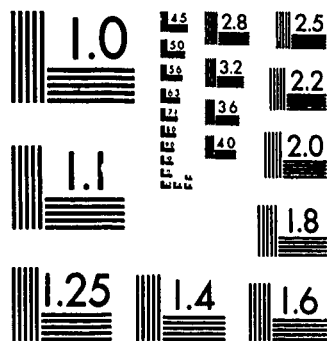
L9 ARRAY

12-Sep-89

PS113081

RUN NO.	FACTOR				FLOW TIME RESULT	TOTAL		NET		FACTOR	FLOW TIME		THRU PUT	
	A LEVEL	B LEVEL	C LEVEL	D LEVEL		THRU PUT RESULT	INDUCTED FOR RUN	THRU PUT FOR RUN	EFFECT		PERCENT	EFFECT	PERCENT	
1	1	1	1	1	429	0.72	107	77	A 1	637.2	34.69	0.56	-4.84	
2	1	2	2	2	912	0.35	68	24	A 2	903.9	7.35	0.73	23.86	
3	1	3	3	3	570	0.62	107	66	A 3	1386.0	-42.05	0.48	-19.02	
4	2	1	2	3	810	0.38	139	53	B 1	1105.8	-13.33	0.57	-3.45	
5	2	2	3	1	785	0.83	137	114	B 2	1019.6	-4.50	0.58	-2.01	
6	2	3	1	2	1116	0.99	137	135	B 3	801.8	17.83	0.62	5.46	
7	3	1	3	2	2078	0.61	169	103	C 1	969.0	0.69	0.75	27.28	
8	3	2	1	3	1361	0.55	101	56	C 2	813.8	16.59	0.33	-43.43	
9	3	3	2	1	719	0.27	100	27	C 3	1144.3	-17.29	0.69	16.15	
									D 1	644.6	33.93	0.61	2.62	
									D 2	1368.7	-40.28	0.65	9.92	
									D 3	913.8	6.34	0.52	-12.54	
					TOTAL	8781	5.33	1064	655					
					AVERAGE	975.7	0.59	118.2	72.8		975.7	0.00	0.59	0.00
					MAXIMUM	2077.59	0.99	168	135		1386.0	34.69	0.75	27.28
					MINIMUM	429.47	0.27	68	24		637.2	-42.05	0.33	-43.43





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

TAGUCHI EXPERIMENT ANALYSIS

ALC : SA

RCC : MATPSI

PCN: 13094A

L9 ARRAY

12-Sep-89

PSI13094

RUN NO.	FACTOR				FLOW TIME RESULT	THRU PUT RESULT	TOTAL	NET	FACTOR	FLOW TIME		THRU PUT	
	A LEVEL	B LEVEL	C LEVEL	D LEVEL			INDUCTED FOR RUN	THRU PUT FOR RUN		EFFECT	PERCENT	EFFECT	PERCENT
1	1	1	1	1	791	1.02	185	188	A 1	886.7	36.50	0.74	21.03
2	1	2	2	2	1108	0.34	113	38	A 2	1592.0	-14.01	0.61	-0.47
3	1	3	3	3	751	0.87	185	161	A 3	1710.5	-22.49	0.49	-20.55
4	2	1	2	3	1099	0.29	240	70	B 1	1343.9	3.76	0.85	6.53
5	2	2	3	1	1718	0.71	248	176	B 2	1558.8	-11.63	0.56	-9.09
6	2	3	1	2	1950	0.83	248	205	B 3	1286.5	7.37	0.63	2.56
7	3	1	3	2	2142	0.65	296	192	C 1	1533.8	-9.83	0.82	34.30
8	3	2	1	3	1850	0.82	186	116	C 2	1115.3	20.13	0.27	-55.64
9	3	3	2	1	1139	0.19	182	34	C 3	1540.2	-10.29	0.74	21.34
									D 1	1216.1	12.91	0.64	4.14
									D 2	1736.6	-24.36	0.60	-1.37
									D 3	1236.6	11.45	0.60	-2.78
			TOTAL		12568	5.51	1883	1180					
			AVERAGE		1396.4	0.61	209.2	131.1		1396.4	0.00	0.61	0.00
			MAXIMUM		2141.95	1.02	296	205		1736.6	36.50	0.82	34.30
			MINIMUM		760.76	0.19	113	34		886.7	-24.36	0.27	-55.64

TAGUCHI EXPERIMENT ANALYSIS

ALC : SA

RCC : MATPSI

PCN: 13095A

L9 ARRAY

12-Sep-89

PS113095

RUN NO.	FACTOR				FLOW TIME RESULT	THRU PUT RESULT	TOTAL	NET	FACTOR	FLOW TIME		THRU PUT			
	A LEVEL	B LEVEL	C LEVEL	D LEVEL			INDUCTED FOR RUN	THRU PUT FOR RUN		EFFECT	PERCENT	EFFECT	PERCENT		
1	1	1	1	1	626	0.99	212	210	A 1	733.5	42.70	0.79	23.31		
2	1	2	2	2	966	0.46	112	52	A 2	1577.8	-23.27	0.64	-0.31		
3	1	3	3	3	608	0.92	212	195	A 3	1528.7	-19.43	0.49	-23.00		
4	2	1	2	3	933	0.41	279	114	B 1	1247.8	2.52	0.67	3.85		
5	2	2	3	1	1718	0.71	272	193	B 2	1396.8	-9.13	0.58	-9.62		
6	2	3	1	2	2083	0.80	272	218	B 3	1195.4	8.61	0.68	5.77		
7	3	1	3	2	2184	0.60	333	200	C 1	1405.2	-9.78	0.79	22.49		
8	3	2	1	3	1507	0.57	180	102	C 2	931.6	27.22	0.40	-38.29		
9	3	3	2	1	895	0.32	187	59	C 3	1503.3	-17.44	0.74	15.80		
									D 1	1079.7	15.65	0.67	4.67		
									D 2	1744.4	-36.28	0.52	-3.08		
									D 3	1015.8	20.64	0.63	-1.59		
					TOTAL		11520	5.78	2059	1343					
					AVERAGE		1280.0	0.64	228.8	149.2		1280.0	0.00	0.64	0.00
					MAXIMUM		2184.16	0.99	333	218		1744.4	42.70	0.79	23.31
					MINIMUM		607.99	0.32	112	52		733.5	-36.28	0.40	-38.29

TAGUCHI EXPERIMENT ANALYSIS

ALC : SA

RCC : MATPSI

PCN: 13096A

L9 ARRAY

12-Sep-89

PSI13096

RUN NO.	FACTOR				FLOW TIME RESULT	THRU PUT RESULT	TOTAL	NET	FACTOR	FLOW TIME		THRU PUT		
	A LEVEL	B LEVEL	C LEVEL	D LEVEL			INDUCTED FOR RUN	THRU PUT FOR RUN		EFFECT	PERCENT	EFFECT	PERCENT	
1	1	1	1	1	1142	0.73	208	151	A 1	1145.0	30.47	0.57	29.66	
2	1	2	2	2	1091	0.37	60	22	A 2	2048.0	-24.36	0.32	-26.18	
3	1	3	3	3	1203	0.61	208	126	A 3	1747.6	-6.12	0.42	-3.47	
4	2	1	2	3	1018	0.16	270	43	B 1	1483.8	9.90	0.42	-2.80	
5	2	2	3	1	2539	0.37	260	96	B 2	1839.1	-11.67	0.45	3.53	
5	2	3	1	2	2587	0.44	260	114	B 3	1617.7	1.77	0.43	-0.73	
7	3	1	3	2	2292	0.39	268	104	C 1	1972.0	-13.67	0.59	36.24	
8	3	2	1	3	1887	0.62	79	49	C 2	1057.1	35.81	0.26	-40.30	
9	3	3	2	1	1063	0.26	82	21	C 3	2011.4	-22.13	0.45	4.06	
									D 1	1581.5	3.97	0.45	3.16	
									D 2	1989.9	-20.83	0.40	-8.91	
									D 3	1359.2	16.86	0.46	5.75	
					TOTAL		14822	3.93	1695	726				
					AVERAGE		1646.8	0.44	188.3	80.7	1646.8	0.00	0.44	0.00
					MAXIMUM		2597.03	0.73	270	151	2048.0	35.81	0.59	36.24
					MINIMUM		1017.62	0.16	60	21	1057.1	-24.36	0.26	-40.30

B.6.2 STATISTICAL SYSTEM PERFORMANCE MEASURES

The SA-ALC/MOMSC Technology Insertion team collected data on current MATPSI operations by interviewing operators, inspectors, supervisors, planners, and engineers. The data was for profiling 12 end items (PCNs) for characterization in the UDOOS 2.0 simulation model. The data were loaded into a "flat file" which could be run with the model to uniquely represent this RCC. This flat file was validated on the model at SA-ALC as reported in the validation minutes submitted by MOMSC to HQ AFEC in letter NKE-E016-xx71, dated 19 July 1989.

The quality characteristics tested in the model are throughput and flow time, and the independent variables for the stochastic model simulation are manpower and equipment. For the validation, throughput was measured by comparing the number of end items completed by the UDOOS model to actual F₂₃ output. Criteria for successful validation were established by SA-ALC and AFEC and were agreed to by MOMSC. Those criteria were (1) ^{throughput} variance not to exceed 10% compared to the established benchmark, and (2) flow time variance not to exceed 15% compared to the established benchmark. The benchmark was intended to be historical data, but historical data (provided via WCOs) was hopelessly inadequate. ~~As discussed below~~ WCOs were reviewed and PAC stamp dates for induction, sell and operations were entered into MOMSC's computer data base. However, review of the WCOs revealed that (1) some WCOs were missing, some had no induction and/or sell dates, and most had been gang-stamped. It was very apparent that the resulting flow times would be highly suspicious and inaccurate. This assessment was ~~not~~ shared by SA-ALC engineering, planning and management, and was corroborated by the AFEC representative (Trixie Brown) during the July validation.

Flow times (based on a 24-hour period) from the simulation were compared history and, when history data was judged inadequate, GOIRC Report average flow times (days converted to hours) and supervisor estimates were used. Since the GOIRC flow times are mathematically computed times, and are not historical, supervisor estimates were used as the more realistic benchmark for much of the validation. Results of the validation are discussed further in section B.0

Following the validation of all three Block I RRCs, a joint brainstorming session was held in which representatives from all three RRCs participated. The session was conducted by MADMSC on site at SA-ALC. Participants provided a list of concerns or things they wanted to see improved within their respective RRCs - factors which could be tested by the model. Specific focus studies or quick fixes were not specifically addressed during the factor listing process. The approach was to have experienced personnel ~~reactive to~~ ~~non~~ identify key problems or concerns in their respective operations area as candidates for experimentation.

The control factors chosen are shown in the Taguchi orthogonal array in Table 8.6.2-1, ~~Setting~~. Although the clearing area is a known production problem area (bottleneck, unclean environment), it was not addressed by the SAALC address. Also, the proposed new clearing area in Bldg 329 and the imminent material movement systems ~~moving~~ and storage relocation and modification were not discussed. During process characterization it was noted that there was a shortage of trained inspectors, ^{MADMSC} so this was one manpower control factor that the brainstorming participants chose to experiment with. Induction strategy was a control factor SA-ALC wanted to experiment with because of the queuing and storage of WIP. Workload, more of a noise factor, was looked at to test capacity.

The surge workload figures were provided by HQ AFLC to assess performance capability under wartime conditions. The experiment results indicate that this RRC is already working near capacity and that it would be incapable of meeting surge workload requirements in its present configuration. Only approximately 45% of required throughput was obtained in the experiment, the most critical factor being the availability and adequacy of clearing and sandblasting personnel. Fluorescent penetrant dye inspection personnel and limited fluorescent penetrant inspection (FPI) equipment availability also pose bottleneck problems. (See a summary of experimentation results in Table 8.6.2-2)

The factor of leveled inductions produced significantly better (shorter) flow times, but severely decreased throughput. This effect continued through 130% and surge workload runs.

The factor adding 20 ~~additional~~ inspectors (trained or untrained) resulted in no significant improvements, disproving the claim that new inspectors would improve operations. The model results do not indicate this area to be a bottleneck. ~~though that in itself does not say new inspectors are not needed.~~

If existing inspectors, or those who are temporarily borrowed for inspection meet acceptable standards of training and job knowledge, the current workforce in this area should suffice.

The most heavily used resources ^{in the experimentation} were the cleaning and sandblasting personnel with a normal utilization rate of 90%. Under surge and 130% workloads the rate increases to 100%, and queues form, and throughput drops rapidly. This area is a bottleneck. MOMSC does not have sufficient information to determine whether the reorganization of the cleaning facility will change this problem. (At last discussion on the topic, the facility modification was scheduled for fourth quarter FY89.)

On the basis of the experimentation results, MOMSC offers the following comments:

- The cleaning and sandblasting area staffing should be reviewed, as should the respective equipment. Operating second and/or third shift would most likely improve throughput. In surge conditions additional personnel and equipment will most likely be required. Also, ^{some} personnel in other RCC's in MAT and in other areas of MATPSI, should be crosstrained to provide backup assistance.
- Further experimentation should be conducted with the new cleaning facility equipment, process and personnel capabilities. The current model file for MATPSI will have to be modified accordingly. The experimentation should show whether improvement in resource use, flow time and throughput improve.
- Further experimentation should be performed with the UOAS 2.0 model to assess the impact of training and shiftwork discussed above. This experimentation should include work-in-process limits to optimize induction rates and ensure balanced flow and maximum throughput capacity.

9.1

GENERAL DESCRIPTION OF FACTORS AND LEVELS

<u>FACTOR NAME</u>	<u>LEVELS</u>		
	<u>1</u>	<u>2</u>	<u>3</u>
A) WORKLOAD	: FY88	FY88 + 30%	SURGE
B) INSPECTOR MANPOWER	: AS IS	+ 20 INSPECTORS TRAINED	+ 20 INSPECTORS UNTRAINED
C) INDUCTION SCHEDULE:	PARTS INDUCTED INTO FULL SHOP	LEVEL INDUCTION: WORK-IN-PROCESS HELD TO 25% OF SMALLEST FY88 QTR'S INDUCTIONS	PARTS INDUCTED INTO AN EMPTY SHOP
D) CHANGE OF MODEL			
RANDOM SEED	: SEED 1	SEED 2	SEED 3

MATPSI

10.0

EXPERIMENTATION

The Factors and levels developed in the brainstorming session were fit into a Taguchi $L(9)$ Orthogonal array for model experimentation. The use of this array reduced the number of runs required from 81 to 9. Because of the extremely volatile response of the UOOS model for this RCC (first observed during validation) an additional level of noise was added to the experiment. This was accomplished by varying the random seed (which drives the model) among three seeds. This was included in the array as factor D.

10.1 Table 10.1 is the orthogonal array used to design the experimentation for this RCC.

	A	B	C	D
EXP #	WORKLOAD	INSPECTORS	INDUCTIONS	NOISE
1	FY 88	AS 15	FULL	SEED 1
2	FY 88	+20 TRAINED	LEVEL	SEED 2
3	FY 88	+20 UNTRAINED	EMPTY	SEED 3
4	130%	AS 15	LEVEL	SEED 3
5	130%	+20 TRAINED	EMPTY	SEED 1
6	130%	+20 UNTRAINED	FULL	SEED 2
7	SURGE	AS 15	EMPTY	SEED 2
8	SURGE	+20 TRAINED	FULL	SEED 3
9	SURGE	+20 UNTRAINED	LEVEL	SEED 1

TABLE 10.1

10.2

CONDUCT OF THE EXPERIMENTS

APPENDIX — provides the detailed results of the experiments. THE variance caused by changing random seeds was so significant that it invalidated the response for factor B (~~and~~ Throughput and Flowtime) and factor C (Flowtime only). Because of the very low signal to noise ratio found in this experiment, no optimal configuration of factors was calculated.

10.2.1

SURGE

Surge figures for PCIV inductions were based on data provided by HQ-AFLC. This experiment revealed significant problems within MATPSZ that will allow only 45% of the required throughput under wartime surge conditions. This is described in ~~Paragraph~~ Paragraph 10.4

10.3

Results Summary - Normal work load

Leveling the inductions (Factor C / Level 2) produced significantly improved flowtimes but severely decreased throughput. This indicates that the RCC is currently operating very near total capacity. The effect continued through 130% and surge (approximately 160%) workload levels.

10.3 cont

- The addition of extra inspectors (trained or untrained) produced no significant improvements. The utilization of these workers was low. This area is not a bottleneck at any work load level.
- The single most utilized resource was cleaning and sandblasting personnel with utilization rates of over 90%. These personnel are the most significant bottleneck in this RCC. At 130% workload, their utilization rate reaches 100% and throughput begins to drop rapidly.

10.4 Results summary - Surge workload

- Under ~~the~~ surge conditions, only 45% of required throughput was obtained. The most significant limiting factor was cleaning & sandblasting personnel, with NDI personnel running a close second. The NDI equipment was heavily taxed as well.

RECOMMENDATIONS

- MATPSI management should immediately consider shift work for cleaning and sandblasting workers. Any new additions to the work force should be in these skill areas.
- MATPSI management should consider an aggressive cross-training program between mechanics, cleaning and sandblasting workers, and NDI workers. An aggressive program to upgrade the skills of the "helper" workers should be mounted, or, a redesign of work assignments to increase the utilization of these workers should be undertaken.
- Further experimentation should be performed, using the UDOS 2.0 model, to assess the impact of the training and shift work described above. This experimentation should include work-in-process limits at several levels to optimize the rate of inductions and ensure a balanced flow and maximum capacity.

9.0

MATPSIBrainstorming

After completing validation of UDOS 2.0 simulation model for RCC MATPSI, a brainstorming session was conducted with personnel from SA-ALL and MDMSC. This session was facilitated by MDMSC and was designed to help SA-ALL personnel select those areas of the RCC which they would like as factors in model experimentation.

9.1

GENERAL DESCRIPTION OF FACTORS AND LEVELS

<u>FACTOR NAME</u>	<u>LEVELS</u>		
	<u>1</u>	<u>2</u>	<u>3</u>
A) WORKLOAD :	FY88	FY88 + 30%	SURGE
B) INSPECTOR MANPOWER :	AS IS	+ 20 INSPECTORS TRAINED	+ 20 INSPECTORS UNTRAINED
C) INDUCTION SCHEDULE:	PARTS INDUCTED INTO FULL SHOP	LEVEL INDUCTION: WORK-IN-PROCESS HELD TO 25% OF SMALLEST FY88 QTR'S INDUCTIONS	PARTS INDUCE INTO AN EMPTY SHOP
D) CHANGE OF MODEL RANDOM SEED :	SEED 1	SEED 2	SEED 3

MATPSI

10.0

EXPERIMENTATION

The Factors and levels developed in the brainstorming session were fit into a Taguchi L(9) Orthogonal array for model experimentation. The use of this array reduced the number of runs required from 81 to 9. Because of the extremely volatile response of the UDOS model for this RCC (first observed during validation) an additional level of noise was added to the experiment. This was accomplished by varying the random seed which drives the model among three seeds. This was included in the array as factor D.

10.1 Table 10.1 is the orthogonal array used to design the experimentation for this RCC.

	A	B	C	D
EXP #	WORKLOAD	INSPECTORS	INJUNCTIONS	NOISE
1	FY 88	AS IS +20	FULL	SEED 1
2	FY 88	TRAINED +20	LEVEL	SEED 2
3	FY 88	UNTRAINED	EMPTY	SEED 3
4	130%	AS IS +20	LEVEL	SEED 3
5	130%	TRAINED	EMPTY	SEED 1
6	130%	UNTRAINED +20	FULL	SEED 2
7	SURGE	AS IS +20	EMPTY	SEED 2
8	SURGE	TRAINED	FULL	SEED 3
9	SURGE	UNTRAINED +20	LEVEL	SEED 1

TABLE 10.1

10.2

CONDUCT OF THE EXPERIMENTS

APPENDIX — provides the detailed results of the experiments. THE variance caused by changing random seeds was so significant that it invalidated the response for factor B (Throughput and Flowtime) and factor C (flowtime only). Because of the very low signal to noise ratio found in this experiment, no optimal configuration of factors was calculated.

10.2.1

SURGE

Surge figures for PCN inductions were based on data provided by HQ-AFLL. This experiment revealed significant problems within MATPS2 that will allow only 45% of the required throughput under wartime surge conditions. This is described in ~~Paragraph~~ Paragraph 10.4

10.3

Results Summary - Normal work load

• Leveling the inductions (Factor C / Level 2) produced significantly improved flowtimes but severely decreased throughput. This indicates that the RCC is currently operating very near total capacity. The effect continued through 130% and surge (approximately 160%) workload levels.

10.3 cont

- The addition of extra inspectors (trained or untrained) produced no significant improvements. The utilization of these workers was low. This area is not a bottleneck at any work load level.
- The single most utilized resource was cleaning and sand blasting personnel with utilization rates of over 90%. These personnel are the most significant bottleneck in this RCC. At 130% workload, their utilization rate reaches 100% and throughput begins to drop rapidly.

10.4 Results summary - Surge workload

- Under ~~the~~ surge conditions, only 45% of required throughput was obtained. The most significant limiting factor was cleaning & sand blasting personnel, with NDI personnel running a close second. The NDI equipment was heavily taxed as well.

RECOMMENDATIONS

- o MATPSI management should immediately consider shift work for cleaning and sandblasting workers. Any new additions to the work force should be in these skill areas.
- o MATPSI management should consider an aggressive cross-training program between mechanics, cleaning and sandblasting workers, and NDI workers. An aggressive program to upgrade the skills of the "helper" workers should be mounted, or, a redesign of work assignments to increase the utilization of these workers should be undertaken.
- o Further experimentation should be performed, using the UDOS 2.0 model, to assess the impact of the training and shift work described above. This experimentation should include work-in-process limits at several levels to optimize the rate of inductions and ensure a balanced flow and maximum capacity.

TECHNOLOGY INSERTION ENGINEERING SERVICES PROGRAM

TI PROGRAM COST BENEFIT ANALYSIS REPORT

ALC SA DATE 5/8/89
RCC MATRSZ ITEM NO. _____
NOUN INSPECTION

CONTROL NO. 001

TYPE PROPOSAL

- QUICK FIX
- FOCUS STUDY
- OTHER _____

CURRENT METHOD = VISUAL INSPECTION. THE WCD ALSO REQUIRES THAT THE INSPECTORS (W.G.'S & 10'S) REMOVE WICKS AND BURRS AND CORROSION TREATS.

PROPOSED METHOD ESTABLISH ONE OR MORE INSPECTION STATIONS WHERE THIS INSPECTION AND REWORK WOULD BE ACCOMPLISHED BY LOWER GRADE INSPECTORS WITHIN THE INSPECTION AREA

BENEFIT OF CHANGE WOULD ELIMINATE THESE PARTS FROM BEING INSPECTED BY HIGHER GRADE LEVEL / HIGHER SKILL LEVEL / HIGHLY TRAINED INSPECTORS. COULD BE CONSIDERED AS AN ENTRY LEVEL / TRAINING POSITION FOR NEW INSPECTORS. WOULD REMOVE THIS TYPE OF INSPECTION AND REWORK FROM THE INSPECTION STATIONS / EQUIPMENT WHICH SHOULD BE DEVOTED TO MORE COMPLEX TYPE INSPECTIONS AND INCREASE THE THRU-PUT CAPACITY OF THESE STATIONS. SHOULD REDUCE THE FLOW TIME THRU THE INSPECTION PROCESS.

PRODUCTIVITY IMPROVEMENT SUMMARY

REDUCE INSPECTION COST AS A RESULT OF LOWER LABOR CLASSIFICATIONS, INCREASE THRU-PUT CAPACITY, AND REDUCE CYCLE TIMES.

TECHNOLOGY INSERTION ENGINEERING SERVICES PROGRAM

PROGRAM PROGRAM

COST BENEFIT ANALYSIS REPORT

CONTROL NO. SP-001
TYPE PROPOSAL

- QUICK FIX #21
- FOCUS STUDY
- OTHER

ALC JA DATE 9 May '89
 RCC MTRD ITEM NO. _____
 NOUN Work Station

CURRENT METHOD

All Certified Inspectors perform a visual inspection task which includes condemning or routing a part to a benchtop for rework as well as inspecting for nicks and burrs and then applying corrosion proofing to any area that was smoothed or filed.

PROPOSED METHOD

Establish one or more work stations as a "First Point" of inspection where the above tasks are accomplished by a lower grade and skill level employee who is not a Certified Inspector.

BENEFIT OF CHANGE

Permit employee progression, release high grade and skill level employees of low grade tasks, free up time on the computer controlled "APLS" equipment.

PRODUCTIVITY IMPROVEMENT SUMMARY

Improve package and reduce costs plus increase machine (APLS) production.

TECHNOLOGY INSERTION ENGINEERING SERVICES PROGRAM

011 BUTNEY, B.
CONTROL NO. SH-034

TI PROGRAM
COST BENEFIT ANALYSIS REPORT

ALC ALL DATE 13 JUN 89
RCC ALL ITEM NO. 7
NOUN INSPECTION

TYPE PROPOSAL <input checked="" type="checkbox"/> QUICK FIX <input type="checkbox"/> FOCUS STUDY <input type="checkbox"/> OTHER _____
--

CURRENT METHOD: QDRs ARE WAITEN DESCRIBING KNOWN DISCREPANCIES ON PARTS IN STORAGE. THE STORES MANAGER DECIDES ON HIS OWN INITIATIVE IF A PART SO DESCRIBED AS POTENTIALLY DISCREPANT WILL OR WILL NOT BE INSPECTED (SCREENED) FOR THE NOTED QDR DISCREPANCY PRIOR TO RELEASING THESE PARTS FROM THE STORAGE AREA. THIS AFFECTS PRODUCTIVITY AS BAD PARTS ARE FIRST DISCOVERED ON THE PRODUCTION FLOOR.

PROPOSED METHOD: REQUIRE ALL PARTS IN STORES TO BE SCREENED FOR QDR NOTED DISCREPANCIES ACCORDING TO A SET CRITERIA RELATIVE TO THE NUMBER OF PARTS ON THE NUMBER OF TIMES A PART IS FOUND TO BE DISCREPANT ON THE PRODUCTION FLOOR.

BENEFIT OF CHANGE: PRODUCTIVITY WILL NOT BE IMPACTED IF DISCREPANT PARTS ARE REMOVED FROM STORES BEFORE SENDING THESE SCREENED PARTS TO THE PRODUCTION FLOOR.

PRODUCTIVITY IMPROVEMENT SUMMARY: DOWNTIME AND FLOWTIME WILL BE REDUCED BY REMOVING DISCREPANT PARTS FROM SUSPECT LOTS OF PARTS IN STORAGE PRIOR TO SENDING THESE PARTS INTO PRODUCTION.

TECHNOLOGY INSERTION ENGINEERING SERVICES PROGRAM

TIP PROGRAM
COST BENEFIT ANALYSIS REPORT

COMMAND WIDE DATE 24 MAY 89

RCC ITEM NO. _____
NOUN QDR IMPROVEMENT (QUALITY DISCREPANCY REPORT)

CONTROL NO. SA. 36

TYPE PROPOSAL

- QUICK FIX
- FOCUS STUDY
- OTHER _____

CURRENT METHOD: USUALLY ONLY THE OUTER PACKAGE OF NEWLY RECEIVED PARTS CONTAINS CONTRACT NO, VENDOR CODE AND DATE OF MANUFACTURE, ONCE THE OUTER PACKAGE IS REMOVED THIS INFORMATION IS LOST. IF THE PART IS DEFECTIVE A QDR IS WRITTEN FOR SUPPLIER ACTION. SOME SUPPLIERS WILL NOT ACCEPT RESPONSIBILITY FOR THE DEFECT UNLESS THE ABOVE INFORMATION IS SUPPLIED

PROPOSED METHOD / INCLUDE IN THE GENERAL CONTRACT PURCHASE ORDER (P.O.) A REQUIREMENT THAT THE CONTRACT NUMBER, VENDOR CODE AND DATE OF MANUFACTURE BE INCLUDED ON EACH PART ITSELF, EITHER BY RUBBER STAMP, TAG OR OTHER NON-CORROSIVE METHOD. SMALL PARTS AND EXISTING PARTS IN THE SYSTEM SHOULD HAVE A TAG ATTACHED TO THE PART WITH THE ABOVE INFORMATION.

BENEFIT OF CHANGE: FULL CREDIT FOR ALL FROM SUPPLIERS DUE TO DISCREPANT PARTS UNDER WARRANTY, RESULTING IN COST TIME SAVINGS.

PRODUCTIVITY IMPROVEMENT SUMMARY: LESS DOWNTIME FROM DISCREPANT NEW PARTS DUE TO SUPPLIERS REFUSING TO TAKE RESPONSIBILITY FOR LACK OF INFORMATION.

Control Number SA-027

Date: 26 May 89

Subject: Evaluation & Inspection (E&I) Coordinate Measurement Machine (CMM) Operation. Improve Accuracy and Integrity of the CMMs.

Proposed Method: Provide year round temperature, humidity and particulate controls within the E&I CMM room. 1. Restrict personnel access to room. 2. Provide a doorway airlock. 3. Improve personnel protective clothing. 4. Wipe trays with lint catching cloth. 5. Regulate and filter CMM room air.

Evaluation: 1. The E&I room is officially classified as a 300,000 class controlled environment as provided in T.O. 00-25-203. This covers all the items proposed including the following:

- a. Room temperature should not exceed 80°F.
- b. Humidity should not exceed 50%.
- c. Room should have positive pressure.
- d. The particle tolerance count shall be no more than 300,000 particles 0.5 micron and per cubic foot of air or no more than 1,000 particles 5.0 microns and larger per cubic foot of air when measured with automatic particle counters.
- e. The Air Handling Unit (AHU) should be designed to provide 10 air changes per hour.

A clean room officer has been monitoring this room at least once a month for compliance. We have also recently added diffusers and increased the capacity of the AHU blower for better control of the room temperature. In the past three years of operation, there has only been one APIS shut down directly attributable to the environmental condition of the room.

2. In addition, there is an existing SARPMA project (SA-89-0390) that would correct any deviation from the 300,000 class environment dictated by T.O. 00-25-203.

3. The CMMs of the APIS is considered by the metrology industry as being one of the most accurate and most repeatable that the market can offer. It has a linear accuracy of +/- 0.0002" and repeatable to 0.0001". Any CMM that would have a better accuracy certification would require laboratory type conditions and would not be ideal for a production type environment.

PGC: Manuel R. Diego, MATEA, 54323

TECHNOLOGY INSERTION ENGINEERING SERVICES PROGRAM

TI PROGRAM COST BENEFIT ANALYSIS REPORT

CONTROL NO. S. 027

TYPE PROPOSAL

- QUICK FIX
- FOCUS STUDY
- OTHER

ALC SA DATE 26 MAY 89
RCC MAT PSE ITEM NO. CMM

NOUN EAI CMM OPERATIONS (EVALUATION AND INSPECTION) (COORDINATE MEASURING MACHINE)

CURRENT METHOD: ACTUAL EAI CMM OPERATIONS ARE VERY GOOD. THE OPERATIONS OF THE CMM ARE SUSPENDED OR DELAYED AT TIMES ESPECIALLY DURING THE SUMMER BECAUSE ENVIRONMENTAL CONDITIONS RENDER THE CMM RESULTS UNRELIABLE.

PROPOSED METHOD: PROVIDE YEAR ROUND TEMPERATURE, HUMIDITY AND PARTICULATE CONTROLS WITHIN THE EAI CMM ROOM. (1) RESTRICT PERSONNEL ACCESS TO ROOM (2) PROVIDE A DOORWAY AIRLOCK (3) IMPROVE PERSONNEL PROTECTIVE CLOTHING (4) WIPE TRAYS WITH LINT-CATCHING CLOTH (5) REGULATE & FILTER CMM ROOM AIR.

BENEFIT OF CHANGE: (1) BETTER UTILIZATION OF EAI PERSONNEL (2) INCREASE PRODUCTIVITY DUE TO LESS DOWNTIME (3) MAINTAIN CONSISTANT AND ACCURATE CMM READINGS.

PRODUCTIVITY IMPROVEMENT SUMMARY: LESS EAI DOWNTIME FROM ENVIRONMENTAL CONDITIONS WILL INCREASE PRODUCTIVITY

Subject: Control Number SA-028

Date: 25 May 89

Noun: Auto Prompting Inspection System (APIS) Operations

Proposed Methods: Add a mouse to the APIS display terminal so that inspector can mark on the display and store the information. During an engineering review, the information can be recalled and combined with the stored information of other parts to reveal where any consistent failures in the part may be occurring. Engineering could then buttress the part in the areas of consistent failures.

Evaluation: 1. The APIS software is not currently storing the graphics portion of each part being inspected. The APIS is storing text data gathered during the inspection. Should the software be changed to be able to store the graphics data, then the APIS will need a significant increase in cost for added memory capacity, additional workstation hardware and software modification. Estimated cost is at least \$500,000.

2. The APIS inspector will require added skill to mark the feature. This would require added training and added time for the labor standard.

3. Present text data stored can reveal consistent failure rate on a feature if a trend does occur. The APIS has a statistical process control program that does charting (pie and bar) of any feature that engineering may need to review. It also makes available the failure rate according to part numbers, end items, stock numbers, bar code numbers by inspector or workstation number. The data can go as far back as a year. Although the graphics data is not stored, the result is still the same as recommended.

POC: Manuel R. Diego, MATEA, 54323

TECHNOLOGY INSERTION ENGINEERING
SERVICES PROGRAM

620
CONTROL NO. 51.028

TI PROGRAM
COST BENEFIT ANALYSIS REPORT

ALC SA-ALC DATE 25 MAY 89

RCC ALC PART # ITEM NO. AP15

NOUN APIS OPERATIONS

(AUTOMATED PROMPTING INSPECTION STATION)

TYPE PROPOSAL

- QUICK FIX
- FOCUS STUDY
- OTHER _____

CURRENT METHOD: THE APS PICTORIALY DISPLAYS EACH FIELD RETURNED PART AFTER IT IS MEASURED. AN INSPECTOR THEN COMPARES THE PART WITH ITS VISUAL REPRESENTATION. THE APIS THEN PROMPTS THE INSPECTOR TO ANSWER A SERIES OF QUESTIONS IN ORDER TO EVALUATE THE PART FOR AREAS OF REPAIR. FINALLY A WCD IS GENERATED FOR THE REPAIR OF THE PART

PROPOSED METHOD: (1) ADD A MOUSE TO THE APIS DISPLAY TERMINALS SO INSPECTORS CAN MARK THE LOCATION OF NEEDED REPAIRS ON THE DISPLAY AND STORE THE INFORMATION DURING AN ENGINEERING REVIEW, THE INFORMATION COULD BE RECALLED AND CORRECTED WITH STORED INFORMATION OF OTHER PARTS TO REVEAL WHERE ANY CONSISTENT FAILURES IN THE PART MAY BE OCCURRING. ENGINEERING COULD THEN BUT-FP-SS THE PART IN THE FILES OF CONSISTENT FAILURES. BENEFIT OF CHANGE FEWER REPAIRS AND IMPROVED PARTS WITH LESS EQUIPMENTS AND MATERIAL USAGE RESULTS IN COST SAVINGS. IMPROVEMENTS IN PART DEFECT IDENTIFICATION & PART DESIGN AND/OR REPAIR WILL IMPROVE QUALITY

PRODUCTIVITY IMPROVEMENT SUMMARY: (1) LESS REPETITIVE FAILURES WILL RESULT IN GREATER OVERALL REFURBISHMENT OUTPUT WITHOUT INCREASING THE WORKFORCE (2) EOEI IMPROVEMENT WILL RESULT FROM FEWER REPETITIVE FAILURES. (3)

IMPROVEMENT RECOMMENDATIONS

— AS IS CONDITION: PLANNING PROCEDURES FOR THE SAME OR SIMILAR PARTS ARE WRITTEN DIFFERENTLY BY DIFFERENT PLANNERS. THIS MAKES A REVIEW OF THESE OPERATIONS DIFFICULT AND COMPLEX WHEN TRYING TO CHARACTERIZE THE EQUIPMENT, MANPOWER, AND CYCLE TIMES.

— RECOMMENDATION — PLANNING SEQUENCES SHOULD BE AS STANDARDIZED AND CONSISTANT AS POSSIBLE FOR LIKE PROCESSES AND OPERATIONS. PLANNERS NEED TO BE COORDINATED THROUGH TRAINING AND SUPERVISED DIRECTION AND WORK REVIEW UNTIL PLANNING SEQUENCE STANDARDIZATION IS ACHIEVED.

5/22/89

TECHNOLOGY INSERTION ENGINEERING SERVICES PROGRAM

TI PROGRAM COST BENEFIT ANALYSIS REPORT

ALC SA DATE 15 May 89
RCC MATRS ITEM NO. _____
NOUN Carts _____

J. Eaton

CONTROL NO. SA-26

TYPE PROPOSAL

- QUICK FIX # 9
- FOCUS STUDY
- OTHER _____

CURRENT METHOD

4 Wheel carts with 3 shelves (18" x 30" x 30") are used throughout the MHTPS/1 Area for moving parts and for plastic boxes. There is a shortage of these carts.

PROPOSED METHOD

Procure additional carts.

BENEFIT OF CHANGE

Expedite parts movement saving time lost by Inspectors in walking around looking for a cart to use.

PRODUCTIVITY IMPROVEMENT SUMMARY

Increase production by saving wasted manhours.

J. Eaton
CONTROL NO. SA- 5

TECHNOLOGY INSERTION ENGINEERING
SERVICES PROGRAM

TI PROGRAM
COST BENEFIT ANALYSIS REPORT

TYPE PROPOSAL

QUICK FIX #8

FOCUS STUDY

OTHER

ALC SA DATE 12 May 89
RCC PARTS ITEM NO. _____
NOUN Train Parts Storage

CURRENT METHOD

Incoming and outgoing parts in the Inspection & Cleaning areas are placed in 24 X 24 X 10" plastic boxes and stacked on each other throughout each area. Workers can not easily locate their desired part but must shuffle the plastic boxes around so they can locate the necessary part.

PROPOSED METHOD

Purchase or locally manufacture racks for temporary storage of boxes. Also designate areas for certain parts to be in temporary storage so they can easily be located.

BENEFIT OF CHANGE

Area is neat and time saved by workers in locating parts.

PRODUCTIVITY IMPROVEMENT SUMMARY

Area improvement plus increased production at minimal cost.

5/22/87

TECHNOLOGY INSERTION ENGINEERING SERVICES PROGRAM

TI PROGRAM COST BENEFIT ANALYSIS REPORT

ALC SA DATE MAY 12 1987

RCC MATRS1 ITEM NO.

NOUN Sonic Cleaner

J. Eaton

CONTROL NO. SA-14

TYPE PROPOSAL

- QUICK FIX #7
- FOCUS STUDY
- OTHER

CURRENT METHOD

A sonic cleaner is located approximately 50 feet away from the basic cleaning area. The equipment requires a lot of usage and requires the operator to constantly walk back and forth.

PROPOSED METHOD

Relocate the sonic cleaner to a point within the basic cleaning area.

BENEFIT OF CHANGE

Reduce employee fatigue due to walking and carrying or pushing parts.
Reduce transit time.

PRODUCTIVITY IMPROVEMENT SUMMARY

Easier and faster way to clean certain parts.

5/22/89

TECHNOLOGY INSERTION ENGINEERING SERVICES PROGRAM

TI PROGRAM COST BENEFIT ANALYSIS REPORT

ALC SA DATE 10 May 89
RCC MITSU ITEM NO. _____
NOUN SPT

J. E. A. 111 6-12
CONTROL NO. SA-1 2

TYPE PROPOSAL

- QUICK FIX #5
- FOCUS STUDY
- OTHER

CURRENT METHOD

The individual assigned as the Eddy Current Inspector is not familiar with those Work Control Documents (WCDs) that specify eddy current inspection.

PROPOSED METHOD

Suggest his supervisor review appropriate WCDs with the designated Eddy Current Inspector and one or two alternates.

BENEFIT OF CHANGE

Increase operator efficiency.

PRODUCTIVITY IMPROVEMENT SUMMARY

Reduce operator time and increase production.

— PERHAPS HALF OR MORE OF THE TOTAL WORK BEING PERFORMED BY THE MATPSI GRADE LEVELS 09 & 10 INSPECTORS IS VISUALLY INSPECTING PARTS FOLLOWED BY REMOVING NICKS & BURRS, FOLLOWED BY A SPTT CORROSION TREATMENT. SOME PARTS (~25%) ARE VISUALLY CONDEMNED. A QUICK FIX OPPORTUNITY WOULD BE TO HAVE THIS WORK PERFORMED ON THESE PARTS BY GRADES 05, 06, OR 07 LEVEL INSPECTORS IMMEDIATELY FOLLOWING CLEANING, THUS FREED THE 09 & 10 LEVEL INSPECTORS TO JUST PERFORM THE HIGH SKILL LEVEL DIMENSIONING WORK, FOR WHICH ONLY THEY ARE SPECIALLY QUALIFIED TO DO.

— 25% OF ALL PARTS NOW GO DIRECTLY TO THE PARTS PAIL WITHOUT ANY INSPECTION AFTER CLEANING. THESE PARTS ARE ONLY INSPECTED JUST PRIOR TO INSTALLATION BY 09 & 10 GRADE LEVEL MECHANICS WHO SPEND MUCH OF THEIR TIME IN CONDEMNING PARTS THAT ARE UNACCEPTABLE.

A QUICK FIX OPPORTUNITY IS TO FIRST HAVE THESE PARTS VISUALLY INSPECTED BY LOWER GRADE INSPECTORS (AS ABOVE) IMMEDIATELY FOLLOWING CLEANING & SEND ONLY SERVICEABLE PARTS DIRECTLY TO THE PARTS PAIL. THIS WILL FREE THE HIGHER GRADE MECHANICS TO SPEND THEIR TIME INSTALLING PARTS WITHOUT HAVING TO ADDITIONALLY USE THEIR TIME TO CONDEMN THEM AS WELL.

PIO QF

DATE: 5-15-89

ENGINEERING DATA (PIO)

PRODUCT: F15 AMAD LH & RH
RCC CODE: MATP33
WCD: TA007K + TA278K
PCN: 08004A + 08005A
DISP./FS STATION:

These disassembly WCD's on the AMAD need to be revised to place the present operation no 40 at the start of the process. This would eliminate useless work on units which are subsequently condemned during that operation. Approximately one half hour of effort per condemned unit would be saved. Note: The more experienced operators are generally doing this now.

APH

TECHNOLOGY INSERTION ENGINEERING
SERVICES PROGRAM

TI PROGRAM
COST BENEFIT ANALYSIS REPORT

ALC SA DATE 05-15-81
RCC MTP ITEM NO. PCN# 11A # 0800 SA
NOUN WCD # TAD07K # TA278K

Same as 0.38
A. Holm
CONTROL NO. SH-039

TYPE PROPOSAL

- QUICK FIX
- FOCUS STUDY
- OTHER _____

CURRENT METHOD

AMADs are currently being stocked on end some parts being condensed in step to, in in position step.

PROPOSED METHOD Disassembly WCD's on the AMAD need to be revised to place the present operation #110 at the start of the process. Inspect before working on unit.

BENEFIT OF CHANGE This would eliminate useless work on units which are subsequently condemned during that operation. The unit is only one-half (1/2) hour of effort per condemned unit which would be saved. NOTE: The more experienced operators are generally doing this now.

PRODUCTIVITY IMPROVEMENT SUMMARY

TECHNOLOGY INSERTION ENGINEERING SERVICES PROGRAM

TI PROGRAM COST BENEFIT ANALYSIS REPORT

TYPE PROPOSAL

QUICK FIX

FOCUS STUDY

OTHER _____

ALC SA DATE 8/10/89

RCC MATRI ITEM NO. VARIOUS

NOUN PARTS HANDLING DAMAGE

CURRENT METHOD PREVENTABLE MINOR DAMAGE OCCURS WITH VARIOUS PARTS DUE TO MISHANDLING. PARTS WERE OBSERVED BEING THROWN APPROXIMATELY SIX FEET INTO A PLASTIC BASKET ON THE FLOOR AFTER REMOVAL FROM CLEANING VATS. PARTS INCUR DENTING AND/OR BENDING WHICH DEGRADES PART AND MAY REQUIRE MINOR REPAIR.

PROPOSED METHOD ELIMINATE CARELESS HANDLING PRACTICES VIA SUPERVISORY TRAINING OF MECHANICS, UNANNOUNCED WALK-THROUGH INSPECTIONS BY SUPERVISOR, AND POSTING OF NOTICES ENCOURAGING CONCERN FOR QUALITY THROUGH PROPER HANDLING

BENEFIT OF CHANGE

- REDUCTION OF TIME REQUIRED TO REPAIR DAMAGE IN INSPECTION AND BACKLOGS.
- PREVENTING DAMAGE WHICH MIGHT GO UNDETECTED AND WHICH COULD CONTRIBUTE TO SUBSEQUENT EQUIPMENT MALFUNCTION OR FAILURE
- NO COST TO IMPLEMENT

PRODUCTIVITY IMPROVEMENT SUMMARY

- REDUCE FLOW TIME
- POTENTIALLY INCREASE OUTPUT DUE TO LESS REPAIRS/SCRAP.

TECHNOLOGY INSERTION ENGINEERING
SERVICES PROGRAM

CONTROL NO. SA-570

TI PROGRAM
COST BENEFIT ANALYSIS REPORT

TYPE PROPOSAL

- QUICK FIX
- FOCUS STUDY
- OTHER

ALC SA DATE 8/3/89
RCC NARPSI ITEM NO. WCD
NOUN DESIGNATE CERTAIN PLANNERS TO SPECIALIZE IN INSPECTION PROCESSES.

CURRENT METHOD Presently there are (9) planners responsible for preparing WCD's for NARPSI inspection occur. As a result, WCD's written to specify the inspection processes are written differently to accomplish the same inspections.

PROPOSED METHOD Recommend that certain planners be designated to specialize in inspection techniques, instruments and equipment and become experts in inspection processes.

BENEFIT OF CHANGE Standardization of WCD's which will reduce the number of different WCD's specifying same inspection processes. Reduction in planning support as a result of specialization by a few as opposed to generalization by many. Reduced cycle time to provide planning. Better utilization of inspection instruments, equipment and manpower. Standardization of inspection procedures between the (3) inspection lines.

PRODUCTIVITY IMPROVEMENT SUMMARY

Reduce indirect planning support, reduce planning cycle times, achieve standardization of WCD's and improve equipment utilization. These improvements will ultimately result in increased man-hour capacity.

TECHNOLOGY INSERTION ENGINEERING SERVICES PROGRAM

8.6. V E-TOTTEN

CONTROL NO. SA-c 2 SA052

TI PROGRAM COST BENEFIT ANALYSIS REPORT

TYPE PROPOSAL

ALC SA DATE 8/13/89
RCC MATPSI ITEM NO. GTE AND STAGER PARTS
NOUN CHEMICAL CLEANING

- QUICK FIX
- FOCUS STUDY
- OTHER

(FROM ENG'G NOTES)

CURRENT METHOD MANY ALUMINUM AND STAINLESS STEEL PARTS DISASSEMBLED FROM GTE'S, STAGERS AND OTHER END ITEMS ARE SENT BY MATPSI IN BLOG 309 TO MAE ICB IN BLOG 360 FOR CHEMICAL CLEANING AND PAINT REMOVAL. MAE ICB IS IN ENGINE DIVISION AND ASSIGNS HIGHER PRIORITY TO AIRCRAFT ENGINE CLEANING THAN TO MATPSI WORK. EXCESS FLOW TIME RESULTS DUE TO TRANSIT AND QUEUE TIME. SOME PARTS RETURNED AT BLOG 360 ARE RETURNED TO BLOG 309 WHERE THEY SIT IN WEATHER OUTSIDE. RECLEANING AND SUBBLASTING IS OFTEN REQUIRED BECAUSE OF DRIED RESIDUE, RUST OR CORROSION.

PROPOSED METHOD

CONSTRUCT A SMALLER SCALE CHEMICAL CLEANING FACILITY IN BLOG 309 (CONCURRENT WITH LIFT CLEAN CLEANING FACILITY MODIFICATION, IF POSSIBLE) TO CLEAN MAT PARTS. INSTALL PROPER TOXIC WASTE COLLECTION AND DISPOSAL CAPABILITY TO COMPLY WITH EPA REQUIREMENTS. INSTALL PROPER VENTILATION SYSTEM FOR CHEMICAL FUMES.

BENEFIT OF CHANGE

- 1) CONTROL OF CLEANING PROCESSES REQUIRED FOR MAT PARTS; HIGHER PRIORITY, REDUCED FLOW TIME
- 2) REDUCE RECLEANING/REWORK HOURS
- 3) PARTS REMAIN IN FLOW AT RATE CLOSER TO OTHER PARTS FROM ORIGINAL END ITEM.

PRODUCTIVITY IMPROVEMENT SUMMARY

- 1) REDUCED FLOW TIME
- 2) REDUCED WORK IN PROCESS INVENTORY, HENCE REDUCED COST
- 3) BETTER QUALITY CONTROL - LESS REWORK COST
- 4) SHORTEN OR REMOVE QUERIES.

GENERAL: BLDG 329 & 375

- 7F#4
1. Operations of fork lift equipment needs to be reviewed for safety reasons. Observed careless and imprudent operation. Provide additional mirrors at aisle (blind) intersections.

Pedestrian traffic aisles should be provided and marked to allow efficient flow of traffic for both employees and vehicular traffic.
 2. WCD's are based on the TO Manuals and don't necessarily reflect what actually is being done in Production.
 - ° TO should be used as a reference document only when WCD is being written but Planner needs to review floor operations to establish proper sequence of operations and proper tool usage.
 - ° Tools should be called out on WCD to aide operator and eliminate unnecessary research of TO's by operators.
 - ° "Planner is responsible for accomplishing the think time so that operator only has to read and do."
 - ° In some cases, TO's are out of date calling for non-existent tools and processes and do not agree with tools that are being used.
 - ° WCD's are responsibility of Planners and do not appear to be dedicated to accuracy and reliability. WCD's are inconsistent in detail from Planner to Planner. One calls out tool and other will refer to TO by paragraph.
 3. Mechanics time observed to be not fully utilized.
 - ° Allowed to spend too much time away from work station.
 - ° Chasing parts they need.
 - ° Long discussions between operators that didn't pertain to work (non-related subjects to work).
 - ° If they didn't have an item to work on they sat around.

Opinion: Most supervision has been elevated from mechanics force/ranks and continue to foster above problems; due to lack of management training or "don't rock the boat syndrome".

4. WCD - Inaccurate History - When an operation was completed the operator didn't stamp it off as complete at that time but waited until job was complete and then stamped operations at that time. Would give a false reading as to when work was actually completed.

F.S.#3 5. Inspection Area - Large backlog of work stored in tote boxes.

6. Parts System -

- While in Building 329, part of the Parts Pool was relocated. (GTE PARTS)
- Generally, parts storage and retrieval systems appeared to be antiquated and very inefficient. Many tote boxes sitting around.
- Appeared to have very little organization.
- Did not spend much time investigating this area therefore above observations are first impressions.
- In all RCC's it was mentioned that part shortages are one of their biggest problems.
- Many kits supplied to production with part shortages and shortages not identified and weren't discovered until mechanic started assembly.
- THIS AREA WOULD MAKE A GOOD FOCUS STUDY.
- Have plans for carousel but don't think funding approved at this time.

7. WCD's should specify labor grades by operation. WCD's do not specify lowest labor grade required to perform an operation. Therefore, many instances observed where highest mechanic grade is performing the lowest labor grade work.

FS # 1 8. Improper handling and kitting of parts by material system has caused damage to parts therefore, mechanic inspects all parts before using part in assembly.

- FS#3 9. Cleaning of Parts - Even though parts are sent to Building 360 for cleaning, many parts are recleaned in Building 329. Either provide Building 329 with their own total cleaning facility or make sure parts are cleaned thoroughly in Building 360 and eliminate cleaning facility in Building 329.
10. Sheltered work shops could be used to sort small expensive parts and also do simple inspections.
11. Training - It appears there are Journeymen Mechanics that are not fully qualified to perform all aspects of their job classification. There seems to be a perponderance of WG-10's verses other labor grades. Is there justification for this situation?
- FS# ~ 12. Tools - Mechanics stated that bad/worn tools are turned in to tool crib and replacement tools issued are just as bad/worn as tools turned in. Its quite a hassle to get a good/useable tool.
- ° Many tools are poor quality.
 - ° Operators prohibited from bringing own tools in.
13. Facility Layout - Each major part has its own room/area (air conditioned). It appears better utilization of space and manpower could be achieved if some of these were combined.
- ° Not overly impressed with general flow and movement of material.
14. Setting up equipment and room with new equipment for purpose of doing their own balancing of rotating components. Is this redundant with existing capabilities?
- QF# 15. There's a lot of material movement accomplished by WG-10 mechanics that could be handled by a lower grade material handling personnel if these people existed.
16. Time Standards - In most cases observed, standards are in gross terms and can not be identified by operation sequence.

17. Parts Pool - Observed material personnel ~~kitting~~ parts. Totes boxes on floor and personnel was placing parts in each tote box. This area appears to need investigation to improve productivity. (Comments made about carousels, reference paragraph 6).

18. Material - Engineer responsible to review ~~re~~rejected parts for possible rework of rejected parts. This area is understaffed, therefore there appears to be a large number of parts in this area. This is area ~~Bin~~ C Condemned Parts. MM Engineer can disposition to rework in house, send outside for rework or condemn.

ALC

1. 3/31/89
Joined Day 329 with TI Team members for their familiarization of the facility.
2. Requested workload requirements for FY 88? and latest facility layouts available from Juan Barga and Don Dominguez MATEA. (x54667)

3. 4/3/89
Conducted TI Program briefing requested by Don Payton MAT Division Chief at 3:00 PM. He wanted to know what the purpose of our trip and what was to be accomplished.

Conway gave a synopsis of what has happened with the contract to date from the ACC point of view.

I gave my presentation as to what had transpired from MDMSC point of view and in detail put down of the effort we are to put forth.

Attendees: Don Payton - Division Chief - MAT
Col. Blackwell - Deputy to Division Chief - MAT-1
Fern Jover - Deputy Chief - MAT
Jerry Klear - Engineering Branch Chief - MATE
John Pike - Section Chief - MATEA
Angels Perez - Deputy Production - MATTP
Juan Barga - Unit Chief Planning - MATEA/6
Danny Dominguez - Engineer - MATEA/6
Bill Conway - TI Liaison - MAWET

Karl Mary - Site Leader - MDMSC
Allen Holm - I.E.
Kamal Attaria - I.E.
Pat Chambers - I.E.
Bill Morgan - I.E.

4. We have been provided a Conference Room its set up as our office in the sub-assembly area of MAT PGB.

A/C doesn't work.

A phone installed but doesn't have an outside line. We have to go thru operator or use Class A phone in Danny Dominguez' office.

5. 4/5/89
Ed Hill, Planner, MATEA came to office and informed us that he was assigned by Mike Ceres, Function Chief, MATEA to support MAAT PSI and MATPSS.

SA-ALC

RCC: GENERAL

NAME: E. R. MARY

4/5/89 (Continued)

I gave him a brief indoctrination about the TI Program.

First info I requested from Ed Hill was info about skill codes and level.

6.

4/6/89

Problem with Badges for Restricted Area Bldg 375. CPI people and R. Attaria do not have Secret Clearances. It won't be a problem for A. Holm and R. Britty because their Secret Clearances have been forwarded to Kelly AEG Security. Conway and Judy Parsell working on this problem.

Jim Briers, Security Manager x52876.

7.

4/10/89

Get Contractors badge resolved.

Have to fill out Form 496 again. Originals can't be found. This form is required to get Base Badges.

Form 1199 Badges which permit access to Restricted Area Bldg 375 will not be issued to Morgan, Attaria and Chambers.

8

Requested G017 & G011 reports for MTR and MTRF from Dan Danglek.

9

4/20/89

Jimmie Brown, Bill Conway and Karl Mary met with Ray Pargow Senior Chief Planning MATEA Bldg 375.

Jimmie briefed Pargow on TI Program.

Ray stated he has people vs workload problems.

Ed Himes is candidate to support Taguchi and simulation and modeling.

Ken Janda took Jimmie on tour of MABPSA, SC, & SP.

Jimmie Brown briefed Ed Vander Posten Branch Chief MATEA to solicit his support for TI Program.

-ALC

10

4/21/89

The lack of a Class A telephone is creating a hardship.

11

6/10/89

General observation for Bldg 329 material handling and Parts Pool.

- Mechanics chase down parts shortages.
- Mechanics move parts and assemblies.
- Parts in tote boxes stacked in one order and in disorder.
- Some areas have racks for tote boxes and other areas don't.
- Some parts and tote boxes sitting around and don't appear to have a home.
- Mechanics spend much time inventorying bins to determine if they have all parts and to identify part shortages before starting work.
- Parts Pool doesn't appear to be neat and orderly or organized, and leads you to doubt the efficiency and accuracy of the work that is being accomplished.
- Without exception, all mechanics interviewed stated that their biggest problem is part shortages.
- A Carousel material storage system would greatly enhance the Parts Pool operation. More parts would be concentrated in much less floor space and make parts retrieval/hitting less labor intensive. It would also provide a simple "First In - First Out" system if so desired.

Note: Comments have been made by ALC personnel that a Carousel System has been considered for Bldg 329.

- Conditions as described above would require extensive analysis to validate and should be considered for a Focus Study.

SA-ALC

RCC: MATPSE

NAME: E. R. MARY

1

4/6/89

Jerry Keller - Unit Chief, MATPSSI & MATPSS informed of change to RCC workload assignments and facility. MATPSE is being expanded to include full disassembly of PCN's appearing on 80/70 list for MATPS.

note: The disassembly for (3) of the (9) PCN's was already assigned to MATPSSI and the remaining (6) are being transferred at this time.

4/7/89

Talked to R. Navros, MDMSC St. Louis, and he stated that above changes need to be documented.

2

4/13/89

meeting with Sam Bonglesse, MATEA, Ed Dill, MATEA, Bill Conway, MAMF, Bob Buttry, MDMSC, and Karl Mary, MDMSC, to discuss possible ways to characterize "AS IS" condition of the inspection portion of MATPSE.

(500) parts not including (3) GTE'S.

Ed Dill still working on determining number of parts that were inspected on APIS and visual.

Instead of profiling individual parts, it was agreed we could group like items into families and profile the process for each family.

3

5/3/89

Chuck Bonglesse, MDMSC developed another concept for characterization of inspection area of MATPSE.

Chuck made presentation to ALC concurrence.

Attendees:

John Lake
Ed Dill
Bill Conway
Sam Bonglesse
Juan Bahga
Bob Buttry
Jim Patch
Chuck Bonglesse
Karl Mary.

5/22/89

4. During the "As Is" characterization of the Inspection portion of MATPSE, the following problem has been recognized.

Approximately (75% or 600 parts) of the detail parts from the disassembly of (12) PCN's pass thru the inspection area of MATPSE.

These (12) PCN's are the responsibility of (9) different Planners, as a result, WCD's written to specify the inspection processes are written differently to accomplish the same inspections. (See addition on next page).

Inspection is a technology/discipline requiring certain background/expertise and shouldn't be the responsibility of multiple Planners that do not possess the detailed background required to properly define inspection processes. In addition, there are considerable tools and equipment utilized to accomplish inspection processes, much of which is technically complex and requires expertise to properly utilize.

Recommendation: To alleviate above problem, it is suggested that certain Planners be designated to specialize in inspection techniques and equipment and become experts in inspection processes.

Several things will be gained. Standardization of WCD's which will reduce the volume of different WCD's accomplishing same inspection processes. Reduction in support due to

specialization by a few as opposed to generalization by many. Reduced cycle time to provide planning (wcd's). Better utilization of inspection equipment and manpower. Standardization of inspection processes between the (3) inspection lines.

Attached are samples of wcd's to indicate the inconsistencies between wcd's to accomplish same inspection process

ADD TO PARA 1.2

Presently the Inspection Area is divided into (3) areas: GAs TURBINE ENGINES
STARTERS
FIS / FIG

Each area is supported by multiple planners and each area has different planning to accomplish same inspections

MAG, VIS, DIM.

2. PSSD/RCC MTPSI | 3. MATERIAL STEEL | 4. MIC | 5. ERRC | 6. QTY | 7. SCHED DT 89104 | 8. COMP DT
 9. MODEL/DESIGN/SERIES | 10. NOUN GEAR ASSEMBLY, GENERATOR DRIVE | 11. ITEM SERIAL NR
 GTCP85-180

12. BCN 12A. SER NO. _____ | 13. TECH DATA/OPTIONAL 2G-GTCP85-43-6/-7

14. PART NUMBER 15. STOCK NR. 16. PDN 17. BCN BASKET NO. 14
 75331-4 30200040I18569YP 13095A 827193 <-5> ENGINE
 75331-4 30200040I18569YP 07604A 842513 <-7> ENGINE

18. DISP-19. PDN/STATION OP NO. 20. WORK TO BE ACCOMPLISHED 21. MECH 22. 'P' 23. 'Q'

18. DISP-19. PDN/STATION	19. OP NO.	20. WORK TO BE ACCOMPLISHED	21. MECH	22. 'P'	23. 'Q'
PSI6	010 MTPSI	MAGNETIC PARTICLE INSPECT IAW WP 005 00	N		
PSI6	020 MTPSI	VISUALLY INSPECT IAW WP 004 00, PARA. 66, & FIGURE 1. (1) CRACKS (2) CORROSION (3) CHIPPED, BROKEN, WORN GEAR TEETH. (4) NICKS, SCORING, GOUGING OR BURRS. (5) LOOSENESS BETWEEN GEARS B & C, WITH PINS AND SCREWS INSTALLED. (6) PIN HOLES FOR ENLARGEMENT.	M		
PSI6	030 MTPSI	DIMENSIONALLY INSPECT IAW WP 004 00, PARA. 66, & FIGURE 1. (1) DIAMETER -A- (2) DIAMETER -D- (3) GEAR -C- TEETH (4) GEAR -B- TEETH	M		
PSI6	040 MTPSI	CORROSION TREAT SERVICEABLE GEARS BY OIL DIPPING. N/R IF REPAIR IS NEEDED	M		
C8 T19	050 MATSE	ROUTE TTO STA. B7, BLDG. 324.			
B7	060 MATSN	RECEIVE AND ROUTE.			
B12 T29	070 MTPNC	REPLACE DAMAGED GEARS, DRILL AND REAM PIN HOLES IF EITHER GEAR IS REPLACED IAW WP 004 00, PARA. 7.	M		
B12	075 MTPNC	CORROSION TREAT GEARS AFTER REPAIR BY SPRAYING WITH OIL.	M		
B7 T07	080 MATSN	ROUTE TTO STA. C8, BLDG. 329.			
C8 T19	090 MATSE	RECEIVE AND ROUTE TO PARTS POOL			
B4 T57	100 MATSE	PARTS POOL			

MATEG DAN HAYWARD 03 SEPT. 87
 MTPSI JOHN H. CASTILLO 03 SEPT. 87

TATION OP NO.	20.WORK TO BE ACCOMPLISHED	21.MECH	22'P'	23'Q'
	MATSE_ ALMA R. MENDEZ 03 SEPT. 87_ MAQTC_ GILBERT F. HERRERA 03 SEPT 87_ MASTER ON FILE IN MATEG / 54667			

MAG, VIS, DIM

* WORK CONTROL DOCUMENT TG881A * 1. DATE 87270 PAGE 1 OF 1 PAGES

2. PSSD/RCC | 3. MATERIAL | 4. MIC | 5. ERRC | 6. QTY | 7. SCHED DT | 8. COMP DT
MTPG9E | STEEL | | | | 89104 |

9. MODEL/DESIGN/SERIES | 10. NOUN | 11. ITEM SERIAL NR
GTC85-56, 70A, 71 | GEARSHAFT, BEVEL |

12. BCN 12A. SER NNO. _____ | 13. TECH DATA/OPTIONAL
2G-GTC85-33-6

14. PART NUMBER	15. STOCK NR.	16. PDN	17. BCN
693120	28335000731238	13494A	827940 - 5 6
693120	28335000731238	3081A	827942 - 7 0
693120	28335000731238	13111A	827944 - 7 1
693120	28335000731238	13495A	827946 - 7 2
693120	28335000731238	13496A	827948 - 1 1 6
693120	28335000731238	13255A	827950 ACC CASE MISTR

18. DISP-19. PDN/
STATION OP NO. | 20. WORK TO BE ACCOMPLISHED | 21. MECH | 22. P' | 23. Q'

18. DISP-19. PDN/ STATION OP NO.	20. WORK TO BE ACCOMPLISHED	21. MECH	22. P'	23. Q'
	BASKET 13			
PSI6 001 MTPSI	CIRCLE PROPER P/N, NSN, C/N ABOVE	M		
PSI6 005 MTPSI	MAG. PART. INSPECT IAW WP 005 00.	N		
PSI6 010 MTPSI	VISUAL INSPECT IAW WP 004 00, #6, A.	M		
PSI6 020 MTPSI	DIMENSIONALLY INSPECT IAW WP 004 00, #6, B, & FIG. 1.	M		
PSI6 030 MTPSI	REPAIR/DEBURR & TREAT IAW WP 003 00.	M		
B4 050 329 MATSE	ROUTE TO PARTS POOL			

MMATEG BRENT CASTLE 29 SEPT 87
 MTPSI ALBERT MUSQUIZ 30 SEPT 87
 MMAQTC GARY E. BOECKER 2 OCT 87
 MMATSE ESTER M. BUENTELLO 2 OCT 87
 MMATER COPY ON FILE MATEG/5-4667

VIS, DIM

2. EPSSD/RCC | 3. MATERIAL | 4. MIC | 5. ERRC | 6. QTY | 7. SCHED DT | 8. COMP DT
MMTPG9E | STEEL | | | | 89104 |

9. MODEL/DESIGN/SERIES | 10. NOUN | 11. ITEM SERIAL NR
GTC85-56, 70, 71, | RETAINER, BEARING |

12. BCN 12A. SER NO. | 13. TECH DATA/OPTIONAL
| 2G-GTC85-33-6
2G-GTCP85-53-6 = 397

14. PART NUMBER	15. STOCK NR.	16. PDN	17. BCN
74 517	2835007302154	13494A	827572 -56
74 517	2835007302154	13081A	829380 -70A
74 517	2835007302154	13111A	829381 -71
74 517	2835007302154	13495A	829382 -72
74 517	2835007302154	13496A	829383 -116
74 517	2835007302154	13094A	829384 -397

18. DISP-19. PDN/
STATION OP NO. | 20. WORK TO BE ACCOMPLISHED | 21. MECH | 22 'P' | 23 'Q'

18. DISP-19. PDN/ STATION OP NO.	20. WORK TO BE ACCOMPLISHED	21. MECH	22 'P'	23 'Q'
	BASKET NO 9			
PPS16 005 MTPSI	CIRCLE PROPER P/N, NSN, C/N ABOVE.	M		
PPS16 020 MTPSI	VISUAL INSPECT IAW WP 004 00, #6, A.	M		
PPS16 030 MTPSI	DIMENSIONALLY INSPECT IAW WP 004 00 #6, FIG. 1.	M		
PPS16 040 MTPSI	REMOVE/REPAIR BURRS IAW WP 003 00, #7	M		
PPS16 050 MTPSI	CORROSION TREAT (OIL DIP) IAW T.O. 1-1-2 IF SERVICEABLE.	M		
EB4 060 MATSE	ROUTE TO PARTS POOL			

MATEG BRENT CASTLE 29 SEPT 87
MTPSI JOHN H. CASTILLO 01 OCT 87
MAQTC GARY E. BOECKER 02 OCT 87
MATSE ESTER M. BUENTELLO 02 OCT 87
MASTER COPY ON FILE MATEG/5-4667

VIS, DIM

* WORK CONTROL DOCUMENT TG890A * 1. DATE 87240 PAGE 1 OF 1 PAGES

2. PSSD/RCC | 3. MATERIAL | 4. MIC | 5. ERRC | 6. QTY | 7. SCHED DT | 8. COMP DT
MTPG9E | STEEL | | | | 89104 |

MODEL/DESIGN/SERIES | 10. NOUN | 11. ITEM SERIAL NR
GTC85-70A, 71 | SHAFT ASSY, FAN IDLER GEAR |

12. BCN 12A. SER NO. | 13. TECH DATA/OPTIONAL
| 2G-GTC85-33-6
| 2G-GTC85-33-7

14. PART NUMBER 15. STOCK NR. 16. PDN 17. BCN
693522 2835000731237 13081A 829878 -70A
693522 2835000731237 13111A 829879 -71
693522 2835000731237 13255A 829880 ACC CASE MISTR

18. DISP-19. PDN/
STATION OP NO. 20. WORK TO BE ACCOMPLISHED 21. MECE 22. 'P' 23. 'Q'

18. DISP-19. PDN/ STATION OP NO.	20. WORK TO BE ACCOMPLISHED	21. MECE	22. 'P'	23. 'Q'
	BASKET NO. 13			
PSI6 010 MTPSI	CIRCLE PROPER P/N, NSN, C/N ABOVE	M		
PSI6 020 MTPSI	VISUALLY INSPECT IAW WP 004 00, #6, A	M		
PSI6 030 MTPSI	DIMENSIONALLY INSPECT IAW WP 004 00, #6, B.	M		
PSI6 040 MTPSI	CORROSION TREAT (OIL DIP) IAW T.O. I-1-2. <i>E.V.I.S.I</i>	M		
B4 050 329 MATSE	ROUTE TO STA. B1, BLDG 301.			
B1 060 E40 MEIAA	APPLY DRY FILM LUBRICANT IAW WP 003 00, #7.	M		
B1 070 E40 MEIAA	ROUTE TO STA B4, BLDG 329.			
B4 080 329 MATSE	RECEIVE & ROUTE TO PARTS POOL.			

MATEG BRENT CASTLE 29 SEPT 87
MTPSI ALBERT MUSQUIZ 30 SEPT 87
MAQTC GARY E. BOECKER 2 OCT 87
MATSE ESTER M. BUENTELLO 2 OCT 87
MASTER COPY ON FILE MATEG/5-4667

VIS, DIM

2. PSSD/RCC | 3. MATERIAL | 4. MIC | 5. ERRC | 6. QTY | 7. SCHED DT | 8. COMP DT
MTPG9E | ALUM | | | | 89104 |

9. MODEL/DESIGN/SERIES | 10. NOUN | 11. ITEM SERIAL NR
~~GTC85-56-70A-71-397~~ | HOUSING, BEARING AND SEAL |

12. BCN 12A. SER NO. _____ | 13. TECH DATA/OPTIONAL
2G-GTC85-33-6
2G-GTCP85-53-6 = 397

14. PART NUMBER	15. STOCK NR.	16. PDN	17. BCN
693368	2835009393387	13494A	827510 -56
693368	2835009393387	Q3081A	830665-70A
693368	2835009393387	13111A	830666 -71
693368	2835009393387	13495A	830667 -72
693368	2835009393387	13496A	830668 -116
693368	2835009393387	Q3094A	830669 -397

18. DISP-19. PDN/
STATION OP NO. | 20. WORK TO BE ACCOMPLISHED | 21. MECH | 22 'P' | 23 'Q'

18. DISP-19. PDN/ STATION OP NO.	20. WORK TO BE ACCOMPLISHED	21. MECH	22 'P'	23 'Q'
	BASKET NO. 8			
PSI6 005 MTPSI	CIRCLE PROPER P/N, NSN, C/N ABOVE.	M		
PSI6 010 MTPSI	VISUALLY INSPECT IAW WP 004 00, #6, A.	M		
PSI6 020 MTPSI	DIMENSIONALLY INSPECT IAW WP 004 00, #6, B, & FIG. 1.	M		
PSI6 050 MTPSI	MINOR REPAIR IAW WP 003 00.	M		
C8 060 T19 MATSE	ROUTE TO STA B1, BLDG 301.			
B1 070 E40 MEIAA	RECEIVE & ROUTE TO SHOP (ANODIZE).			
B1 080 E40 MEIAA	APPLY ANODIZE COAT IAW MIL-A-8625D, TYPE II, AND WP 003 00, #7.	M		
B1 090 E40 MEIAA	ROUTE TO STA B4, BLDG 329.			
B4 100 T57 MATSE	RECEIVE & ROUTE TO PARTS POOL.			

MATEG BRENT CASTLE 3 AUG 1988
MTPSI ALBERT MUSQUIZ 4 AUG 1988
MEIAA DOUG KNEUPPER 9 AUG 1988
MAQTC GILBERT HERRERA 9 AUG 1988
MATSE ESTER BUENTELLO 9 AUG 1988
SIGNATURES ON FILE IN MATEG/54667.

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•

12. FEED/ROC 13. MATERIAL 14. MIC 15. ERRC 16. QTY 17. SCHED DT 18. COMP DT
 1.77896 | | | | |

MODEL/DESIGN/SERIES 110. NOUN 111. ITEM SERIAL NO
ATSC100-97-97A **ROD** |
 (148-151, FIG 3-1)

11. BCN 12A. SER NO. 113. TECH DATA/OPTIONAL
 | 2JA3-52-3 & APPL CHANGES

14. PART NUMBER 15. STOCK NR. 16. PDN 17. BCN
 3500915-11 2995010041759 **10718A 815204**
 3500915-11 2995010041759 12851A 815205

18. DISP-19. FN/STATION/OP NO. 20. WORK TO BE ACCOMPLISHED 21. MECH 22. P' 23. Q'

STARTER
 P/N 3505124-2-2 NSN 2995010389092
 P/N 3505124-3-1 NSN 2995011396642

PSI6 010 **VISUAL INSPECT IAW PARA 4-54** M
 MTPSI

020 **DIMENSIONAL INSPECT IAW PARA 4-27.2** M
AND 4.27.3
 MTPSI **RECORD DIMENSION RADIAL PLAY**
AXIAL PLAY

SERVICEABLE _____ UNSERVICEABLE _____
 IF SERVICEABLE ROUTE TO PARTS POOL

MATEAS R.A. GARCIA 25 JUL 86
 MTPSI ROBERT HERNENDEZ 25 JUL 86
 MATSS LUIS F. MERCADO 28 JUL 86
 MAQT JOE DE LA CRUZ 29 JUL 86
 ***** REV. 11 MAY 88 E. GARZA *****

2. PSSD/RCC 13. MATERIAL 14. MIC 15. ERRC 16. JOT 17. SCHED DT 18. SIMP DT
 MTPS95 1 STEEL 1 CL 1 N 1

MODEL/DESIGN/SERIES 110. NOJUN 111. ITEM SERIAL NR
 C100-87 1 GEAR SPUR (3 EA) 1
 (104, FIG 2-4)

12A. SER NO. 113. TECH DATA/OPTIONAL
 2JAE-238-3 & APPL CHANGES

15. STOCK NR. 16. PDN 17. BCN
 0269 3020008668034Y010598A 815721

19. DISP-19. PDN/
 TATION/OP NO. 20. WORK TO BE ACCOMPLISHED 21. MECH 22. P 23. Q

010 MTPSI	MAGNETIC PARTICLE INSPECT IAW PARA. 2-24.	N	
020 MTPSI	INSPECT IAW PARA. 2-12	M	
	SERVICEABLE _____ UNSERVICEABLE _____ IF SERVICEABLE ROUTE TO PARTS ROOM		

MATEAS MOSES ESCOBEDO 30 NOV 88
 MTPSI PRINCE H. AUTRY 30 NOV 88
 MATSS TERRY B. QUINTERO 30 NOV 88
 MAQT JEAN SHERWOOD 30 NOV 88

*****B14 *****
 2. PSSD/RCC | 3. MATERIAL | 4. MIC | 5. ERRC | 6. QTY | 7. SCHED DT | 8. COMP EDT
 MTPS9S | STEEL | | | | | |

MODEL/DESIGN/SERIES | 10. NOUN | 11. ITEM SERIAL NR
 CPS-02 MOD | GEARSHAFT, SPUR |
 (4, FIG 7-2)

12. BCN 12A. SER NO. | 13. TECH DATA/OPTIONAL
 | 2JA3-22-3

14. PART NUMBER 15. STOCK NR. 16. PDN 17. BCN
 692218-1 3040000667887YQC04542A B16610

18. DISP-19. PDN/
 STATION | OP NO. | 20. WORK TO BE ACCOMPLISHED | 21. MECH | 22. 'P' | 23. 'Q'

B14		STARTER P/N 701175C NSN 2995001727659			
PSI6	010 MTPSI	MAGNETIC PARTICLE INSPECT IAW FIG 7-2 INDEX 4, AND PARA 2-48.	N		
PSI6	020 MTPSI	VISUAL INSPECT IAW FIG 7-2, NOTE 1) C & D, AND PARA 2-57.	M		
PSI6	025 MTPSI	DIMENSIONAL INSPECT IAW FIG 7-2, NOTE 1) A & B.	M		
PSI6	030 MTPSI	REMOVE NICKS AND BURRS.	M		
PSI6	040 MTPSI	DIP IN MIL-L-7808 OIL AND PUT IN PLASTIC BAG IAW PARA 2-77.	M		
PSI6	045 MTPSI	ROUTE TO STA C-2, BALANCING ROOM.			
C-2	060 MTPSS	FOR REASSEMBLY, PART OF TURBINE ROTOR ASSEMBLY.			

MATEA EDWARD GILL 26 SEP 88
 MTPSI D.V. BORREGO 26 SEP 88
 MATSS TERRY B. QUINTERO 26 SEP 88
 MAQT GILBERT F. HERRERA 26 SEP 88
 *****MASTER WCD ON FILE*****

2.PSSD/RCC 13.MATERIAL 14.MIC 15.ERRC 16.QTY 17.SCHED DT 18.COMP DT
 | MTPSS | STEEL | | | | | |

MODEL/DESIGN/SERIES 110.NOUN 111.ITEM SERIAL NR
~~110. NOUN~~ | ~~BEARING SHAFT (16-334795)~~

12.BCN 12A. SER NO. 113.TECH DATA/OPTIONAL
 | | | 2JA16-4-3

14.PART NUMBER 15.STOCK NR. 16.PDN 17.BCN
 5005253 2835010537794 ~~12712A~~ 5560

18.DISP-19.PDN STATION/OP NO. 20.WORK TO BE ACCOMPLISHED 21.MECH 22.P 23.Q

ACCESSORY DRIVE GEARBOX
 P/N 5004451H NSN 2835012355249

***** SENT TO HOLDING AREA *****
 *
 * ***DO NOT CONDEMN***
 * IF PART FAILS INSPECTION CRITERIA *
 * ANNOTATE REASON ON DD FORM 1577-2 *
 * AND ROUTE PART TO MATERIAL REVIEW *
 * CASE FOR MATE/MMPR REVIEW *

PS16	010 MTPSI	VISUALLY INSPECT IAW PARA 5-6Z	M
PS16	020 MTPSI	MAGNETIC PARTICLE INSPECT IAW PARA 5-12.	V
PS16	030 MTPSI	DIMENSIONAL/VISUAL INSPECT IAW FIG 5-24.	M
		ROUTE TO F16 PARTS POOL.	

MATE# LOUIS P. QUINTANILLA 4-04-89
 MTR# EDWARD N. GOMEZ 4-07-89
 MATE# JESSE LOPEZ 4-08-89
 MAQT D. S. HERNANDEZ 4-08-89
 ***** MASTER WCD IS ON FILE *****

SSD/RCO 3.MATERIAL 14.MIC 15.ERFD 16.QTY 17.SCHED DT 18.COMPR DT
 TFS95 | STL | | | | |

MODEL/DESIGN/SERIE 110.NOUN 111.ITEM SERIAL NR
SPS | **BEARING SHAFT** | 208 |

BCN 12A. SER NO. 123.TECH DATA/OPTIONAL
 221-1 28811111111111111111 **08007A** 1234567

PART NUMBER 15.ETDNO. NR. 16.PDN. 17.ECON
 221-1 28811111111111111111 **08007A** 1234567

DISP-19.PDN/
 OPERATION NO. 20.WORK TO BE ACCOMPLISHED 21.MECH 22.P 23.Q

4	CENTRAL BEAR BOX P.N 2886720-4-1 NSN 2835-01-034-6948			
010 INTPSI	VISUALLY INSPECT IAW PAR- 5-69 A&C.		M	
000 INTPEI	DIMENSIONALLY INSPECT IAW PARA 5-69B FILTER TO F-15 PARTS PDL.		M	

DATE	BY	NAME	DATE
		EDWARD N KOEHLER	01-JUN-86
		EDWARD N GOMEZ	05-JUN-86
		ESTER BUENTE L	05-JUN-86
		JDE DELACRUZ	10-JUN-86

VIS, DIM

* WORK CONTROL DOCUMENT TA002K * 1. DATE 887037 PAGE 1 OF 1 PAGES

2. PSSD/RCC 3. MATERIAL 4. MIC 5. ERRC 6. QTY 7. SCHED DT 8. COMP DT

MODEL/DESIGN/SERIES 10. NOUN 11. ITEM SERIAL NR
E15 SPS LAYSHEET DR SPACER RING 349
FIG 3-1

12. BCN 12A. SER NO. 13. TECH DATA/OPTIONAL
2JA16-33-3

14. PART NUMBER 15. STOCK NR. 16. PDN 17. BCN
365429-1 5365003291581 08004A 815177
365429-1 5365003291581 08005A 815178

18. DISP-19. PDN/
STATION/OP NO. 20. WORK TO BE ACCOMPLISHED 21. MECH 22. 'P' 23. 'Q'

L/H AHAD
P/N 386706-3-1
NSN 2835010207249
R/H AHAD
P/N 486704-3-2
NSN 2835010881009

CIRCLE APPLICABLE BAR CODE

PSI6 010 VISUALLY INSPECT FOR CRACKS, NICKS,
MTPSI BURRS, CORROSION, AND DEFORMATION
IAW PARA 5-107.A

020 DIMENSIONALLY INSPECT PIN IAW
MTPSI PARA 5-107.B

998 ROUTE TO F-15 PARTS POOL
MATSE

MATEAS YOLANDA RIOS 06 FEB 887
MATEAS
MTPSI JOHN CASTILLO 13 FEB 887
MATSE JESSE LOPEZ 17 FEB 887
MAGTC GILBERT HERRERA 19 FEB 887

12. PSED/FCC 13. MATERIAL 14. MIC 15. ERRO 16. QTY 17. SCHED DT 18. COMP DT
 MTP89S | CRES17-4PH/STL | | N | | |

MODEL / DESIGN / SERIES 110. NOUN 111. ITEM SERIAL N°
315 SPS JET | **RETAINING ASSY INDEX** | 30 |

12. BOM 12A. SER NO. 113. TECH DATA OPTIONAL
 2JA3-50-3

1. PART NUMBER 12. ITEM NO. 14. CON 17. BOM
 31537-1 31537-1 08006A 15685
 31537-1 31537-1 08184A 315686

19. DISP-19. PEN/ 20. WORK TO BE ACCOMPLISHED 21. MECH/22. PART'S

20. WORK TO BE ACCOMPLISHED	21. MECH/22. PART'S
JET FUEL STARTER C/N 08006A P/N 384238-4-1 NEN 2838010712430 GAB. GEN. ASSY C/N 08264A P/N 314901-11 NEN 2873010127180	
VISUALLY INSPECT RETAINER FOR NEAR CRACKS, BURRS, NICKS, DEFORMATION AND CORROSION.	M
DIMENSIONALLY INSPECT RETAINER TAVI P/N 3-32 (3) & FIG. 3-11 (M) P. 101	M
NOTE TO P15 PARTS POOL.	

- MARINO ROBERT MEXAMORE 13 JUL 88
- MARINO EDUARDO COXER 24 JUL 88
- MARIN DIETZ BLONFELLO 17 JUL 88
- MARIN JOSE DE LA CRUZ 14 JUL 88
- DE LEIVER ANDRÉS DE LA ROSA 5 ABR 88

The Resource Control Center (RCC) MATPSI at the San Antonio Air Logistics Center is located in Building 329. This RCC has three distinct functions. One is the disassembly of certain aircraft starters and F-15 and F-16 end items, second is the cleaning of the parts from these end items after they are disassembled (plus parts from gas turbine engines) and lastly, the inspection of the cleaned parts. Some parts are sent direct to the Parts Pool without cleaning (nuts, bolts, spacers, etc.), some parts are sent through florescent penetrant inspection prior to inspection and other parts go direct from cleaning to inspection.

Building 329 is over sixty years old and was originally built for depot maintenance on gasoline driven radial aircraft engines. The building is in good physical shape and free standing air conditioned modules have been constructed within the building for operations such as offices, disassembly, assembly and inspection of various parts. Due to these free standing modules, working conditions are excellent for all functions of MATPSI except for the parts cleaning function. This effort is located in an old section of Building 329 and is rather open and exposed to outdoor temperatures. It is of necessity a rather dirty, noxious operation with high temperatures due to the various cleaning vats.

Separate sections on each of the three functions with additional details follow this general overall discussion.

The cleaning function is located in the northeast end of Building 375. The physical area is approximately 18 feet wide by 300 feet in length and is not an airconditioned area. Working conditions are poor as the outdoor temperature in the summer is aggravated by the hot liquids in the cleaning vats and their attendant odors. In addition, all workers must wear rubber gloves and boots plus heavy aprons which increases the discomfort. There are thirteen workers assigned, all in the grade of WG-05 including the supervisor. This is basically a "Helper" level type individual and is the starting grade when first employed. All assigned personnel were very courteous and helpful to the interviewer.

The equipment consists of vats containing various liquids and grit blasters. The vats have cleaning and degreasing solvents, decarbonizing and hot water rinses and washes. A paint stripping operation should be incorporated in the cleaning shop, and it is my understanding that it will be included in the planned new layout. Many of the vats are simple shop made though a number are factory built with tightly closing lids. Four of the grit blasters are recent purchases and are having maintenance difficulties. Apparently they were not made for production line or high usage type operations and are failing. These were not the grit blasters specified by the shop in the purchase order but were approved substitutes.

Parts requiring cleaning are brought into the cleaning area in plastic baskets and stacked on the floor. Each basket contains specific type metal parts as that dictates the cleaning process to be utilized. Work Control Documents (WCDs) are not used for the bulk of items requiring cleaning as it would be very difficult and costly in manhours to keep each document with its specific part. WCDs are assigned to each item when it passes through the fluorescent penetrant inspection (FPI) station after cleaning so the document can receive the inspector's stamp. Parts not passing through FPI receive their WCD when they enter the inspection room to be given visual and dimensional inspections. Some parts such as nuts and bolts go straight to the Parts Pool from disassembly as inspection is not necessary. Some of the WCDs assigned to the parts in the inspection room return the part to cleaning for degreasing, hot water rinsing and/or grit blasting after return from a backshop. These returned parts do pass through cleaning with a WCD.

The Cleaning function is going to be completely redone within the next few months. The same area will be utilized but new equipment will be installed and a new floor layout will be implemented. Material handling should be facilitated under the new layout and increased production should result from the improvements.

DISASSEMBLY FUNCTION OF RCC MATPSI SA-ALC

The disassembly function is located in an air conditioned free standing module constructed inside of the northeast corner of Building 329. The northern end of this module is where gas turbine engines are disassembled while the southern portion has disassembly for starters and F-1~~X~~_S and F-16 end items.

The area is now being remodeled so a basket conveyor system can be installed to move disassembled parts from individual work stations to the cleaning area which is located just outside the module. When the renovation is complete, there will be over thirty disassembly workstations. The flooring is of asphalt tile with recessed florescent overhead lighting. The wall surfaces are of metal which can result in a noisy environment. All in all, working conditions are very good.

Assembly and disassembly were formerly co-located but are now being separated. This is to preclude the possibility of assembly accidentally installing parts direct from disassembly without passing through inspection and cleaning.

A typical workstation in disassembly consists of a workbench, a mounting stand or fixture for the item to be disassembled and a nearby cabinet for stored special tools.

The inspection function is located in a free standing module which is located inside the north end of Building 229 at Kelly AFB, Texas. The module is air conditioned with temperature and humidity maintained at approximately 72 degrees Fahrenheit and 68 per cent respectively due to the precision dimensional measurement equipment utilized in the shop. All parts brought into the shop for inspection are held for 24 hours prior to commencing any dimensional inspection. The purpose is to ensure the temperature of the part has stabilized at the room temperature so as to ensure accurate dimensional measurements. The room has asphalt tile floor covering and is kept neat and clean at all times. Florescent ceiling fixtures provide excellent lighting. The work environment is good and the equipment is first class. There are fiftyfour personnel assigned at this time. The lowest grade permitted for an individual to be a Certified Inspector is WG09. Those in a lower grade assigned to inspection do various inspection tasks however a Certified Inspector must check their work and "Sign Off" the Work Control Document.

The room has three inspection production lines based on the three basic types of items inspected. One is for Gas Turbine Engines (GTE), one is for Aircraft Starters and the third is for F-15-16 parts. Parts are delivered to the room by two methods. First, a double decker roller conveyor system enters the room from the cleaning and florescent penetrant work areas. The conveyor divides into three lines inside the room with each of the three conveyor lines passing through the middle of each of the three inspection lines, thereby creating a total of six inspection lines. Each of the six inspection lines has six to eight inspection stations, each manned by one inspector. The first few stations on each line have the Automated Production Inspection System (APIS) and the MICRO-4, both computer driven dimensional measurement machines. The remainder of the inspection stations are manual dimensional measurement stations. The second method of parts delivery is by four wheel carts manually pushed into the room for those parts assigned a critical priority. After inspection, parts leave the room via the upper roller conveyor line or the four wheel carts. Adequate backup tools and equipment is available to supplement the automated equipment if necessary.

The inspection function has a shortage of certified inspector personnel. This shortage has developed over several years as a result of hiring freezes implemented to save operating and maintenance funds. As a temporary expedient, personnel have been "loaned" to this function from other RCCs. Today, approximately one third of the assigned personnel are "loaners". These "loaned" personnel can only receive a certain amount of on-the-job training and can not be formally trained in the laboratory to receive certification as qualified inspectors. This results in lower productivity as the work performed by the "loaners" must be evaluated and certified by certified inspectors which borders on

duplication of effort. Overtime must then be used to bring production up to the necessary level. Also, greater demand is placed on the florescent penetrant inspection section as the uncertified personnel rely too heavily on outside assistance in their inspection efforts. Another factor to consider is the higher condemned rate resulting from unknowledgeable inspectors. Some "loaners" have been in the inspection function for over one year while the majority have been assigned there for over six months. Since these temporary personnel are subject to recall to their prime RCC at any time, the supervisors tend to consider them for what they are - temporary workers who may leave at a moment's notice. As these personnel are working ~~out~~ of their Civil Service career field, they can not be issued inspector tool kits and can not receive proper cross-training into the inspection field. This also results in some ~~de~~gradation of these individual's motivation to learn and to apply ~~himself~~ with his best efforts.

outs 40

themselves their

REV. A - 25 MAY 89

PAGE 1 OF 5
SA-ALC TO # 1: PROCESS CHARACTERIZATION

QUICK FIX PLAN OUTLINE

QUICK FIX
1

BOB BUTRY - QUALITY & SAFETY
SITE REVIEW, FROM 6-9 JAN 89

QUICK FIX OPPORTUNITY TO IMPROVE THE EVALUATION AND INSPECTION (E&I) OPERATION, KNOWN AS THE "AUTOMATED PROMPTING INSPECTION SYSTEM" (APIS), TO ELIMINATE OR REDUCE REPETITIVE FIELD RETURN PART DISCREPANCIES.

SA-028 1. CURRENT OPERATION: THE APIS PICTORIALY DISPLAYS EACH FIELD RETURNED PART ON COMPUTER TERMINALS WHERE EACH INSPECTOR COMPARES AN ACTUAL PART WITH ITS VISUAL REPRESENTATION. THE APIS THEN GOES THROUGH A SERIES OF QUESTIONS FOR THE INSPECTOR TO ANSWER IN ORDER TO EVALUATE EACH PART FOR POSSIBLE AREAS OF REPAIR. THIS PROCESS, IN TURN, GENERATES A WCD FOR EACH PART.

2. OVERALL ASSESSMENT OF CURRENT OPERATION: THE USE OF APIS IS AN EXCELLENT METHOD TO E&I A FIELD RETURN FOR REPAIR SO AS TO REMOVE MUCH OF THE HUMAN ERROR HISTORICALLY ASSOCIATED WITH E&I ACTIVITY.

3. RATIONALE FOR CHANGE:

DETERMINING EXACTLY WHERE A FIELD RETURNED PART CONSISTENTLY FAILS IS A PRACTICAL APPROACH TO IMPROVING THE DESIGN OR THE REPAIR OF A PART TO ELIMINATE OR REDUCE THE FAILURE RECURRENCE RATE.

4. DESCRIPTION OF NEW PROCESS:

ADD A MOUSE TO THE APIS DISPLAY TERMINALS SO THAT THE INSPECTORS MAY THEN MARK THE LOCATIONS OF THE NEEDED REPAIRS ON THE DISPLAY. AT SOME APPROPRIATE PERIOD OF TIME LATER, AN ENGINEERING REVIEW COULD PROGRAM A RECALL OF ANY APIS PART TO SHOW A COMPOSITE OVERLAY FAILURE HISTORY. THIS APIS REVIEW WOULD PICTORIALY DISPLAY THE FIELD RETURNS OF A PARTICULAR PART, INDICATE THE QUANTITY OF A PARTICULAR PART OVER THE SPEC. TIME FRAME UNDER REVIEW, AND REVEAL WHERE ANY CONSISTENT FAILURES IN THE PART MAY BE OCCURRING. ENGINEERING COULD THEN BUTTRESS THE PART IN THE AREAS OF CONSISTENT FAILURES, EITHER IN THE DESIGN OR IN THE REPAIR PROCESS, WHICH WOULD REDUCE OR ELIMINATE REPETITIVE FIELD FAILURES.

EXAMPLE: MARK THE WELD FAILURE AREAS ON THE APIS SCREEN FOR EACH FIELD RETURNED PART. A COMPOSITE COMPUTER OVERLAY DISPLAY WOULD BE ABLE TO SHOW IF FAILURES IN THE SAME WELD AREA FOR ANY PART ARE CONSISTENTLY OCCURRING. ENGINEERING COULD THEN DETERMINE WHETHER REDESIGN OR IMPROVED REPAIR IS THE MOST COST EFFECTIVE MEANS OF ELIMINATING THE FAILURE RECURRENCE.

A. PRODUCTIVITY IMPROVEMENTS

— LESS REPETITIVE FAILURES WILL RESULT IN GREATER OVERALL

REFURBISHMENT OUTPUT WITHOUT INCREASING THE PRESENT WORKFORCE.

- E#I PRODUCTIVITY IMPROVEMENTS WILL RESULT FROM FEWER REPETITIVE FAILURES. THIS IS BECAUSE E#I DOCUMENTATION WOULD NOT BE REQUIRED FOR PARTS HAVING UNDERGONE IMPROVED DESIGN AND REPAIR IMPLEMENTATION.

8. QUALITY IMPROVEMENTS

- IMPROVEMENT OF THE PART DESIGN OR THE REPAIR METHOD IS AN INHERENT QUALITY IMPROVEMENT.

5. BENEFITS (COST SAVINGS):

- A. PRODUCTIVITY IMPROVEMENTS ALLOW REFURBISHMENT OF MORE PARTS WITH THE SAME WORKFORCE RESULTING IN LESS COST PER UNIT REPAIRED.

- B. FEWER REPAIRS PER PART RESULT IN LESS EQUIPMENT AND MATERIAL COSTS PER PART.

6. IMPLEMENTATION COST/SCHEDULE:

A. IMPLEMENTATION COSTS

- INSTALL SCREEN MARKING AND COMPOSITE OVERLAY RECALL FEATURES TO APIS.

B. SCHEDULE IMPACT: (NONE)

7. SAFETY IMPROVEMENTS: (NONE)

8. ENVIRONMENTAL HAZARDS/IMPROVEMENTS: (NONE)

9. RELIABILITY/MAINTAINABILITY CHARACTERISTICS:

A. IMPROVED DESIGN CHARACTERISTICS AND REPAIR METHODS WILL RESULT IN MORE RELIABLE AND MAINTAINABLE PARTS IN THE FIELD.

10. HUMAN FACTORS:

A. GREATER PART RELIABILITY AND MAINTAINABILITY WILL RESULT IN MORE SYSTEM CONFIDENCE AND HIGHER MORALE FOR ALC AND FIELD PERSONNEL.

A/ 11. COST IMPROVEMENT DATA:PRESENT CONDITION COST FOR LAST 12 MO.

- COST TO REPAIR PARTS THAT FAILED, DURING SERVICE, IN THE SAME PLACE AND IN THE SAME WAY AS PREVIOUSLY REPAIRED PARTS
= _____.

- COST TO SCRAP PARTS THAT FAILED, DURING SERVICE, IN THE SAME PLACE AND IN THE SAME WAY AS PREVIOUSLY SCRAPPED PARTS
= _____.

PROPOSED IMPLEMENTATION COST

- COST TO ADD A "MOUSE" TO EACH APIS TERMINAL = _____.

- COST TO IMPROVISE THE EXISTING APIS SOFTWARE TO ACCEPTING THE "MOUSE" AND GENERATE THE COMPOSITE OVERLAY, AS DESCRIBED IN PARA. 4 = _____.

FIRST YEAR COST SAVINGS:

[PRESENT CONDITION COST] - [PROPOSED IMPLEMENTATION COST] = _____.

REV. A-26 MAY 89

SA-ALC TO # 1: PAGE 1 OF 2
PROCESS CHARACTERIZATION

FOCUS STUDY

QUICK FIX PLAN OUTLINE

~~QUICK FIX~~
2

BOB BUTRY - QUALITY & SAFETY
SITE REVIEW, FROM 6-9 JAN 89

QUICK FIX OPPORTUNITY TO ESTABLISH AN ENVIRONMENT WITHIN THE EVALUATION AND INSPECTION (E & I) COORDINATE MEASURING MACHINE (CMM) OPERATIONS THAT WILL ALLOW THE CMM HARDWARE TO OPERATE IN A RELIABLE, ACCURATE, AND REPRODUCIBLE MANNER.

SA-021

1. CURRENT OPERATION: E & I INSPECTORS EVALUATE CRITICALLY DIMENSIONED PARTS USING CMM OPERATIONS FOR WCD GENERATION AND PART REFURBISHMENT, AS REQUIRED, FOR THE ENGINE REPAIR FACILITY. SOMETIMES, ESPECIALLY IN SUMMER, ENVIRONMENTAL CONDITIONS IN THE CMM ROOM ARE OUT OF CONTROL, AND CMM OPERATIONS HAVE TO BE SUSPENDED AS THE CMM RESULTS BECOME UNRELIABLE.
2. OVERALL ASSESSMENT OF CURRENT OPERATION: CMM OPERATIONS ALMOST ELIMINATE THE POSSIBILITY OF HUMAN ERROR BY AUTOMATIC COMPUTER SYSTEM MEASUREMENTS OF THE CRITICAL DIMENSIONS OF FIELD RETURNED ENGINE PARTS. ALTHOUGH HUMAN ERROR IS ELIMINATED, CMM ERRORS

OCCUR BECAUSE TEMPERATURE, HUMIDITY, AND PARTICULATE FACTORS IN THE CMM ROOM ENVIRONMENT ARE NOT SUFFICIENTLY CONTROLLED.

3. RATIONALE FOR CHANGE: IN ORDER TO HAVE CONFIDENCE IN THE RESULTS OF THE CMM OPERATIONS, THE CRITICAL ENVIRONMENTAL FACTORS AFFECTING THESE CMMs NEED TO BE CONTROLLED.

4. DESCRIPTION OF NEW PROCESS: YEAR ROUND TEMPERATURE, HUMIDITY, AND PARTICULATE REQUIREMENTS SHOULD BE CONTROLLED WITHIN THE E & I CMM ROOM BY IMPLEMENTING THE FOLLOWING REQUIREMENTS AND PROCEDURES:

- RESTRICT PERSONNEL ACCESS TO AND FROM THE CMM ROOM BY THE USE OF ONLY ONE LARGE DOORWAY. (OTHER DOORWAYS MAY REMAIN IN PLACE FOR EMERGENCY USE ONLY)
- THE DOORWAY SHOULD HAVE AN AIRLOCK TO THE OUTSIDE OF THE CMM ROOM. THE AIRLOCK SHOULD HAVE OUTER DOORS TO AND FROM THE OUTSIDE PLANT ENVIRONMENT. POSITIVE AIR PRESSURE SHOULD FLOW FROM THE CMM ROOM (HIGHEST PRESSURE), INTO THE AIRLOCK (INTERMEDIATE PRESSURE), AND THEN INTO THE SHOP ENVIRONMENT (LOWEST PRESSURE).

- ALL AIR ENTERING THE CMM ROOM AND THE AIRLOCK SHOULD PASS THROUGH HEPA FILTERS IN ORDER TO CONTROL PARTICULATES.
- THE AIRLOCK SHOULD BE CARPETED WITH A LINT-CATCHING SURFACE.
- PERSONNEL ENTERING THE CMM ROOM SHOULD WEAR CLEAN SMOCKS AND HATS. (THESE MAY BE STORED IN THE AIRLOCK.)
- TRAYS CONTAINING PARTS SHOULD BE WIPED WITH A LINT-CATCHING CLOTH BEFORE PASSING INTO THE CMM ROOM.
- THE AIR IN THE CMM ROOM SHOULD BE REGULARLY AND ADEQUATELY MONITORED FOR CORRECT TEMPERATURE, HUMIDITY, AND PARTICULATE REQUIREMENTS BASED ON CMM MANUFACTURER'S RECOMMENDATIONS.

A. PRODUCTIVITY IMPROVEMENTS

- LESS E&I CMM DOWNTIME FROM INADEQUATE CMM ROOM ENVIRONMENTAL CONDITIONS.

B. QUALITY IMPROVEMENTS

- CMM RESULTS WILL BE RELIABLE, ACCURATE, AND REPRODUCIBLE YEAR ROUND

5. BENEFITS (COST SAVINGS):

A. LESS E & I CMM DOWNTIME WILL ALLOW GREATER UTILIZATION OF ALL E & I PERSONNEL AND CMM EQUIPMENT.

6. IMPLEMENTATION COST/SCHEDULE:

A) IMPLEMENTATION COSTS

- INSTALL AIRLOCK, WITH LINT-CATCHING FLOORING AND INTERMEDIATE PRESSURE HEPA FILTER SYSTEM.

- PURCHASE OF SMOCKS AND HATS FOR ALL PERSONNEL REQUIRED TO BE IN THE CMM ROOM.

- INSTALL HIGHEST PRESSURE HEPA FILTER SYSTEM FOR CMM ROOM.

- PURCHASE OF AIR PARTICULATE MEASURING MACHINE FOR CMM ROOM.

- PURCHASE OF TEMPERATURE AND HUMIDITY CONTROL SYSTEM FOR CMM ROOM.

7. SAFETY IMPROVEMENTS: (NONE)

8) ENVIRONMENTAL: (NONE)

9) RELIABILITY/MAINTAINABILITY:

A) CMM MEASUREMENTS WILL BE RELIABLE YEAR ROUND WITH ENVIRONMENTAL CONTROLS.

B) CMM EQUIPMENT WILL BE BETTER MAINTAINED IN A CONTROLLED ENVIRONMENT.

10 HUMAN FACTORS:

A. E&I CMM INSPECTORS WILL HAVE CONFIDENCE IN THE RESULTS OF THEIR EFFORTS IF THE CMM EQUIPMENT IS MAINTAINED UNDER PROPER ENVIRONMENTAL CONTROLS.

A/ II. COST IMPROVEMENT DATA:PRESENT CONDITION COSTS FOR LAST 12 MO.

- LABOR COSTS ASSOCIATED WITH THE SHUTDOWNS OR MALFUNCTIONS OF ELECTRONIC MEASURING EQUIPMENT IN THE LAST 12 MONTHS DUE TO INABILITY TO CONTROL THE TEMPERATURE, HUMIDITY, OR PARTICULATES IN THE MATPSI INSPECTION ROOM = _____.
- MACHINE AND SOFTWARE COSTS ASSOCIATED WITH THE ABOVE SHUTDOWNS AND MALFUNCTIONS OF ELECTRIC MEASURING EQUIPMENT = _____.

PROPOSED IMPLEMENTATION COSTS

- COST TO SEAL (LOCK) ALL DOORS LEADING INTO THE MATPSI INSPECTION ROOM, BUT LEAVE ALARM ACTIVATED EMERGENCY EXITS, AS NECESSARY = _____.
- COSTS TO CONSTRUCT ONE LARGE POSITIVE PRESSURE AIRLOCK/DOORWAY FOR ENTRY & EXIT, PER PARA. 4, LARGE ENOUGH TO ACCOMMODATE A HANDTRUCK FOR PARTS. THE AIRLOCK SHOULD HAVE SMOCKS, HATS, DISPOSIBLE PLASTIC SHOE COVER BOOTIES, SHELVES, HANGERS, LINT FREE DISPOSIBLE WIPES TO DUST OFF TOTE TRAYS, AND THE AIRLOCK/DOORWAY CARPETED WITH A LINT-CATCHING SURFACE = _____.

- COST TO INSTALL MONITORING EQUIPMENT IN THE MATPSI INSPECTION ROOM TO CONTROL TEMPERATURE, PRESSURE, HUMIDITY, AND PARTICULATES = _____.

- COST TO INSTALL HEPA FILTERS IN ALL AIR INLETS TO THE MATPSI INSPECTION ROOM AND AIRLOCK.
= _____.

FIRST YEAR COST SAVINGS:

[PRESENT CONDITION COST] - [PROPOSED IMPLEMENTATION COST] = _____.

IR)

REV. A - 18 MAY 89

REV. B - 24 MAY 89

COMMAND WIDE

T.O. # 1: PROCESS CHARACTERIZATION

QUICK FIX PLAN OUTLINE

COMMAND WIDE
QUICK FIX
2

BOB BUTRY - QUALITY & SAFETY
SITE REVIEW, DURING JAN 89

QUICK FIX OPPORTUNITY TO FACILITATE THE QDR (QUALITY DISCREPANCY REPORT) EFFORT BY

B/ HAVING SUPPLIERS ALWAYS TAKE RESPONSIBILITY FOR THE REPAIR, REPLACEMENT, REIMBURSEMENT, AND CORRECTIVE ACTION FOR DISCREPANT SUPPLIER PARTS STILL UNDER WARRANTY.

SA 036

1. CURRENT OPERATION: USUALLY, ONLY THE OUTER PACKAGE OF NEWLY RECEIVED PARTS HAS THE CONTRACT NUMBER, THE VENDOR CODE, AND THE DATE OF MANUFACTURE IMPRINTED ON IT BY THE SUPPLIER. IF A PART IS REMOVED FROM THIS OUTER PACKAGE IN ORDER TO BE STAGED FOR INSTALLATION, THESE 3 PIECES OF IDENTIFICATION MAY THEN BE LOST. THIS METHOD OF STAGING

IS USUALLY ASSOCIATED WITH ELECTRICAL PARTS, BECAUSE INSTALLATION CLEANLINESS REQUIREMENTS NORMALLY DO NOT PERMIT THE DIRTY OUTER PACKAGE TO REMAIN WITHIN THE CLEANER AREAS WHERE

THE PARTS ARE HELD PRIOR TO INSTALLATION. ALSO, SOME PARTS ARE STORED IN SUPPLY AFTER REMOVING AND DISCARDING THE OUTER PACKAGE PRIOR TO BEING REQUISITIONED FOR USE BY THE SHOP.

2. OVERALL ASSESSMENT OF CURRENT OPERATION:
IF ANY OF THESE PARTS ARE LATER DETERMINED TO BE DISCREPANT AT THE TIME OF INSTALLATION THEN A QDR WILL BE WRITTEN FOR SUPPLIER ACTION. IT MAY BE IMPOSSIBLE TO REQUIRE THE SUPPLIER TO ACCEPT RESPONSIBILITY FOR THE DISCREPANCY, HOWEVER, WITHOUT REFERENCING THE CONTRACT NUMBER, THE VENDOR CODE, AND THE DATE OF MANUFACTURE WITHIN THE QDR, THIS INFORMATION ESTABLISHES THE PART CONFIGURATION, THE SUPPLIER, AND WHETHER THE PART IS STILL UNDER WARRANTY, RESPECTIVELY. SOME SUPPLIERS ARE NOT ACCEPTING RESPONSIBILITY DUE TO THE ABSENCE OF ANY OF THIS INFORMATION. THIS CAUSES THE ALC TO ACCEPT THE COSTS ASSOCIATED WITH SUPPLIER RELATED PART DISCREPANCIES.

3. RATIONALE LEADING TO CHANGE:
IT IS NEITHER A COST EFFECTIVE NOR AN ACCEPTABLE BUSINESS PRACTICE TO ALLOW A SUPPLIER NOT TO BE RESPONSIBLE AND ACCOUNTABLE FOR DISCREPANT PARTS THAT ARE STILL UNDER WARRANTY.

4. DESCRIPTION OF NEW PROCESS: MANDATE A GENERAL CONTRACT PURCHASE ORDER (P.O.) REQUIREMENT THAT THE CONTRACT NUMBER, THE VENDOR CODE, AND THE DATE OF MANUFACTURE

BE IDENTIFIED ON EACH PART BY RUBBER STAMP, OR BY ANOTHER NON-ABRASIVE AND NON-CORROSIVE METHOD. IF THE PART IS TOO SMALL TO IDENTIFY IN THIS WAY, IT WOULD BE PERMISSIBLE TO SO IDENTIFY THE INNER PACKAGE CONTAINING THE PART(S). A THIRD METHOD OF PROVIDING THIS IDENTIFICATION WOULD BE TO REQUIRE A METAL, PLASTIC, OR CARDBOARD I.D. TAG BE TIED TO EACH PART WITH A PLASTIC COATED METAL TIE. THE P.O. SHOULD ALSO STIPULATE THAT THE PART(S) MAY BE RETURNED TO THE SUPPLIER WHENEVER THE OUTER PACKAGE IS OPENED AND THE NOTED I.D. INFORMATION IS MISSING. THIS ADDED STIPULATION WOULD ELIMINATE THE NEED (AND EXPENSE) TO VERIFY THE NEW PART I.D. REQUIREMENT BY NOT HAVING TO OPEN THE OUTER PACKAGE UPON RECEIPT.

A. PRODUCTIVITY IMPROVEMENTS

- LESS DOWNTIME FROM RECURRING DISCREPANT PARTS DUE TO SUPPLIERS ACCEPTING RESPONSIBILITY TO TAKE CORRECTIVE ACTION FOR ALL PARTS ON QDR.

B. QUALITY IMPROVEMENTS

- ALL SUPPLIER RELATED QDRS WILL BE ANSWERED IN A TIMELY MANNER
- CORRECTIVE ACTION WILL BE TAKEN FOR EVERY QDR SUPPLIER RELATED DISCREPANCY

C. RESOURCE UTILIZATION

- FEWER PARTS WILL HAVE TO BE SCRAPPED

5. BENEFITS/TRADEOFFS (REF. PARA. 11):

- A) FULL CREDIT WILL BE RECEIVED FOR SUPPLIER RELATED DISCREPANT PARTS
- B) THE REPETATIVE NATURE OF DISCREPANT PARTS FROM SELECTED SUPPLIERS WILL BE ELIMINATED

6. IMPLEMENTATION COST/SCHEDULE (REF. PARA. 11):

- A) THERE WILL BE NO SCHEDULE IMPACT.
- B) ADDITIONAL COST MAY BE IMPOSED BY THE SUPPLIER TO PROVIDE THE NOTED PART I.D. INFORMATION.
- C) THE 2 NEW P.O. REQUIREMENTS WILL NEED TO BE ADDED AT SOME COST TO THE ALCs.

7. SAFETY IMPROVEMENTS: (NONE)8. ENVIRONMENTAL HAZARDS/IMPROVEMENTS: (NONE)9. RELIABILITY/MAINTAINABILITY CHARACTERISTICS:

- A) PARTS RECEIVED FROM SELECTED SUPPLIERS WILL NOT CONTINUE TO HAVE REPETATIVE DEFECTS OF THE SAME KIND AS THESE SUPPLIERS TAKE RESPONSIBILITY AND CORRECTIVE ACTION FOR THEIR DISCREPANT PARTS

10. HUMAN FACTORS DESIGN CRITERIA:

- A. THE ELIMINATION OF UNRESOLVED, REPETATIVE PROBLEMS FROM SELECTED SUPPLIERS WILL IMPROVE THE MORALE OF QUALITY AND PRODUCTION PERSONNEL

A/ II. COST IMPROVEMENT DATA:PRESENT CONDITION COST

B/

- COST TO REPLACE ALL NEW PURCHASED PARTS THAT WERE SCRAPPED OVER THE LAST 12 MONTHS AT THE EXPENSE OF THE ALC DUE TO THE LACK OF NECESSARY SUPPLIER IDENTIFICATION (CONTRACT NUMBER, VENDOR CODE, OR DATE OF MANUFACTURE) AT INSTALLATION
= _____.

- COST TO REPAIR ALL NEW PURCHASED PARTS OVER THE LAST 12 MONTHS AT THE EXPENSE OF THE ALC DUE TO THE LACK OF NECESSARY SUPPLIER I.D. AT INSTALLATION
= _____.

PROPOSED IMPLEMENTATION COST

- COST INCURRED BY ALC PURCHASING OFFICE TO INSERT THE NOTED P.O. REQUIREMENT (REF. PARA. 4) = _____.

- ESTIMATED ADDITIONAL ANNUAL COST BY ALL ALC NEW PARTS SUPPLIERS TO IMPLEMENT THE NOTED I.D. REQUIREMENT AS SPECIFIED (REF. PARA. 4)
= _____.

ANNUAL COST SAVINGS (FIRST YEAR):

[PRESENT CONDITION COST] - [PROPOSED IMPLEMENTATION COST] = _____.

11 APR 89 (TUE) @ SA-ALS

-ARRIVED ON SITE, GETTING BADGED. WENT THROUGH SA A.C. BISE SECURITY CLASS. GETTING ORIENTED TO WORK SITE & WORK AREA.

-OUR OFFICE PHONE: [92]5-3514

12 APR 89 (WED) @ SA-ALC

- FURTHER SA-ALC ORIENTATION.
- DETERMINED THAT SEVERAL HUNDRED DIFFERENT PAIRS GO THROUGH THE MATPSI [E+I INSPECTION]. EACH PAIR HAS ITS OWN WCD.

13 APR 89 (THURS) @ SA-ALC

8:00 A.M. MEETING

- ED GILL - PLANNER
- DAVID GONZALEZ - ENGINEER
- BILL GONZALEZ - DESIGN AND COORDINATION
- ED MARY - M.I.C.
- BOB BUTTAY - M.I.C.

- HAD A MEETING TO DETERMINE HOW TO CHARACTERIZE THE MATPSI COMPONENTS INSPECTED FROM THE BREAKDOWN OF THE 80/20 END ITEM PARTS. IT WAS DECIDED TO GROUP THE 80/20 END ITEM COMPONENTS INTO FIVE FAMILIES AND USE 2 TYPICAL WEDS WITHIN EACH FAMILY OF PARTS TO DETERMINE THE "AS IS" CONDITIONS FOR MESS & THIS INSPECTION OPERATION PROFILES.

2:30 P.M. MEETING

- D.K. MCCREYS, MATPSI FOREMAN, TO BE MY INTERVIEWEE FOR THE E&I MAINTENANCE PROFILE SHEET. JUAN LANDEROS, INSPECTOR, TO BE MY INTERVIEWEE FOR THE EQUIPMENT PROFILE SHEET.

17 APR 89 (MON) @ SA ALR

PA:G 9

- CONTINUING INTERVIEWS TO PROFILE THE
MATPJI EQUIPMENT. INTERVIEWED
JUAN LANDEROS AND RON JOHNSON,
APIS INSPECTORS.

14 APR 89 (FRI) @ SA - ALC

- INTERVIEWED D.V. BARRERO, FORMER IN MATPSI, COMPLETED MANPOWER PROFILE FOR THE STARTERS. [PHONE: 59353].
- COMPLETED THE MANPOWER PROFILE SHEET FOR MATPSI STARTERS.
- INTERVIEWED ALBERT MUSQUIZ, FORMER IN MATPSI, COMPLETED MANPOWER PROFILE FOR THE GAS TURBINE ENGINES (GTEs).
- COMPLETED THE MANPOWER PROFILE SHEET FOR MATPSI GTEs.
- INTERVIEWED JUAN LAIBEROS + PRINCE AUTAY, INSPECTORS IN MATPSI. BOTH FAMILIAR WITH THE EQUIPMENT THROUGHOUT THE MATPSI REC.
- EARL MANN DECIDED THAT 'OFF THE SHELF' MEASURING EQUIPMENT WILL NOT BE PROFILED. SPECIAL FIXTURES, TOOLING, ETC. THAT COULD CAUSE PRODUCTION SHUTDOWNS IF LOST OR DAMAGED WILL BE PROFILED.

- EARL MARY DECIDED NOT TO INCLUDE/EXTEND THE DOWNTIME TO THE SPECIAL FIXTURES AND TOOLING THAT ARE ASSOCIATED WITH TESTING EQUIPMENT THAT DO HAVE DOWNTIME. EACH PIECE OF LISTED EQUIPMENT WILL STAND ALONE REGARDING DOWNTIME.
- ED JILL, P-ANGL, COMPILING THE COMPONENT LISTS THAT HAVE IN THE PROFILED FAMILY ED GROUPS THE COMPONENTS INTO "PART FAMILIES". ED WILL PROVIDE BOTH A "VISUAL" AND AN "APIS" WCD WHICH WILL BE TYPICAL FOR EACH PART FAMILY FROM WHICH TO CONDUCT INTERVIEWS.
- INTERVIEWING ALBERT MUSQUIZ, NDI INSPECTION FOREMAN FOR GTE, AND JUAN LANDRIS FOR THE GTE EQUIPMENT PROFILE.
- MET JIL NEBGEN, SUPERVISOR OF THE MATPSI FOREMEN, TO SET UP INTERVIEWS WITH F-15 & F-16, NDI INSPECTION FOREMEN EDWARD GOMEZ (DAY SHIFT) AND JOHN CASTILLO (NIGHT SHIFT)

- INTERVIEWED 1ST SHIFT NDI INSPECTION FOREMAN, EDWARD GOMEZ, FOR MANPOWER & EQUIPMENT PROFILE FOR THE 1711 & F16 NDI INSPECTIONS. JUAN LANDEROS, NDI INSPECTOR, ASSISTED.
- ED GILL, PLANNER, AND JUAN LANDEROS WORKING TO OBTAIN "FAMILY OF PARTS" GROUPINGS FOR THE OPERATIONAL PROFILE INTERVIEWS.
- INTERVIEWED 2ND SHIFT NDI INSPECTION FOREMAN, EDWARD GOMEZ, TO VERIFY MANPOWER REQUIREMENTS & TO ADD OTHER ITEMS TO THE EQUIPMENT PROFILE SHEET.
- TRIXIE BROWN TOURED THE NDT AREA, I ASSISTED IN THE TOUR, ALONG WITH J. LANDEROS, B. CANWAY, & E. GILL.

20 APR 89 (THU) @ EA-ALC

PAGE 15

- OBSERVED THE APIS OPERATION WITH JUAN LANDEROS, MATPSI NDI INSPECTOR.
- OBSERVED THE MICKY-4 OPERATION WITH RON JOHNSON, MATPSI NDI INSPECTOR.
- FINISHING/REWRITING/CLARIFYING THE EQUIPMENT PROFILE SHEETS FOR MATPSI.

21 APR 89 (FRI) @ SA-ALC

PAGE 17

- SUBMITTED THE EQUIPMENT PROFILE TO EARL MARY FOR RCC MATPSI
- FINISHING/REWORKING 'CLARIFYING THE MANPOWER PROFILE' FOR MATPSI
- TALKED WITH DAVID CHRISTOPHER IN THE APIS COMPUTER SECTION, HE HAS COLLECTED DATA SINCE OCT 82 ON THE SUPPLY/DEMEND... RATES FOR ALL PARTS INSPECTED IN MATPSI. I WILL REVIEW THE COST OF THE COMPONENTS GOING THROUGH THIS MATPSI FROM ONE OF THE 80/20 END ITEMS WITH ED GILL TO TRY TO IDENTIFY A CANDIDATE COMPONENT FOR PREVENTIVE MAINTENANCE OR IMPROVED DESIGN.

24 APR 89 (MON) @ SA-ALC

PAGE 19

- COMPLETED MY EXPENSE REPORT
- WORKING ON MATPSE MANPOWER PROFILE
- ED GILL COMPILING PIAT FAMILIES
- 11:30 TO 3:30 PM TOOK EYE EXAM TO REMAIN QUALIFIED FOR MAT PARTICLE & PENETRANT INSPECTION SURVEYS

- ED GILL FINISHED GROUPING A FEW OF THE PART FAMILIES, BEGAN INTERVIEWS ON THE "TUBE" FAMILY OF PARTS, WITH AL HJELM GUIDING ME THROUGH THE FIRST "OPERATION PROFILE" SHEET.
- INTERVIEWING NDI INSPECTORS GEORGE CACON (GTES), JUAN LAVERAS (STARTERS), & XAVIER PUENTE (FIBS) FOR TUBE FAMILY OPERATION PROFILE FOR NDI PSI INSPECTION REC. THE OPERATION PROFILE CHARACTERIZATION BREAKS DOWN IN THE DIMENSIONAL INSPECTION OPERATIONS - THE DATA IS SPREAD TO A FAN APART REGARDING TIME, METHODS, & OPERATIONS FROM ONE TUBE TO THE NEXT AND WITHIN THE 3 INSPECTION LINES. HAVE TO REVIEW "FAMILY" APPROACH WITH E. MARY, M. MCCOY, & L. MAURDS. NO ANSWERS YET.
- TO CONSULT WITH ED GILL TOMORROW.

26 APR 89 (WED) @ SA-ALC

PAGE 23

- ED GILL IN CLASS TODAY, MAY BE TOMORROW BEFORE WE CAN REVIEW THE PART FAMILY APPROACH WITH HIM.
- FINISHED THE MANPOWER PROFILE FOR MATPDI INSPECTION AREA.

28 APR 89 @ SA-ALC

PAGE 25

- REVIEWED THE MATPVI WITH CPI ENGINEER, JIMMY EATON.
- SEPARATED THE MATPVI WEDS INTO PROCESS FAMILIES FOR INTERVIEWS.

01 MAY 89 @ SA-ALC

PAGE 27

- MET JIMMY EATON WHO IS WORKING WITH ME TO CHARACTERIZE THE MATPI INSPECTION AREA.
- DIVIDING THE WCD EFFORT INTO PROGRESSIVE FAMILIES TO TRY TO EXPEDITE THE INTERVIEWING EFFORT.
- COMPLETING SOME INTERVIEWS, BUT HAVING TO RE-DO THEM, A LEARNING PROCESS.

02 MAY 89 @ SA-ALL

PAGE 29

- JIMMY EATON INTERVIEWING XAVIER QUENTE FOR FIS/FIB COMPONENT INSPECTIONS. I AM INTERVIEWING JUAN LAJOLAS FOR STANIER COMPONENTS.
- I COMPLETED 7 OPERATIONS PROFILE SHEETS FOR THE "VISUAL" INSPECTION FAMILY.

- FAMILIARIZED CHUCK GONZALES WITH THE MATPSI AND THE INSPECTION PROCESS CHARACTERIZATION PROBLEM FOR MATPSI.
- DECISION MADE TO CONSTRUCT A GENERIC MATPSI INSPECTION WCD TO PROFILE THE 3 INSPECTION LINE OPERATIONS. I COMPLETELY "GENERIC" LINE INTERVIEWS FOR VISUAL INSPECTIONS. * THE TOTAL INSPECTION INTERVAL TIME OVER ALL LINES IS FROM 5 TO 12 MINUTES FOR SERVICEABLE & REPAIRABLE PARTS, AND FROM 3 TO 5, 4 TO 12, AND 10 TO 12 MINUTES FOR ENGINES, STARTERS, AND FIS/FIL LINES, RESPECTIVELY, FOR THE CONDEMNED PARTS. FOLLOW-UP DIMENSIONAL, MAGNETIC PARTICLE, FORCE FIT, HYDROSTATIC, AND EDDY CURRENT INSPECTION PROCESSES WILL BE DONE BY INTERVIEWS TO ESTABLISH THE "GENERIC" WCDs INVOLVING THESE PROCESSES. IN ALL, 12 GENERIC WCDs WILL BE CONSTRUCTED TO SIMULATE THE INFORMATION NEEDED TO CHARACTERIZE THE 12 80/20 END ITEMS WHOSE COMPONENTS GO THROUGH THE MATPSI INSPECTION PROCESS.

04 MAY 89

- HELD MEETING WITH B. GONZALES, L. MARTIN, C. GONZALES, D. GONZALES, AND TO DISCUSS THE "GENERIC" WCD APPROACH. THIS APPROACH WAS ACCEPTED, BUT 3 TO 11 SPECIAL COMPONENTS FROM EACH OF THE 12 END ITEMS WILL BE CHARACTERIZED, IN DEPTH, VIA INTERVIEWS, IN ADDITION

* FIS/FIL LINE INTERVIEWED MIKE TAPIA
 STARTER " - " JUAN LAMARCA
 GTF " - " GEORGE CHAMON
 - ALL ARE NDI INSPECTORS -

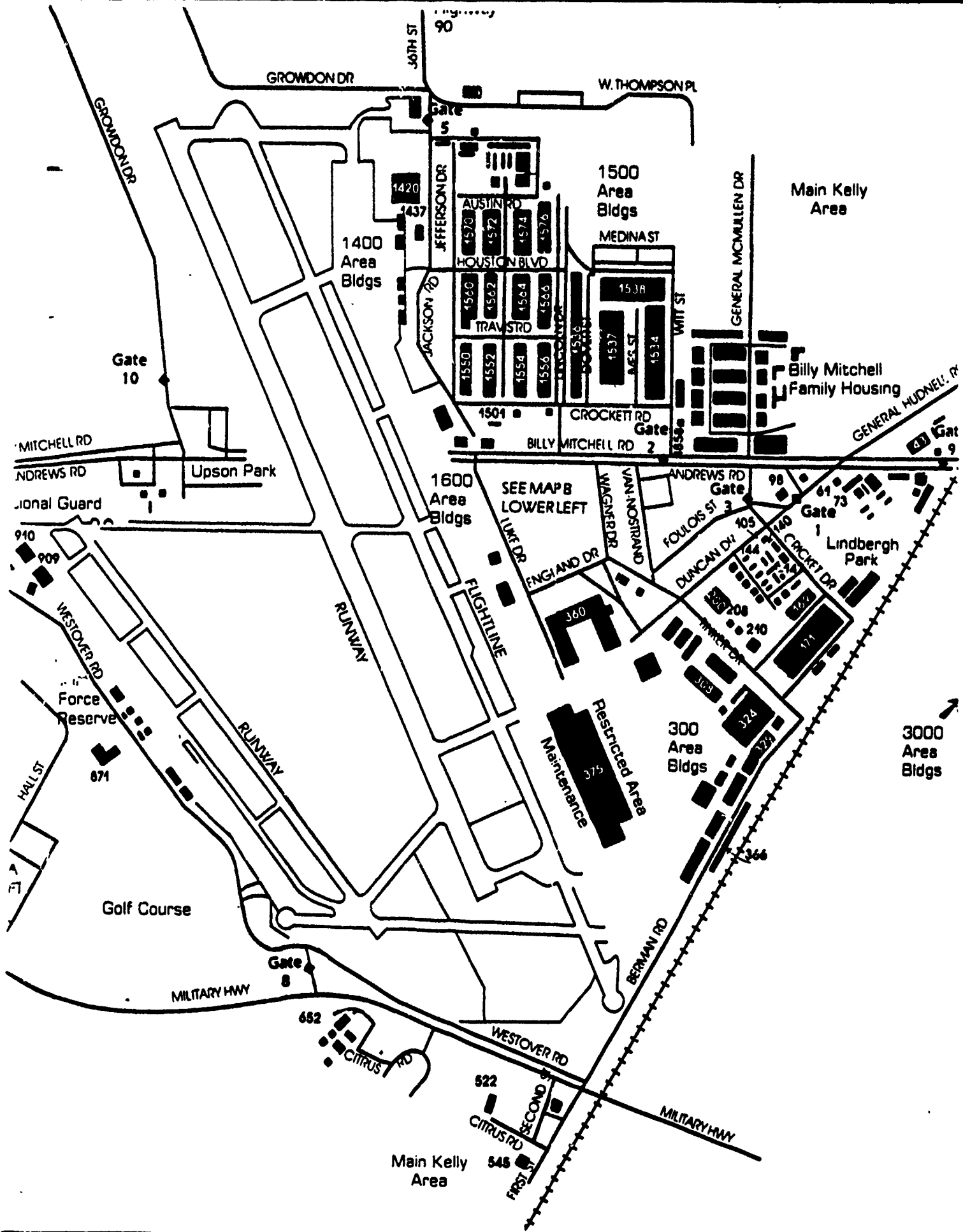
- TEAM MEETING OF ALL FROM CPI & MDMSC REGARDING OUR SCHEDULE AND THE QUALITY OF OUR I.E. RCC ASSESSMENTS. EARL MARY LEADING THE DISCUSSION. NEED TO KEEP OUR ENGINEERING NOTEBOOKS CURRENT.
- DEVELOPING THE GENERIC APPROACH CONCEPT TO MAKE 12 WCDs FOR THE COMPONENTS FROM THE S/D END ITEM LIST FOR THE MATPSI INSPECTION AREA.
- ED WILL COMPLETED WCDs FOR 28 OF THE 48 CRITICAL PARTS WE HAVE TO CHARACTERIZE VIA OPERATION PROFILE SHEETS IN THE MATPSI INSPECTION AREA.
- I AM TRAINING JIMMY EATON TO TAKE MY PLACE IN CHARACTERIZING THE MATPSI INSPECTION RCC WHEN I RETURN TO ST. LOUIS ON 12 MAY 89.

- STARTED THE PROCESS TO BEGIN INTERVIEWING FOR THE 48 CRITICAL ITEMS BILL CONWAY~~ED~~ WILL WANT FOR THE CHARACTERIZATION OF THE MATPSI INSPECTION PLAN. ALL WCDs ARE BEING COMPILED TO BEGIN INTERVIEWS.
- THE APPROACH TO WRITING THE 12 GENERIC OPERATION PROFILES FOR EACH OF THE 12 END ITEMS IN THE MATPSI INSPECTION RCC WILL REQUIRE INTERVIEWS TO DEVELOP AVERAGE OCCURRENCE FACTORS FOR THE GROUP OF PARTS THAT ARE INVOLVED IN THE BUILD UP OF EACH END ITEM IN THE VISUAL, DIMENSIONAL, MAGNETIC PARTICLE, PENETRANT, HYDROSTATIC, EDDY CURRENT, & FUNCTIONAL TEST INSPECTION OPERATIONS. ~~FROM THESE 12 GENERIC WCDs, 12 GENERIC OPERATION PROFILE SHEETS WILL BE WRITTEN.~~ THIS WILL ALSO INCLUDE GFI BACK SHOP TIMES. INTERVIEWS FOR THE CLEANING OPERATION WILL ALSO BE DONE TO DEVELOP GENERIC OPERATION PROFILE SHEETS.

- RICARDO BOLANDOS (MDMSC) AND ROGER MILLER (SM-ALC TI COORDINATOR) VISITED THE SA-ALC SITE TO HELP FACILITATE OUR EFFORT TO CHARACTERIZE THE MATPSI CLEANING & INSPECTION AREA.
- IT IS ACCEPTABLE TO ROGER MILLER TO LIST THE PROCESSES & EQUIPMENT OPERATING TIMES VS. THE OCCURRENCE FACTORS FOR THE 12 END ITEMS, ALL GROUPED INTO THE 3 MATPSI END PRODUCTS - GTE, STARTERS, FIS/FIN. ED GILL IS COMPILING THE END ITEM PARTS LIST FOR ALL END ITEMS, SO INTERVIEWS TO DEVELOP GENERIC OPERATION PROFILE SHEETS FOR EACH OF THE 3 END MATPSI PRODUCT LINES MAY PROCEED AT THAT TIME.
- INTERVIEW SHEETS ARE BEING COMPILED/DEVELOPED FOR THE ABOVE BY MDMSC.

- STILL DEVELOPING GENERIC MATPSE
END ITEM INTERVIEW SHEETS.
- ED GILL HAS SUPPLIED MDMSC WITH
THE 48 CRITICAL DETAIL PART WCDs
(4 PER END ITEM) FOR 48 INTERVIEWS.
- ED GILL STILL COMPILING THE DETAIL PARTS
LIST FOR ALL THE 12 END ITEMS.

— MDMSC HAS COMPLETED THE GENERIC PROCESS INTERVIEW SHEETS FOR THE 7 INSPECTION PROCESSES FOR THE 3 INSPECTION END ITEM PRODUCT LINES. ED IS COMPLETING THE DETAIL PARTS LIST FOR EACH OF THE 12 END ITEMS, AND THE 25% OF THE DETAIL PARTS THAT GO DIRECTLY TO THE PARTS POOL WILL BE ELIMINATED FROM THIS LIST BY ED. ALSO, THE 4 CRITICAL PARTS TO BE CHARACTERIZED IN DETAIL WILL BE ELIMINATED BEFORE INTERVIEWS WILL BEGIN. ED WILL ALSO ADD PARTS TO THIS LIST THAT WERE OMITTED. ONCE ED HAS FINISHED THIS, MDMSC INTERVIEWS FOR THE 3 GENERIC MATPSI END ITEM PRODUCT LINES MAY BEGIN.



GROWDON DR

W. THOMPSON PL

GROWDON DR

90

Gate 5

1420

1437

1400 Area Bldgs

AUSTIN RD

HOUSTON BLVD

1500 Area Bldgs

MEDINAST

JACKSON RD

TRAVIS RD

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GENERAL McMULLEN DR

Main Kelly Area

Billy Mitchell Family Housing

Gate 10

MITCHELL RD

ANDREWS RD

Upson Park

Divisional Guard

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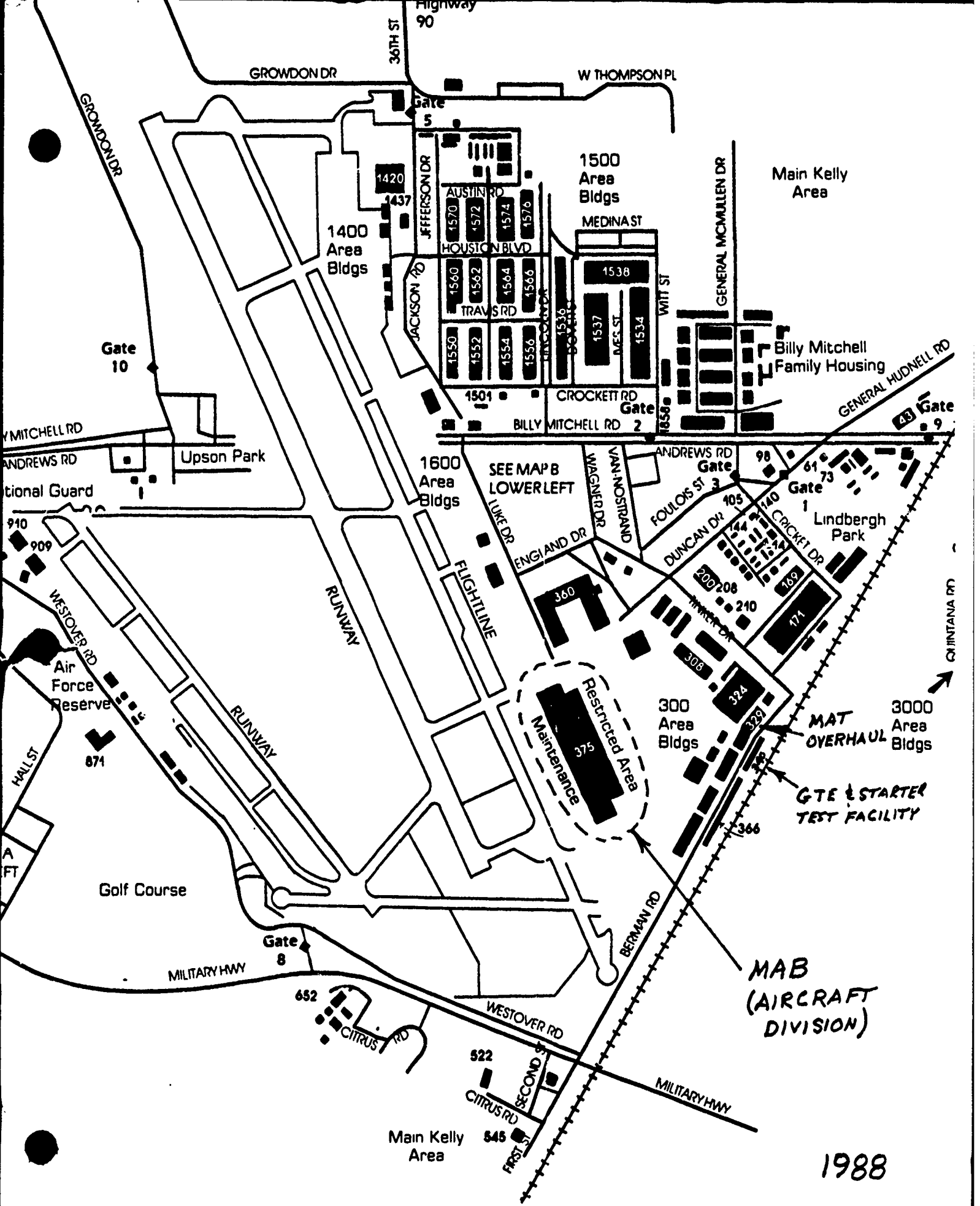
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