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PROCEDURES FOR ACQUISITION, HANDLING, AND ENTERING INTO PARR SY--ETC(U)
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PROCEDURES FOR ACQUISITION, HANDLING, AND
ENTERING INTO PARR SYSTEM OF REPAIR AND FAILURE
ANALYSIS DATA FOR TARGET MK 30 MOD 1

October 1974

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APR 6 1978
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Prepared for

U.S. NAVAL TORPEDO STATION
Keyport, WA 98345

Under Contract N00406-73-C-0631

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Publication W4-1612-TN03

ARINC RESEARCH CORPORATION
P.O. Box 1375/Santa Ana, Calif.

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PROCEDURES FOR ACQUISITION, HANDLING, AND
ENTERING INTO PARR SYSTEM OF REPAIR AND FAILURE
ANALYSIS DATA FOR TARGET MK 30 MOD 1.

11 October 1974

12 29p.

9 Technical notes

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Prepared by
10 H. J. Trueblood

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APR 6 1978
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INTRODUCTION

The Performance and Reliability Reporting System for Mobile ASW Target Mk 30 Mod 1 (PARR-Target) has been established for the collection and dissemination of target operational, maintenance, and logistics data. The operational and maintenance data are processed to provide management with target performance, reliability, and effectiveness information. Problem areas are defined so that target management can take detailed investigative and corrective action as required. Logistics data are collected and disseminated to support inventory and configuration control.

General procedures and requirements for the PARR-Target system are given in NAVORD OD 46291, Technical Manual, Mobile ASW Target Mark 30 Mod 1 System Information Analysis System Handbook for Performance, Reliability, Maintainability, Configuration, Inventory, and Deficiency Reporting, June 1974. Under Task 07 of Contract N00406-73-C-0631, ARINC Research Corporation is assisting the U. S. Naval Torpedo Station, Keyport, in implementing the Target Reporting System. This report documents the results of Subtask 07-1.f, which is to develop a recommended standard procedure for the acquisition, handling, and entering into the PARR system of data from the manufacturer and depots concerning Target Mk 30 repairs.

As background information, Section 2 of this report briefly discusses the Target Mk 30 maintenance concept. Subsequent pages present recommended standard procedures for the subject data-reporting system at the intermediate maintenance activity (IMA) level, Section 3; at the manufacturer's facility, Section 4; and at the depot level, Section 5. Section 6 discusses how information concerning specific repairs by the manufacturer or depot is fed back to the activity requesting the repair. Forms used in conjunction with the PARR-Target system are reproduced in the appendix.

MAINTENANCE CONCEPT

Target Mk 30 is maintained by shore-based IMAs and depot repair facilities under the functional item replacement (FIR) concept. No corrective maintenance is performed at the user level. The IMA prepares and issues targets to the users, and accepts the targets following firing and recovery. Components requiring routine maintenance during target turnaround are processed; however, deficient materials discovered in the designated FIR items are forwarded to the depot for repair.

The depot is responsible for repair, to the piece-part level, of FIR items forwarded from the IMA. Depot functions are presently performed by the target contractor, Northrop Corporation, Ventura Division. Long-range plans call for NTS/K to eventually assume this responsibility. Northrop depot maintenance is performed at the company's central repair facility in Ventura, and at a minor repair facility (MRF) located in the NTS/K Target Repair Shop (Building 478).

When the target is deployed to the NTS Fleet Support Department (Hawaii), it is anticipated that a Northrop MRF will function there in a manner similar to that at Keyport.

The following sections present recommended procedures for implementing the PARR-Target system at each of these activities.

IMA DATA REPORTING PROCEDURES

The IMA will initiate logistics, maintenance, repair, and alteration action reports with the preparation of a "PARR Reliability & Maintenance Report - Target" form (13ND NTS 8510/111). This form, reproduced with a sample entry on page A-3, is prepared in accordance with the previously referenced NAVORD OD 46291. The form is the basic reporting vehicle in the PARR-Target program, and will be referred to herein as the "PARR-Target report", "PARR-Target logistics report", etc., as appropriate.

The form for the PARR-Target report is available in both five-part and one-part versions. The five-part form will be used for documenting more critical information, such as deficiencies (see Section 3.3), while the one-part form can be utilized for convenience and economy in documenting such items as routine logistics data.

3.1 PARR-TARGET LOGISTICS REPORTS

The IMA storeroom supervisor will prepare a PARR-Target logistics report, in accordance with NAVORD OD 46291, for:

- a. All targets and selected serialized components (see page A-7) received at an IMA from any source. The DD form 250, "Material Inspection and Receiving Report" (see page A-5) accompanying the received item will serve as the data source for the PARR-Target logistics report.
- b. All targets and selected serialized components (see page A-7) transferred to any other activity, except for FIR items shipped to the manufacturer or depot for repair with a PARR-Target deficiency report (see Section 3.3).

3.2 CONFIGURATION INPUT REQUIREMENTS

An IMA will prepare a complete configuration listing on form NTS 8510-30/11, "Mark 30 Mod 1 - Target Configuration" (see page A-7) each time a target:

- a. Is initially received from the manufacturer
- b. Is received from another maintenance activity

- c. Is transferred to another maintenance activity
- d. Leaves the IMA for an in-water run.

A filled-in example of form NTS 8510-30/11 appears on pages A-7 through A-12. Between the above-noted occasions, changes to configuration listings will be documented on a PARR-Target report.

3.3 PARR-TARGET DEFICIENCY REPORTS

Following are guidelines for filling in the PARR-Target report for documenting deficiencies. (Data blocks of the report not discussed below are considered self-explanatory.) The example form on page A-3 illustrates each of the points covered.

- a. Block F, TEST DOCUMENT/PROCEDURE; and Block H, TEST EQUIPMENT. These blocks will be completed only when the item has failed as a result of testing.
- b. Block J, MATERIAL IDENTIFICATION
 - 1) The SECTION/GROUP block will contain the noun name, drawing number, reference designator, and serial number of next higher assembly. Leave P/D (Parts Disposition) blank.
 - 2) The ASSY/FIR ITEM/PART block will contain the noun name, drawing number, reference designator, and serial number of the FIR item to be removed and shipped. The P/D code will be either F (forwarded to manufacturer) or G (forwarded to depot/FIR repair activity).
 - 3) The SHIPPED TO block will identify the UIC of the destination (depot/manufacturer) of the failed item. It should be noted that there is currently no UIC or FSCM (Federal Supply Code for Manufacturers) established to designate the Northrop MRF or the Navy repair shops at Keyport. Therefore the following UIC codes will be used:

<u>UIC</u>	<u>Activity</u>
00253	Naval Torpedo Station, Keyport FIR Repair Shop
99253	Northrop Minor Repair Facility at Keyport
46253	Naval Torpedo Station, Keyport Electrical Assembly Shop (Shop 98)

3.4 SCORING

The assigning of categorization and classification codes in block L of the PARR-Target report is referred to as "scoring". Each PARR-Target report will be scored to 1) provide management visibility of system material reliability; and 2) point out, for reported deficiencies, the relative priority of need for engineering effort and resources. Scoring, in general, evaluates the cause and relative seriousness of a reported deficiency, together with its potential impact on target mission performance. In so doing it spotlights those deficiencies that are systematic and repetitive, and which should be brought to the attention of management for examination, analysis, and resolution.

Scoring will be performed by the project engineer (P.E.) of the IMA following his review of the PARR-Target report. In scoring, the P.E. will use the guidelines listed below, together with his best engineering judgment. The form illustrated on page A-3 provides an example of the results of a scoring process.

- a. Block L.1. Not used.
- b. Block L.2, Defect Class. Indicates the relative seriousness of the reported deficiency.

- 1) All PARR-Target deficiency reports will be coded as follows:

<u>Code</u>	<u>Meaning</u>
C	<u>Critical Defect</u> — A malfunction or defect that did or would likely result in hazardous or unsafe conditions for personnel using the target.
A	<u>Major Defect</u> — A malfunction or defect that did or would likely result in an in-water mission failure.
M	<u>Minor Defect</u> — A malfunction or defect that did not or would not likely result in an in-water mission failure.
U	<u>Unclassified</u> — A malfunction or defect which cannot be immediately classified due to incomplete run report or incomplete analysis.

- 2) All PARR-Target reports other than those recording deficiencies will be coded as UNCLASSIFIED (U)*.

*The distinction between the use of the word "UNCLASSIFIED" here and in its security context should be borne in mind.

- c. Block L.3. Not used.
- d. Block L.4, Defect Status. Indicates the project engineer's judgment as to the status of or requirement for formal failure analysis and resolution of the reported deficiency.

<u>Code</u>	<u>Meaning</u>
C	<u>Closed</u> — 1) An isolated, nonrepetitive deficiency; formal failure analysis is not required at this time. Or, 2) a previously recognized repetitive failure is known to be under active investigation and resolution.
O	<u>Open</u> — 1) A systematic repetitive failure not being investigated; formal failure analysis is required. Or, 2) a decision on the need for failure analysis cannot be made at this time due to insufficient information.

(Note: Reprogramming is now in progress (September 1974) to accommodate code O (open). Until implementation of this change, code P (pending) will be used rather than code O.)

- e. Block L.5, Defect Origin. Indicates the P.E.'s opinion as to why the defect occurred.

<u>Code</u>	<u>Meaning</u>
QW	Poor quality workmanship by manufacturer.
SW	Poor quality workmanship by Navy.
RL	Poor design or poor material reliability of component.
SP	Inadequate or improper shop procedures or instructions.
RH	Damage resulted from handling on the range during recovery.
(Blank)	Cause unknown.

- f. Block L.6. Not used.

- g. Block L.7, Program. Identifies the target program under which the reported event occurred.

<u>Code</u>	<u>Meaning</u>
ENG	Engineering phase
ACT	Acceptance phase (predeployment program)
PROOF	Proofing phase
R&D	Research and development
ET	Environmental test
FLTXP	Fleet exercise, Pacific
FLTXA	Fleet exercise, Atlantic

(Note: Project engineers may use any three-letter code they desire to identify the program under which the reported event occurred.)

- h. Blocks L.8 thru L.11. Not used. These four blocks are reserved for possible future use.

It should be pointed out that the scoring decisions by the P. E. will be generally based on information available to him in a single IMA. Follow-on repair actions, subsequent deficiencies, and review of similar deficiency reports from other IMAs could generate the need for changes to the original scoring.

3.5 REPORT DISPOSITION

Following preparation and scoring of the PARR-Target report, disposition of copies will be as follows:

<u>Copy</u>	<u>Disposition</u>
White (original)	Recorded in the PARR master log and filed in the PARR master file
Green	Filed in PARR suspense file
Yellow	Attached to defective material and forwarded to manufacturer or depot
Pink	Filed by the target shop foreman
Gold	Filed in the target supply storeroom.

3.5.1 PARR-Target Master Log

The PARR-Target master log is a record, in PARR number sequence, of:

1. PARR number
2. Torpedo Work Request (TWR) number
3. Date of event
4. Subject of report
5. Brief of report
6. Related DR number
7. Date entered into remote terminal.

3.5.2 PARR-Target Master File

The PARR-Target master file contains, by PARR number, the white originals of the PARR-Target reports.

Upon return of the manufacturer's repair record, Northrop discrepancy report form 80-121 (see page A-13), the pertinent repair information will be transcribed onto the original (white) PARR-Target report, stapled to the report, and filed in the master file.

3.5.3 PARR-Target Suspense File

The PARR-Target suspense file is a repository for the green copies of all PARR-Target reports assigned a TWR number.

Upon return of the repaired material from the manufacturer/depot, the green copy will be removed from the suspense file and delivered to the shop foreman, who will then discard his pink copy.

3.5.4 PARR-Target Supply File

The PARR-Target Supply file contains the gold copies of all PARR-Target reports assigned a TWR number and forwarded to the manufacturer/depot with faulty material.

Upon return of the material from the manufacturer/depot with the DR, the supply room supervisor will remove the gold copy from the Supply file, prepare a logistic PARR-Target report for receipt of the material (white original only), and forward it to the project engineer.

The PARR-Target Supply file should be monitored closely to ensure that all target material that has been forwarded to the manufacturer is returned. Failure to follow this procedure can result in loss of material.

The following procedure should be used for the special but frequent case wherein an IMA removes a defective FIR item from a target and hand-delivers it to the manufacturer's MRF for immediate repair and return for reinstallation in the same target:

- a. The IMA will prepare a PARR-Target deficiency report and enter code F (shipped to manufacturer) in the P/D (Parts Disposition) block.
- b. When the repaired material is returned together with a DR, the IMA will initiate a PARR-Target logistics report indicating receipt of the material from the manufacturer.
- c. The IMA will change the P/D code on the original PARR-Target deficiency report from F to J (repaired and reinstalled), and transcribe the DR number and repair actions onto the PARR.

MANUFACTURER DATA-REPORTING PROCEDURES

All material received by the manufacturer for repair will be accompanied by the yellow copy of the PARR-Target report.

The manufacturer will initiate a five-part discrepancy report (form 80-121; see page A-13), in accordance with Northrop "Standard Form Instruction 80-121". The serial number of the PARR-Target report will be entered on the DR and one each supplementary DR prepared in the repair process down to the piece-part level.

Upon completion of Northrop repair action, a copy of each DR will accompany the material returned to the IMA.

Northrop's decision as to whether to perform formal failure analysis will be indicated by the company's Material Review Board (MRB) representative in block 37 of the DR. (ARINC Research recommends that, when failure analysis is to be performed by Northrop, the cognizant Northrop reliability engineer make additional copies of the DR and forward one copy immediately to the IMA. This will make the latter aware that the failure problem is being addressed, a fact that would become particularly significant should the same type of failure recur.)

Upon completion of failure analysis by Northrop, a completed copy of that company's "Failure Analysis Supplement", form 80-91 (see page A-15) is forwarded to the IMA.

DEPOT DATA-REPORTING PROCEDURES

Long-range plans call for NTS/K to assume depot maintenance responsibility for the Target Mk 30. At that time the yellow copy of the PARR-Target report, with the TWR number in block 9, will serve as the NTS target work request.

Maintenance and alteration actions will be documented on form NTS 8900/1, "Maintenance Data Collection and Analysis Program Input" (see page A-17). This form will be prepared in accordance with NTS/Keyport Procedure 10002. The PARR-Target serial number will be entered on the B card of the form in the REF. DOC. NO. block.

FEEDBACK OF REPAIR-ACTION INFORMATION

6.1 MANUFACTURER REPAIR

Repair actions performed by Northrop will be reported via DR form 80-121 (page A-13) in accordance with Northrop standard instructions. The manufacturer will record the PARR-Target deficiency report number on each DR prepared, from the FIR item through the lowest level (subassembly or piece-part) in which repairs related to the FIR item failure were made.

Repaired FIR items will be returned to the IMA by the manufacturer, accompanied by the DR reporting and repair actions. The IMA storeroom supervisor will receive the repaired item and accompanying DR, and update the PARR-Target supply file by removing the applicable PARR-Target deficiency report (gold copy), placing the material in "ready for issue" (RFI) status, and forwarding the DR to the P.E. for completing the repair action narrative on the PARR-Target master file (white copy). The DR number will be recorded on the original of the PARR-Target deficiency report.

Following completion of the manufacturer repair action feedback procedure, by the recording of the DR number and repair actions on the PARR-Target master file, the completed PARR-Target report will be entered into the computer data bank via standard Hazeltine remote terminal procedures.

6.2 MANUFACTURER FAILURE ANALYSIS

Northrop failure analysis of repetitive, systematic, and chronic failures will be performed as directed and funded by the Naval Underwater Systems Center (NUSC). As discussed in Section 4, Northrop's judgment as to whether failure analysis is needed will appear in block 37 of its discrepancy report.

Feedback information to NUSC from the manufacturer concerning failure analysis occurs when the procedure is completed. Results of the analysis will be

reported on the "Northrop Failure Analysis Supplement", form 80-91 (see page A-15), and will include:

- a. Description of failure
- b. Cause of failure
- c. Recommended corrective action
- d. Corrective action taken.

As recommended in Section 4, the manufacturer should also notify NTS (by forwarding a copy of the DR) when the original decision is made that failure analysis is needed.

6.3 DEPOT REPAIR FEEDBACK

When NTS/K assumes depot maintenance responsibility, maintenance actions will be documented on the MDCAP form (page A-17) in accordance with NTS Procedure 10002. The PARR-Target number will be entered on the B card of that form in the REF. DOC. NO. block.

Depot repair feedback can be captured for entry into the data bank by:

- a. Manual extraction and recording of repair actions from the MDCAP raw data forms
- b. Manual extraction and recording of repair actions from 3M data output products
- c. Automated data extraction of 3M data and entry into the PARR system by computer programming.

No particular method has been established for the PARR-Target program. ARINC Research recommends the second of the above procedures as the most effective (there is already a comparable 3M output for Torpedo Mk 46) and the most economical (minimum programming is required).

APPENDIX
PARR-TARGET REPORTING FORMS

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PARR Reliability and Maintenance Report — Target (Form 13ND NTS 8510/111) (5 part)	A-3
Material Inspection and Receiving Report (DD Form 250)	A-5
Mark 30 Mod 1 Target Configuration (Form NTS 8510-30/11)	A-7
Northrop Corporation, Ventura Division Discrepancy Report (Form 80-121)	A-13
Northrop Corporation, Ventura Division Failure Analysis Supplement (Form 80-91)	A-15
NTS/K Maintenance Data Collection and Analysis Program (MDCAP) (Form 13ND NTS 8900/1)	A-17

PARR RELIABILITY & MAINTENANCE REPORT - TARGET

13ND NTS 8510/111 (Rev. 7-74) MOBILE TARGET AND SUPPORT EQUIPMENT

NO. **732247**

SECTION I - IDENTIFICATION

ACTIVITY/SHIP NAME/HULL NUMBER NTS KPT		1. MK 030	MOD 01	TARGET REGISTER NO. 73103	2. RUN NO.	RUN TIME
3. UNIT ID CODE 0,0,2,5,3	4. WORK CENTER	5. JOB SEQ NO.	6. EIC OF BLOCK B EQUIPMENT	7. ACTION DATE MO DAY YR 04 05 74	8. PREP NO. 0,0,2,1	9. TWR NO. 0,0,0,4,3,7
					10. FIRING DATA SHIP UIC MO DAY YR	

SECTION II - DESCRIPTION

A. REPORT TYPE <input type="checkbox"/> MAINTENANCE <input checked="" type="checkbox"/> DEFICIENCY <input type="checkbox"/> ALTERATION/CHANGE <input type="checkbox"/> LOGISTIC (EXPLAIN IN K) <input type="checkbox"/> RECOMMENDATION <input type="checkbox"/> OTHER (EXPLAIN IN K)	B. EQUIP REPT ON <input checked="" type="checkbox"/> TARGET <input type="checkbox"/> SPECIAL SUPPORT EQUIP <input type="checkbox"/> DOCUMENT OR PROCEDURE <input type="checkbox"/> SPARES <input type="checkbox"/> OTHER (EXPLAIN IN K)	C. BATTERY TYPE <input type="checkbox"/> SILVER ZINC <input type="checkbox"/> SILVER CADMIUM <input type="checkbox"/> OTHER (EXPLAIN IN K) MK 27 ONLY - SHUNT PANEL <input type="checkbox"/> I <input type="checkbox"/> II <input type="checkbox"/> III	D. TARGET WORK PHASE <input type="checkbox"/> INITIAL INSPECTION <input type="checkbox"/> PRE-TETHER TEST <input type="checkbox"/> TETHER TEST <input type="checkbox"/> PRE RUN TESTS <input type="checkbox"/> IN WATER RUN <input type="checkbox"/> POST RUN TESTS <input type="checkbox"/> ENVIRONMENTAL TEST <input type="checkbox"/> SUB SYSTEM TESTS <input type="checkbox"/> SPECIAL TEST (EXPLAIN IN K) <input type="checkbox"/> FINAL INSPECTION <input type="checkbox"/> COMPONENT TEST/INSPECTION <input type="checkbox"/> OTHER (EXPLAIN IN K)	E. SUPPORT EQUIP WORK PHASE <input type="checkbox"/> COMPONENT/TARGET TEST <input type="checkbox"/> SUPPORT EQUIP MAINTENANCE CHECKOUT/CAL <input type="checkbox"/> OTHER (EXPLAIN IN K)
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F. TEST DOCUMENT/PROCEDURE NUMBER	VOL	REV	CHG	JS/CL/TABLE	PAGE	PARA/STEP	G. ALT/CHG NO.
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H. TEST EQUIPMENT NAME	MK	MOD	SERIAL NUMBER	DRAWING NO. & REV.	TEST STEP
------------------------	----	-----	---------------	--------------------	-----------

J. MATERIAL IDENTIFICATION	DWG. NO. & REV.	REFERENCE DESIGNATOR	SERIAL NO.	P/D	JS/CL/TABLE	TEST STEP	REPLACEMENT	
							DWG NO. & REV.	SER NO.
SECTION/GROUP GUID SECT ASSY	2821033	BA3	109					
ASSY/FIR. ITEM/PART APU TOP ASSY	3134800	2A1B	103 F				3134800	112

SHIPPED TO 95634	RECEIVED FROM	DR NO. 624207
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K. NARRATIVE (1) DESCRIBE ITEM OR CONDITION (2) INDICATE LOCAL SHOP ACTION (3) ANALYSIS RECOMMENDATION

CONTACTOR IN UPPER APU FAILED DURING SPECIAL TEST. RETURNED TO MANUFACTURER'S MRF FOR FIR REPAIR. SPARE APU(U) SER 112 INSTALLED.

CONTACTOR REPLACED 4/9/74

NO. **732247**

SUPPLEMENTAL TO PARR NUMBER -	CROSS REFERENCE PARR NUMBER -
-------------------------------	-------------------------------

SECTION III SIGNATURE

PERSON PERFORMING MAINTENANCE/ALT	SUPERVISOR/PROJECT ENGINEER Wes Goode	DATE 4/6/74	PAGE 1 of 1
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L. FOR PARR USE ONLY	1. A	2. P	3. RL	4. ENG	5. ENG	6. ENG	7. ENG	8. ENG	9. ENG	10. ENG	11. ENG
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BEST AVAILABLE COPY

MATERIAL INSPECTION AND RECEIVING REPORT		1 PROC INSTRUMENT IDEN/CONTRACT:		ORDER NO	6 INVOICE NO	7 PAGE OF
					DATE	8 ACCEPTANCE POINT
2 SHIPMENT NO	3 DATE SHIPPED	4 B L TCN		5 DISCOUNT TERMS		
9 PRIME CONTRACTOR CODE		10 ADMINISTERED BY CODE				
11 SHIPPED FROM (If other than 9) CODE		FOB		12 PAYMENT WILL BE MADE BY CODE		
13 SHIPPED TO CODE		14 MARKED FOR CODE				
		SUPPLY OFFICER NAVAL TORPEDO STATION KEYPORT, WASHINGTON 98345				
15 ITEM NO	16 STOCK/PART NO <small>(Indicate number of shipping containers - type of container - container number.)</small>	DESCRIPTION	17 QUANTITY SHIP/REC'D	18 UNIT	19 UNIT PRICE	20 AMOUNT
21 PROCUREMENT QUALITY ASSURANCE				22 RECEIVER'S USE		
A ORIGIN <input type="checkbox"/> PQA <input type="checkbox"/> ACCEPTANCE of listed items has been made by me or under my supervision and they conform to contract, except as noted herein or on supporting documents.		B DESTINATION <input type="checkbox"/> PQA <input type="checkbox"/> ACCEPTANCE of listed items has been made by me or under my supervision and they conform to contract, except as noted herein or on supporting documents.		Quantities shown in column 17 were received in apparent good condition except as noted.		
DATE _____ SIGNATURE OF AUTH GOVT REP _____ TYPED NAME AND OFFICE _____		DATE _____ SIGNATURE OF AUTH GOVT REP _____ TYPED NAME AND TITLE _____		DATE _____ SIGNATURE OF AUTH GOVT REP _____ TYPED NAME AND OFFICE _____		
23 CONTRACTOR USE ONLY				<small>*If quantity received by the Government is the same as quantity shipped, indicate by (✓) mark; if different, enter actual quantity received below quantity shipped and encircle.</small>		

MARK 30 MOD 1 - TARGET CONFIGURATION
 NTS 8510-30/11 (8-74)

TARGET NO.

CONFIGURATION			Unit. Insp.	Tether Test	Run	Run	Run	Ship
REF DESIG	NOMENCLATURE	DRAWING NO.	DATE	S/N	S/N	S/N	S/N	S/N
8A1	NOSE/ACOU HULL	2821031						
1A1	ELEC ASY ACOUS	3134430						
1A1A1	ASAT TGT-ST BD	3134508						
1A1A3	ASAT CROSS FLT	3134516						
1A1A4	ASAT EQUAL BD	3134520						
1A1A5	ACL, BOARD 1	3134618						
1A1A6	ACL, BOARD 2	3134622						
1A1A7	ACL, BOARD 3	3134626						
1A1A8	ACL, BOARD 4	3134630						
1A1A9	ACL, BOARD 5	3134634						
1A1A10	ACL, BOARD 6	3134638						
1A1A11	ACL, BOARD 7	3134642						
1A1A13	ACL, BOARD 8	3134646						
1A1A14	TONAL HARM GEN	3134661						
1A1A15	TONAL SPD FREQ	3134468						
1A1A16	TONAL FREQ DIV	3134418						
1A1A17	TONAL FREQ DIV	3134418						
1A1A18	TCNAL FREQ DIV	3134418						
1A1A19	TONAL SQ-SINE	3134476						
1A1A20	TONAL SQ-SINE	3134476						
1A1A21	TONAL SQ-SINE	3134476						
1A1A22	TONAL SQ-SINE	3134476						
1A1A23	TONAL SQ-SINE	3134476						
1A1A24	TONAL SQ-SINE	3134476						
1A1A25	TONAL LSG ATTN	3134480						
1A1A26	TONAL SQ-SINE	3134476						

MARK 30 MOD 1 - TARGET CONFIGURATION
 NTS 8510-30/11 (8-74)

TARGET NO.

CONFIGURATION			Init. Insp.	Tether Test	Run	Run	Run	Ship
REF DESIG	NOMENCLATURE	DRAWING NO.	S/N	S/N	S/N	S/N	S/N	S/N
1A1A27	TONAL SQ-SINE	3134476						
1A1A28	TONAL SQ-SINE	3134476						
1A1A29	TONAL SQ-SINE	3134476						
1A1A30	TONAL SQ-SINE	3134476						
1A1A31	TONAL SQ-SINE	3134476						
1A1A32	TONAL LSG ATTN	3134480						
1A1A33	TONAL SUM-EQUL	3134484						
1A1A34	ACI TIMING	3134492						
1A1A35	ACI NOISE GEN	3134496						
1A1A36	ACI TEST LOGIC	3134500						
1A1A37	ACI CAS LOGIC	3134504						
1A1A38	ACI EOR	3134532						
1A1A39	ACI LOG AMP	3134524						
1A1A40	ACI LOG PREAMP	3134528						
1A1A42	ATAT BRD 1	3134536						
1A1A43	ATAT SIG GATIN	3134540						
1A1A44	ATAT SIG PROCS	3134544						
1A1A45	ATAT TGT STRGH	3134548						
1A1A46	TONAL ROM DEST	3134665						
1A1A48	TONAL EOR/PROC	3134699						
1A2	PWR AMP AC TOP	3134410						
1A2A1	PWR AMP 400TLP	3134552						
1A2A2	PWR AMP 200LFP	3134396						
1A2A3	PWR AMP 400MFP	3134552						
1A2A4	PWR SEQ-SIG CD	3134695						
1A2A5	PWR RECTIFIER	3134580						

MARK 30 MOD 1 - TARGET CONFIGURATION
 NTS 8510-30/11 (8-74)

TARGET NO. _____

CONFIGURATION			Init. Insp.	Tether Test	Run	Run	Run	Ship
REF DESIG	NOMENCLATURE	DRAWING NO.	DATE	S/N	S/N	S/N	S/N	S/N
1A3	PWR AMP AC BOT	3134400						
1A3A1	PWR AMP 400THP	3134552						
1A3A2	PWR AMP 200LFP	3134396						
1A3A3	PWR AMP 400HFP	3134552						
4BT1	EOR BATTERY	2819301						
1A5	CAPACITOR BANK	3134690						
8A2	BATT HULL SECT	2821032						
2BTOA	AG-ZN BAT ASY	2819689						
2BT1A	AG-ZN MOD ARU	2819681						
2BT2A	AG-ZN MOD FRU	2819682						
2BT3A	AG-ZN MOD FLU	2819683						
2BT4A	AG-ZN MOD ALU	2819684						
2BT5A	AG-ZN MOD ALL	2819685						
2BT6A	AG-ZN MOD FLL	2819686						
2BT7A	AG-ZN MOD FRL	2819687						
2BT8A	AG-ZN MOD ARL	2819688						
2BTOB	AC-CD BAT ASY	2821043						
2BT1B	AG-CD MOD ARU	2819452						
2BT2B	AG-CD MOD FRU	2819453						
2BT3B	AG-CD MOD FLU	2819454						
2BT4B	AG-CD MOD ALU	2819455						
2BT5B	AG-CD MOD ALL	2819456						
2BT6B	AG-CD MOD FLL	2819457						
2BT7B	AG-CD MOD FRL	2819458						
2BT8B	AG-CD MOD ARL	2819459						
8A3	G/C HULL SECT	2821033						

MARK 30 MOD 1 - TARGET CONFIGURATION
 NTS 8510-30/11 (8-74)

TARGET NO.

CONFIGURATION			DATE	Init. Insp.	Tether Test	Run	Run	Run	Ship
REF DESIG	NOMENCLATURE	DRAWING NO.	S/N	S/N	S/N	S/N	S/N	S/N	S/N
1A4	ROM PAYLD PROG	3134600							
2A1A	APU BOTTOM ASY	3134900							
2A1AA1	PWR SUPPLY ASY	3134914							
2A1A1A	APU BRD (G/C)	3134906							
2A1A2A	APU BRD AC LOG	3134910							
2A1A3A	APU BRD AC PWR	3134922							
2A1A4A	APU BRD (CAS)	3134880							
2A1B	APU TOP ASSY	3134800							
2A1B1A	APU BRD (MAD)	3134806							
2A1B2A	APU BRD (AUX)	3134810							
3A1	DIGTL G/C SYST	2819651							
3A3	PRESS SENS SUB	2819652							
5A1	CASUALTY NTRK	2819760							
5A1A1	CAS CRD ASY 1	2819766							
5A1A2	CAS CRD ASY 2	2819768							
5A1A3	CAS CRD ASY 3	2819770							
5A1A4	CAS CRD ASY 4	2819772							
5A1A5	CAS CRD ASY 5	2819774							
5A1A6	CAS CRD ASY 6	3135226							
5A1A7	CAS CRD ASY 7	2819778							
5A1A8	CAS CRD ASY 8	2819780							
5A1A9	CAS CRD ASY 9	2819782							
5A1A10	CAS CRD ASY 10	2819784							
5A4	CONT/TEST PAN	2819710							
7A1	PERF RECORDER	2819721							
7A1A1	PERF REC CRD 1	2819734							

MARK 30 MOD 1 - TARGET CONFIGURATION
 NTS 8510-30/11 (9-74)

TARGET NO. _____

CONFIGURATION			Unit. Insp.	Tether Test	Run _____	Run _____	Run _____	Ship
REF DESIG	NOMENCLATURE	DRAWING NO.	DATE	S/N	S/N	S/N	S/N	S/N
7A1A2	PERF REC CRD 2	2819742						
7A1A3	PERF REC CRD 3	2819746						
7A2A	O-GRAPH FWD GC	2819723-1						
7A2B	O-GRAPH AFT AC	2819723-2						
8A4	XDCR HULL SECT	2821034						
1A6A	PROJ HF PORT	2819954						
1A6B	PROJ HF STBD	2819954						
1A7A	PROJ MF PORT	2819953						
1A7B	PROJ MF STBD	2819953						
1A8A	LSG PROJ P U	2819952-1						
1A8B	LSG PROJ S U	2819952-1						
1A8C	LSG PROJ P L	2819952-1						
1A8D	LSG PROJ S L	2819952-1						
1A9	ATAT TUNE NTWK	3135220						
1A9A1	INDUCTOR	3135573						
1A9A2	INDUCTOR	3135574						
8A4A1	TONAL COMP	2819952-2						
8A5	FWD TAIL HULL	2821035						
2A2	SS LOG ASSY	2820928						
2A2A1	SS LOG CARD 1	3135161						
2A2A2	SS LOG CARD 2	3135164						
2A2A3	SS LOG CARD 3	3135361						
2A2A4	SS LOG CARD 4	3135364						
2A3	PWR SWITCH ASY	2820991						
2A4	PWR SWITCH CON	2820950						
2A5	AUX PWR SUPPLY	2820980						

MARK 30 MOD 1 - TARGET CONFIGURATION
 NTS 8510-30/11 (8-74)

TARGET NO. _____

CONFIGURATION			Init. Insp.	Father Test	Run _____	Run _____	Run _____	Ship
REF DESIG	NOMENCLATURE	DRAWING NO.	DATE	S/N	S/N	S/N	S/N	S/N
2A5A1	SS AUX PWR CRD	2820976						
2A5A2	COMPONENT BRD	3135191						
2B1	107 HP MOTOR	2820850						
4A1	EOR RADIO	2820820						
4A1A1	RADIO BEACON	2820860						
4A1A1A2	DUMMY LOAD ASY	2820879						
4A1L1	SOLENOID VALVE	2820834						
8A6	AFT TAIL HULL	2821036						
1A11	TOWED ARRAY	3134595						
3A2	CONTROL ASSY	2820851						
3A2A1A	ACTUATOR AMP	2820851-2						
3A2A1B	ACTUATOR AMP	2820851-2						
3A2A1C	ACTUATOR AMP	2820851-2						
3A2A2A	ACTUATOR	2820851-1						
3A2A2B	ACTUATOR	2820851-1						
3A2A2C	ACTUATOR	2820851-1						
5S1	LANYARD SWITCH	2820854						
8A6A1	SHAFT BRG-SEAL	2820852						
8A6A2	PROP AFT RH	2820845						
8A6A3	PROP FWD LH	2820846						
8A6A4	CONT SURF TOP	2820801						
8A6A5A	CONT SURF ELEV	2829804						
8A6A5B	CONT SURF ELEV	2829804						
8A6A6	CONT SURF BOT	2820805						
W606J1	UMBILICAL CONN	758008						
W702	CABLE ASY SKEG	3134597						

R 622242

DISCREPANCY REPORT

Northrop Corporation
Ventura Division

PAGE _____ OF _____ DATE _____ 19__

COMPLETE FOR RECEIVING REJECTIONS ONLY

1. PART NO.	2. PART NAME	3. QTY REC	4. QTY REF	19. VENDOR	20. VOR NO.
5. MANUFACTURING ORDER	6. NEXT ASSY PART NO.	7. STOCK SHIPP	8. UNIT SERIAL NO.	9. ASSEMBLY SERIAL NO.	10. FAILED DURING
11. PROJECT NAME	12. PROJ NO.	13. ITEM TASK	14. CHARGE NO.	15. DOT	16. REC NO.
18. CORRECTIVE ACTION		25. ACCOUNTING CHARGE NO.			
27. 28. 29. SOK NO. QTY CODE DEF		30. DISCREPANCY		35. TYPE I <input type="checkbox"/> TYPE II <input type="checkbox"/>	
31. WITHHOLDING INSP. SIGN.		32. STAMP	33. DATE	34. INSP. SUPV. APPROVAL	36. REPETITIVE <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>
47. MATERIAL ADJUSTMENT ACTION		RESPONSIBILITY CHARGE		37. FAILURE ANALYSIS <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>	
NORTHROP	1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/>	BUYERS SIGNATURE		38. 39. 40. NO. RTE	
VENDOR	4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/>	SHIPPING DEBIT MEMO NO.		41. 42. INSP. DATE	
MINOR DISPOSITION	MATERIAL ADJUSTMENT INSTRUCTIONS		43. INSPECTION DATE		
COMMODITY CODE	DATE		44. MANUF. ORDER NO.		
ACCEPT	INSP	STAMP	45. 46. DISPOSITION		
		BY _____		47. 48. DISPOSITION	
		DATE _____ 19__		49. 50. DISPOSITION	
				51. 52. DISPOSITION	
				53. 54. DISPOSITION	
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				99. 100. DISPOSITION	

A-13/A-14

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FORM 80121 (R. 5-72)

FAILURE ANALYSIS SUPPLEMENT
FORM 80-91 (3-82)

NORTHROP VENTURA

DSFI No. 80-91
Page 3

P. NO. (1)		PART NAME (2)		SERIAL NO. (3)	QTY. (4)	IDR / RRR SERIAL NO. (5)
ORGN. REJECTED FROM (6)	ORGN. RESPONSIBLE / VENDOR NAME (7)	TEST WORK ORDER NO. (8)	PARAGRAPH	REVISION	OPER. TIME STARTS (9)	PAGE OF _____ DATE 19__
TYPE OF DISCREPANCY (10) <input type="checkbox"/> FUNCTIONAL <input type="checkbox"/> NON-FUNCTIONAL		FAILED DURING (11) <input type="checkbox"/> COMPONENT TEST <input type="checkbox"/> SUBSYSTEM TEST		<input type="checkbox"/> VEHICLE SYSTEM TEST <input type="checkbox"/> OTHER		

DESCRIPTION OF FAILURE OR MODE (12)

		(13) _____ Q.C. ENGINEER SIGNATURE		DATE 19__
ROUTE TO ORGN. (14)	INSTRUCTIONS (15)		PERFORMED BY (16)	

CAUSE OF FAILURE (17)

RECOMMENDED CORRECTIVE ACTION (19)		(18) _____ SIGNATURE	DATE 19__

CORRECTIVE ACTION TAKEN (21)		(20) _____ SIGNATURE	DATE 19__

		(22) _____ ACKNOWLEDGED	DATE 19__
--	--	----------------------------	-----------

START DATE	DCN	REC'D	COMP	RPH	ALT	T/A	OTH	UNK	SYMP	TOM	JOB ORDER NO.	UNITS	MAN HOURS	SPECIAL IDENTIFICATION	STATION	INSPECTOR BADGE NO.
------------	-----	-------	------	-----	-----	-----	-----	-----	------	-----	---------------	-------	-----------	------------------------	---------	---------------------

ORIGINATING ACTIVITY DOCUMENTATION																
UIC	DATE	DCN	FAIL/SHIP DATE	VERIFY	REF. DOC. NO.											

PARENT UNIT				REPARABLE ITEM/ASSEMBLY													
MK	MOD	SER/REG NO.	NOMENCLATURE	MK	MOD	IDENTIFICATION NO.	SERIAL NO.	FSCM	EIC								

REPARABLE ITEM/ASSEMBLY DEFECT REPORT																
DRIN	TEST DOCUMENT NO.	CHECK LIST	TEST STEP FAILED	AMT OUT OF SPEC	TEST SET SERIAL NO.	MAL	MAL	MAL	BADGE NO.							

ALTERATIONS INSTALLED																
FINAL IDENTIFICATION NO.	FINAL S/N	ALTERATION NO.	ALTERATION NO.	ALTERATION NO.	ALTERATION NO.	BADGE NO.										

REMARKS																

PARTS REMOVED/INSTALLED																
REM INST	NOMENCLATURE	PART NO.	REF DESIGNATION	SERIAL NO.	MAL	QUAN	FSCM	BADGE NO.								

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

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