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DRL No. 3
DRD No. MA-069TC
JSC No. 10990

NASA CR-
147596

(NASA-CR-147596) SMS DESIGN REVIEW PLAN,
TYPE 1 DATA (Singer Co., Binghamton, N.Y.)
10 p HC \$3.50 CSCI 14B

N76-22234

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G3/14 25347

SMS
Design Review Plan
"Preliminary" - NASA Approval Pending
NASA Contract NAS-9-14910
Type 1 Data
Date: 2 April 1976



Singer
Simulation Products
Division
Binghamton, New York

SMS PDR PLAN

FOREWORD

The SMS PDR Plan is submitted incrementally 15 days prior to the associated PDR's. The initial release contains a complete schedule for all PDR's plus the agendas for the first PDR's scheduled. Subsequent releases will include only the agendas for the related PDR's, plus an updated PDR schedule (if applicable).

SMS PDR PLAN

Table of Contents

- 1.0 General**
- 2.0 PDR Agendas**
- 3.0 PDR/CDR Schedule**

Preliminary Design Review Plan
DRL Item 3, DRD MA-069TC

1.0 General

The Preliminary Design Reviews (PDR's) for the SMS will be held incrementally consistent with the activity schedules for the respective subsystems and Work Packages. The remainder of this paragraph describes general ground rules for each PDR to be held. The specific agendas for each paragraph are described in paragraph 2.

Reviews will be held at the location (Houston - Binghamton or APO) responsible for design activities. A Singer representative will be assigned to take minutes at each PDR; these minutes will be signed off by both NASA and Singer to signify completion of each PDR. These minutes will be incorporated into the Design Review Summary Report (DRL Item 4, DRD CM-024TC).

The documentation submitted for use during the PDR's includes:

For Software PDR's

- 1) Preliminary Interface Control Documents (DRL Item 12, DRD CM022TB) (When applicable).
- 2) System Performance Requirements (Part of DRL Item 23, DRD SE-079TA)
- 3) Deviations and Trade-Offs (Part of DRL Item 23, DRD SE-079TA).
- 4) Assumptions (DRL Item 27, DRD SE-084TB).

5) Design Data List (DRL Item 27, DRD SE-084TB)

For Hardware PDR's

- 1) Preliminary Interface Control Documents (When applicable).
- 2) CEI Specifications, Part I (DRL Item 8, DRD SE-227T).
- 3) Deviations and Trade-Offs (Part of DRL Item 23, DRD SE-079TA).
- 4) Assumptions (DRL Item 27, DRD SE-084TB)
- 5) Design Data List (DRL Item 27, DRD SE-084TB).

Changes to Type I documentation (CEI Specification or the Interface Control Document), when agreed to during a PDR, will be incorporated into the documents via a formal change notice.

2.0 PDR Agendas

The following sheets give the agendas for each PDR, plus the date and time for each technical subject to be covered.

DRL No. 3
DRD No. MA-069TC
JSC No. 10990

SMS PDR Plan

Release Control Sheet

First Release - 2 April 1976

This release of the PDR Plan consists of the following section(s):

<u>Section</u>	<u>Description</u>
20	Crew Station
22	Instructor/Operator Station
24	Signal Conversion & Ancillary

2.0 PDR AGENDA

April 20, 1976 - WP #20 (Power and Grounding)

<u>Description</u>	<u>Time</u>	<u>Name</u>
Introduction & Overall Requirements	9:00 AM	T. Gerek
Power and Grounding Hardware Design	9:10 AM	F. Carver
CEI Review	10:30	T. Gerek
Data Book Review	10:45	T. Gerek
Open Discussion	10:50	

WP #20 (Crew Station)

Introduction & Overall Requirements	1:00 PM	T. Gerek
Controls & Display Hardware Design	1:15	A. Ulangca/T. Gerek
Fwd Structure Hardware Design	2:30	T. Gerek/J. Donnell
CEI Review	2:50	A. Ulangca
Data Book Review	3:15	A. Ulangca/J. Donnell
Open Discussion	3:30	

April 21, 1976 - WP #22 (IOS)

Intruction & Overall Requirements	9:00 AM	T. Gerek
IS/OS Console Panel Design	9:10 AM	D. Bailey/A. Ulangca
CRT Hardware Design	10:30 AM	C. Mortiner
CEI & Data Book Review	11:30 AM	T. Gerek/A. Ulangca
Lunch	12:00 AM	
Open Discussion	1:00 PM	

3.0

PDR/CDR SCHEDULE

SMS PDR/CDR
SCHEDULES FBCSS

WP		WEEK ENDING DATES	
		PDR	CDR
1	1.2.1.1-EPS-FCP PSRD EPDCS	8/20/6	11/12/6
		10/22/6	12/17/6
		10/22/6	12/17/6
2	1.2.1.2-MPS-APU HPS	8/20/6	11/26/6
		10/29/6	1/7/7
3	1.2.1.3-MPS/ET-MAIN ENG & PROPULSION SSMEC	10/22/6	12/17/6
		10/22/6	12/17/6
4	1.2.1.4-SRB-SRB	10/29/6	12/17/6
5	1.2.1.5-RCS-RCS	9/17/6	12/10/6
6	1.2.1.6-OMS	10/15/6	12/3/6
7	1.2.1.7-GN&C-C&D BMS IMU STAR TRACKER RENOZ RADAR GNCI ADS TVC	11/12/6	1/14/7
		10/15/6	12/3/6
		10/22/6	12/3/6
		11/12/6	1/14/7
		10/22/6	1/14/7
		11/12/6	1/14/7
		11/12/6	1/14/7
		11/12/6	1/14/7
8	1.2.1.8-C&TS-CW PCM-MU MEAS PROCESS	10/15/6	12/17/6
		10/15/6	12/17/6
		11/5/6	12/17/6
8	1.2.1.8-C&TS-BGM SFWR	5/28/6	8/27/6
9	1.2.1.9-ECLSS-FLS SRS APS GSS ACS WLS	9/17/6	11/19/6
		10/22/6	12/17/6
		9/17/6	12/17/6
		10/22/6	12/17/6
		9/17/6	11/5/6
		10/1/6	11/19/6
10	1.2.1.10-DPS-BTU CONF MGMT EIU MEC BTU FORMATTER	10/15/6	2/25/7
		10/15/6	2/25/7
		10/15/6	2/25/7
		11/26/6	2/25/7
11	1.2.1.11-MECH SYS-MECH SYS	12/10/6	2/4/7
12	1.2 PAYLOAD		

WP		WEEK ENDING DATES	
		PDR	CDR
13	1.2.2.1-VEH DYN-OTEOM	9/17/6	12/17/6
	OREOM	9/17/6	12/17/6
	PEOM	10/22/6	12/17/6
	TREOM	9/17/6	11/5/6
	TVACS	9/17/6	11/5/6
	TTEOM	12/3/6	2/18/6
	MASS PROP	8/20/6	10/15/6
	GEO ENVIR	7/23/6	9/17/6
	OAERO	11/5/6	1/14/7
	TAERO	11/5/6	1/14/7
	OEOMI	11/26/6	2/18/7
	TEOMI	11/26/6	2/18/7
13	1.2.2.1-VEH CYN-BGM SFWR	7/16/6	10/1/6
14	1.2.2.2-MCCI INTEC-SFWR	12/3/6	4/8/7
	HDWR	9/24/6	1/28/7
15	1.2.2.3-IGS (APO)-SCAN LINE COMPUTER	5/14/6	7/2/6
	VIS EFFECTS GEN	5/14/6	7/2/6
	FRAME CALCULATOR	5/14/6	7/2/6
	SOFTWARE	5/14/6	7/2/6
	COMPILER	5/14/6	7/2/6
	DATA BASE GEN	5/14/6	7/2/6
	COMPUTER INTFC UNIT	5/14/6	10/1/6
16	1.2.2.4-IDS-STRUCTURE	5/14/6	10/1/6
	ELECTRONICS	5/14/6	10/1/6
17	1.2.2.5-IP&C-VIDEO PROCESSOR & VIS EFFECTS GEN.	5/14/6	10/1/6
	TIMING/SYNC	5/14/6	10/1/6
	VIS PWR SYS	5/14/6	10/1/6
	TEST & MAINT PNLS	5/14/6	10/1/6
18	1.2.3.1-SUPPORT SFWR (BGM)-IOS OFF-LINE	5/28/6	8/27/6
	IOS ON-LINE	5/28/6	8/27/6
18	1.2.3.1-SUPPORT SFWR-MASTER CONTROL	9/17/6	11/12/6
	REAL TIME I/O	9/17/6	11/12/6
	MASTER TIMING	9/17/6	11/12/6
	DATA RETRIEVAL	9/17/6	11/12/6
	DATA LOGGING	9/17/6	11/12/6
	MONITOR	9/17/6	11/12/6
	SYSTEM STRUCT	9/17/6	11/12/6
	RECORD/PLAYBACK	1/7/7	3/4/7
	OBC SUPPORT SFWR	4/15/7	7/8/7
19	1.2.3.2-UTILITY SFWR-SDPSM	9/17/6	11/26/6
	ADD UP	8/27/6	10/8/6
	INITIAL COND MGMT	12/17/6	2/4/7
	CS/READY	2/18/7	4/22/7
	AN/READY	3/4/7	4/29/7
	INTERF DIAG	3/4/7	5/6/7

<u>WP</u>		WEEK ENDING DATES	
		PDR	CDR
20	1.2.4.1-CREW STATION-COCKPIT SUPPORT STRUCT	4/16/6	7/2/6
	FWD SHELL & FLOOR FRAME	4/16/6	7/2/6
	AFT SHELL & FLOOR FRAME	4/16/6	7/2/6
	FWD O/H STRUCT	4/16/6	7/2/6
	FWD CONTROL INSTL	4/16/6	7/2/6
	AFT MSS & OOS STRUCT	4/16/6	7/2/6
	FWD CTR CONSOLE PNLS	4/16/6	7/2/6
	FWD CONSOLE PANELS	4/16/6	7/2/6
	FWD L/H & R/H CONSOLE PNLS	4/16/6	7/2/6
	FWD O/H CONSOLE PANELS	4/16/6	7/2/6
	AFT MSS & OOS PANELS	4/16/6	7/2/6
21	1.2 MOTION		
22	1.2.4.2-IO-CONSOLES	4/9/6	7/30/6
	PANELS	4/9/6	7/30/6
	CRT INSTL	4/9/6	7/30/6
23	1.2.4.3-DIGITAL COMPUTER COMPLEX	6/18/6	10/1/6
24	1.2.4.4-SCE & ANCIL EQUIP-SCE & WTFC CABINETS	4/30/6	10/1/6
	POWER CABINET	4/16/6	8/27/6
	PERIPHERAL CABINETS:		
	CTE	7/2/6	8/27/6
	VOICE COMM	5/14/6	7/30/6
	AURAL CUE	7/2/6	8/27/6